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ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.(a)

To one long engaged in the practice of Medicine, there are few conclusions more striking than the general one of the uncertainty of the art. His whole career seems to be made up of a series of failures and successes. He may deem himself fortunate if the successes preponderate over the failures, or, at least, by their magnitude and prominence they throw these latter into the shade. Of course, much may be said of the imperfections and shortcomings of the art; and more still may be urged on the intractability of disease, and the inevitability of death. It is not to be supposed that we are to make our patients immortal. But it is not unreasonable on the part of the public to expect us to say what we can cure, and what we cannot cure, and to look for results more or less in accordance with our predictions; and it is equally reasonable on our part to point out that although in many instances we can fulfil these expectations, yet in others the powers of health and disease, of life and death, may be so nicely balanced that it is impossible to predict the result with any certainty. And this candid avowal of failure in our prognostic powers is more safe and more honest than bold guesses at the result, which may be denounced as sheer gambling with the chances of life and death.

In truth, the fair appreciation of success and failure in Medicine will depend much on the intelligence of the community. No doubt, of late years, the public mind has become more enlightened, and can distinguish between organic and functional disease, and will not expect great achievements in the former, where structure and mechanism are extensively injured. But neither the public nor the Professional mind is always alive to the equal impotence of Medicine in those terrible disorders in which a noxious ferment, brewing in the living blood, converts its life-giving stream into a channel of deadly poison, which arrests and perverts the functions, and reduces the whole body to a mass of corruption.

Observe a bad case of malignant scarlatina, from the first proclaiming the overwhelming virulence of its poison. Note the preceding languor, headache, and loss of appetite, then the rigor, followed by unequal reaction and abnormal heat, with extreme prostration of body and mind, the pulse, first fluttering and unequal, then frequent, liquid, or thready; the stupor, or muttering delirium, dim eye, dusky rash, dark, congested, and swollen throat, secretions (if any) murky and offensive in the extreme. What is such a case but one of inevitable death? A person plunged into boiling water, or poisoned with a large dose of prussic acid, is not more hopelessly beyond the reach of art. All Medicine there is powerless—all failure! And it may be well if two, three, or more of the family are not swept off by the irresistible pestilence.

Look, again, at an instance of unmodified petechial or purpural small-pox, with its livid congestions and blood-oozing tissues, showing the poisoned state of the blood; the eruption copious, but flat-spreading, with no protective margins of fibrin, so that the whole body becomes speedily imbued with the fatal poison, with no power to resist it. Medicine here is all failure! The full-blown plague comes like the blast of death itself!

So, too, of cholera and other diseases in their most malignant forms, the destroying force is so strong that the powers of life, and the agents by which we support them, offer little or no resistance. In all such cases Medicine proves a failure.

Sometimes, likewise, we find other kinds of disease baffle us by their intensity, their extent, the vitality of the organ attacked, or the destructiveness or malignancy of the morbid process. Thus, severe inflammation attacking vital organs, especially when rapidly proceeding to alteration of structure; organic disease, mechanically or otherwise injuring important functions; and even functional disorders, when intensely affecting a vital organ—as the heart or the medulla—may overmatch our remedial powers, and make Medicine a failure.

CAUSES OF FAILURE IN MEDICINE.

I. Overpowering nature of disease—

- *Structural*, from { Extent / Vitality / Malignancy / Destructiveness } of part involved.
- *Functional*, from { Intensity. / Duration. / Vitality of organ { *e.g.*, syncope, shock, tetanus, etc.
- *Blood-poisoning* .. { Strength of poison. / Defective power of resistance and elimination.

II. Error in { *Diagnosis.* / *Prognosis.* / *Therapeutics* { Drugs. / Diet. / Regimen.

This table brings before us a classification of the chief causes of failure in Medicine. The first class includes those already noticed, in which the amount or the intensity of the disease exceeds the powers of nature and art to overcome it; and the consideration of this limit to our art may well keep us humble. But, that we may be heedful as well as humble, the table warns us that failure may arise also from errors on our own part in diagnosis, prognosis, and in treatment. Such errors, although more or less the common lot of humanity, are to be held up as avoidable; and it is our obvious duty to watch and guard against them with all possible vigilance and energy.

Now, in order to avoid as much as possible these causes of failure, and to aim at achieving the greatest attainable amount of success, it may be profitable to go back to principles, and survey in the abstract the chief objects of Medicine. In the fulfilment of these are comprehended the elements of success; and we may hopefully and profitably comment on this side of the picture for our encouragement.

OBJECTS OF MEDICINE.

- *Preliminary* { Diagnosis { Detection and distinction } of disease / Prognosis { Valuation and calculation } of powers of { Health and disease.
- *Final* { Cure. / Prevention. } Success A. / Mitigation and retardation of disease. / Prolongation and utilisation of life. / Alleviation of suffering. } Success B.

The preliminary objects of Medicine—the distinction and appreciation of the true nature of disease, and of its relation to the health-force of the body—are of the highest importance to the scientific Physician, inasmuch as they are generally fundamental to his success in the *final object*, the treatment of disease. Diagnosis is not the mere detection of disease as a name, or a distinct entity; it is such a knowledge as enables one to discern disease in all its characters and bearings, in relation to other diseases, and in relation to the powers of health remaining in the body. Such a knowledge, combined with that supplied from past experience of similar cases, will furnish us with the surest means of prognosticating the result; and further, conjoined with a due acquaintance with the powers of remedial agents, will prove the *grand final object*, the cure of disease.

So, too, prognosis does not consist in a mere empirical observation of good and bad signs, such as any experienced nurse or shrewd attendant, however ignorant, might exercise with some rude semblance of success. Scientific prognosis is to be founded on a careful valuation and calculation of the relative powers of disease and of health in the system, and, by the light of past experience, estimating and striking the balance between them. It is by such a rational and circumspect procedure that we may hope to escape those errors in prognosis and diagnosis which we have classed among the causes of failure in Medicine.

Proceeding next to the *final objects of Medicine*, obviously, the greatest are the complete cure and entire prevention of disease, the substitution of life and health for disease and death. To accomplish these is to achieve the grandest successes of our art. To restore a person from an extreme of suffering

(a) Various circumstances have delayed the appearance of these Lectures, of which no authentic report has yet been published. Their delivery was undertaken at the urgent and repeated request of the late Dr. Mayo, then President of the College. He went out of office in the following year, and the usual custom of appointing the same Lumleian Lecturer for two successive years was discontinued; therefore, the latter parts of these papers, although prepared for the lectures, were not delivered.

and weakness, from frightful disorders of body and mind, from a dangerous struggle with death itself, to a state of ease, health, and strength, is indeed the best work of the Physician. But he must expect often to divide the credit with nature or the sound constitution of the patient; and it surely is not less creditable to his sagacity and prudence, if his interference consists mainly in watching for and promoting the health-restoring processes of nature, rather than in a random exhibition of empirical remedies. These great successes may be looked for in cases of acute disease, fevers, inflammations, and in a large proportion of functional disorders; and they are the more signal, the more intense and aggravated the disease has been.

Such cases are, however, more commonly within the scope of the ordinary family Practitioner than of London Physicians. These, especially the consulting class, have hardly a fair share of curable cases. They are rarely called in till danger is imminent, too often not till hope is past, and disease triumphant; and if they now and then do get the credit of rescuing a case from impending death, more frequently they have the melancholy office of endorsing a death-warrant, sometimes reserving in their own breasts the secret regret that they had been called in too late. But there is also a secret success that will now and then gladden the heart of the consulting Physician, and give him the inward satisfaction of doing good, although he would fain conceal it from public notice. It is where Medicine has hitherto failed through error in diagnosis or treatment (see table of failures), and it is not too late to retrieve the error. The Physician confidentially instructs the previous attendant, alters the treatment, and thereby transfers the case from the list of failures to that of successes.

It cannot be questioned that the prevention of disease deserves to take rank among the noblest aims of Medicine, and we may well award the highest grade of success to the signal manner in which the mortality, in certain localities and in certain classes of persons, has been reduced by proper attention to the dictates of sanitary science. The lives thus to be saved may be counted by hundreds and by thousands. Yet how little of individual gratitude does the sanitarian reap from all his beneficent labours! If he who showed how to draw lightning from the clouds and send it harmless to the earth was hailed as a public benefactor, not less should those who point out how to stop the risings of the noisome pestilence, whether in the air we breathe, in the water we drink, or in the ground we tread, or to render it comparatively harmless by processes of cleanliness, ventilation, or purification. I lately had occasion to advert to malignant small-pox as one of the terrible forms in which a death-plague defies the power of art. Honour, then, to the man who found the way to stay that plague; who discovered that the seeds of this very malady, by being transplanted to another soil, might be so mitigated, without destroying their identity, as to produce a trivial and harmless degree of the same disease, which should yet prove a protection against the invasion of the malignant forms! This *preventive success* is, indeed, a triumph of our art—perhaps the greatest that it has ever achieved.

Does not, then, the discoverer of vaccination well merit a foremost place of honour? And if we raise in our public forum to the gaze of the admiring multitude statues of the heroes of a hundred battles, whose good deeds and glories, great as they undoubtedly are, have been achieved through the horrible scenes of the battle-field, amid bloodshed and death, suffering and slaughter, lamentation and woe, shall we banish into obscurity the image of our immortal Jenner,(b) whose priceless discovery, whose bloodless victory over disease, has been the means of saving more lives than all that were sacrificed, and of preventing more misery than all that was perpetrated, in the battles of Napoleon, Nelson, and Wellington? To displace the statue of such a benefactor of mankind is an outrage on humanity and a disgrace to an enlightened age; but, alack! it is too much in keeping with the ignorant and senseless caprices of many of a so-called upper class, who pretend to set up the monstrous absurdities of homœopathy and mesmerism, in opposition to the facts and reasonings of science.

(To be continued.)

According to the *Buenos Ayres Standard*, the health of the city was never better. Immigration was again active, there having been 1500 arrivals from the Mediterranean during the previous fortnight.

(b) Allusion is here made to the statue of Dr. Jenner, which had just been erected in Trafalgar-square, close to the College of Physicians, but was afterwards removed to an obscure site in Kensington-gardens.

CLINICAL REMARKS
ON
TUMOURS OF THE EXTERNAL EAR.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

Tumours situated upon or involving the external ear are not of very common occurrence; when they do occur they are the source of considerable annoyance, both on account of their position as well as from the disfigurement they produce.

Amongst the tumours which appear peculiar to the ear must be mentioned that singular form described as hæmatoma; it seems, in some way or other, to be associated with mental disease, for it has not been described except as in connexion with insanity. It is foreign to my purpose to enter into this subject.

Another special form of tumour of the ear, however, has to be described, which comes frequently under the observation of the general Surgeon, and is the result, apparently, of the operation of puncturing the ears for the purpose of earrings. It is of the fibroplastic nature, and grows from the point at which the puncture has been performed. Such a tumour may grow to a tolerably large size, and I purpose to record an example which was about the size of a walnut. I shall quote other cases of sebaceous tumours, whole and fungating; of fibrous tumours, as well as of epithelial and cancerous—such growths appearing on the ear as well as on other parts of the body.

Case 1.—*Sebaceous Tumour, situated on the upper part of the Pinna of the Left Ear.*—William W., 12 years of age, came under my care at Guy's Hospital, on March 18, 1867, for some tumour of the left ear. It had been growing for three years, was quite painless, and caused annoyance only from its size. It was as large as a walnut. The skin over the tumour was quite free and uninvolved. The growth, apparently, could be moved upon the ear. I excised the growth, and it turned out to be purely sebaceous. A good recovery followed. The mass readily turned out of its bed on dividing the integument. No direct connexion with the skin could be made out in this case.

Case 2.—*Fungating Sebaceous Tumour of the Ear, simulating Cancer, in an Old Man.*—Edward R., aged 74, came under my care at Guy's Hospital on January 13, 1864, for a tumour situated in the concha of the right ear. It had existed for eight years, and had grown gradually; but for some months it had been discharging, and had increased in size somewhat rapidly. When coming under observation, an irregular fungating growth was seen, the size of a large nut, projecting from a capsule of skin—to the margins of which it was not connected—situated at the lower part of the concha of the ear. It was discharging a sero-purulent fluid. The growth put on much the appearance of an epithelial cancer, but the history of the case, and the fact that the skin itself was sound, pointed to its being one of the fungating sebaceous tumours. The contents of the cyst were readily turned out with the thumb-nail, and nitrate of silver was applied to the cyst-wall. A good recovery followed. On examining the growth none of the elements of epithelial cancer were to be discovered.

Case 3.—*Fibrous Tumour the size of a large walnut growing from the posterior part of the Pinna of the Ear.*—Robert B., aged 53, came under my care at Guy's Hospital on April 23, 1866, for a tumour situated on the back of his right ear. It had existed for eighteen years, and had grown very slowly. It was firm to the feel, and the skin over it was quite sound. Excision was advised and performed. A good recovery followed. The tumour turned out to be fibrous, and grew from the cartilage.

Case 4.—*Fibroplastic Tumours of both Ears following the operation of Puncture.*—Esther L., 34 years of age, came under my care on April 16, 1866, at Guy's Hospital, for two tumours situated in the lobules of either ear. They had been growing for two years, and had appeared six months after the ears had been punctured for earrings. Both tumours were about the size of nuts. They were excised by means of a V incision, and the edges of the wounds were carefully adjusted. A good recovery ensued.

Case 5.—*Fibroplastic Tumours of the Lobules of the Ears, the result of Puncture.*—Eliza A., 24 years of age, came under my care at Guy's Hospital on December 4, 1865, for tumours situated in the lobules of the ears. They had existed for four years, and had clearly originated directly after the parts had

been punctured for earrings. The tumour on the right side was globular, and nearly one inch in diameter; that on the left was about two-thirds the size. They were both very hard, and appeared to be made up of fibrous tissue. They were both removed with a V incision, and the edges of the wounds carefully adjusted. A good recovery followed, the ear being in no way disfigured by the operation. The tumours were made up of fibroplastic elements.

Case 6.—*Pedunculated Cancerous Growth on lower part of the Pinna.*—James H., aged 50, a healthy man, came under my care at Guy's Hospital on August 11, 1862, for a growth upon his left ear. It had existed for seven months. It appeared as a kind of wart, and had rapidly increased. When I saw him, it was as large as a walnut, and pedunculated. Its surface was ulcerated, and was discharging. It had all the clinical features of the epithelial cancer. There was no enlargement of any of the absorbent glands. A ligature was placed upon its peduncle, and the growth at once fell off; a healthy cicatrix subsequently disappeared.

Case 7.—*Cancerous Tumour growing from the upper part of the Pinna of the Left Ear.*—John H., 70 years of age, came under my care at Guy's Hospital on May 6, 1867, for a tumour, the size of a filbert, situated on the pinna of the left ear. It had been growing for a year and a half, and ulcerated for three months. By a little pressure the contents of the cyst were readily turned out, and proved to be cancerous. A return of the disease took place within a month, when he was admitted into the Hospital, where the growth was excised. A good convalescence followed.

Case 8.—*Epithelial Cancer involving nearly the whole of the Pinna of the Left Ear.*—Commander R., aged 74, came under my care on June 6, 1864, for an extensive cancerous affection of the left ear. The disease had existed for eight years, and had gradually increased till it had involved all the pinna of the ear with the exception of the lobulus. Nothing except excision of the part could be entertained. The operation was performed on June 15, and a good recovery followed. The lobulus was left with the tragus. The disease was a very good example of epithelial cancer. Some years subsequently (October, 1868) he was quite well, no signs of any cancerous disease existing. He could hear as well with the left ear as with the right.

Case 9.—*Congenital Outgrowth from the Anterior Surface of the Tragus.*—James J., 9 weeks old, was brought to me at Guy's Hospital on December 11, 1862, for a congenital outgrowth, the size of a haricot bean, growing from the anterior surface of the tragus of the left ear. It was apparently only made up of skin and cellular tissue; it was very firm. I excised the growth, and the wound healed favourably.

Case 10.—*Laceration of the Lobulus of the Ear—Plastic Operation and Recovery.*—Lucy S., 19 years of age, came under my care at Guy's Hospital on February 27, 1868, for a deformity of the lobule of the left ear. It had existed for many months, and was the result of the complete laceration of the lower part of the lobule, from the forcible tearing out of an earring. A plastic operation was performed, similar to that of harelip, fine sutures being alone used. A good recovery followed, the line of union being scarcely visible.

ORIGINAL COMMUNICATIONS.

CASES OF INTESTINAL OBSTRUCTION.

By C. HANDFIELD JONES, M.B., F.R.S.

Case 1.—T. W., aged 55, admitted May 4, 1858 (1862). He was taken ill May 2, after dinner, having eaten cauliflower; he had pain all over abdomen and vomiting, took medicine, but nothing passed through him. His bowels had been purged for a week before he was attacked, but he had not been laid up. Pulse thready and very weak; skin cold, clammy; tongue moist, coated. Retches up a bilious yellow fluid. A flexible tube was passed up the rectum for about two feet; some mucous fluid and specks of blood came away, but nothing else except flatus. He got shortly after out of bed to go to the close stool, but lapsed into syncope and died in a few minutes, in spite of some brandy that was poured down just before he died. I felt the pulse as distinct almost as it was before his faint, and he resisted me strongly with his arms, which I was keeping still while the brandy was being given.

Post-mortem.—On opening the abdomen, peritonitis was found to have occurred, but not very considerable. The cæcum was so distended as to occupy the greater part of the abdomen; it was also turned over, so that the lowest part was highest in the abdomen, and the posterior surface was anterior. It was of a bluish colour. The mucous membrane of the cæcum was normal, except some traces of inflammation; its cavity contained a very large amount of flatus and fæces. When the cæcum was restored to its proper situation, its contents flowed immediately into the transverse colon, which previously was empty and shrunken. The rest of the intestines were natural. In the thorax there was nothing remarkable, except that the heart was rather enlarged and flabby; its fibres were not at all fattily degenerated when examined under microscope. Lungs to some extent emphysematous. Arcus senilis marked.

The previous diarrhœa in this case acted as a predisposing cause to more serious derangement of the bowels. The nerve-muscular functions becoming enfeebled generally, local paralysis seems to have ensued in the part whose muscular coats are thinnest, and which is therefore most liable to distension. The descending cæcum and ascending colon gradually turned upwards and became sharply flexed at their junction with the transverse colon, so as to form an actual occlusion of the canal by the approximation of its opposite sides. In instances of this kind it is well seen how increased distension of the upper portion of bowel augments the sharpness of the bend, and consequent obliteration of the passage at the seat of the flexure. There can be no doubt, I think, of the correctness of Abercrombie's opinion, that in cases such as these the paralytic dilatation is the primary and essential mischief, and that spasmodic contraction of the bowel beyond has nothing to do with its production.

The heart's action was speedily paralysed by the morbid impressions conveyed by the abdominal nerves, and death ensued at a much earlier period than might have been expected, or than would have passed had the sufferer's system been better organised. As there was no fatty degeneration of the heart, its paralysis must be referred to a peculiarly impressible state of the nervous centres, to some infirm or vulnerable condition of the ganglion-cells, which made them less resistant to perturbing influences. That such states exist is a well-known fact. An attack of gastralgia in some persons will reduce the pulse to a mere flutter. Had opium been freely given at the outset to this patient, with diffusible stimulants, the result might have been different. It might have rendered the heart less sensitive to the morbid impressions, and restored tone and vigour to the intestinal nerves.

Case 2.—Miss J., aged 10, a very healthy girl, was quite well on February 19, when she was suddenly seized with severe pain in abdomen, with call to stool, and vomiting took place. The bowels did not act, although castor oil was given; and before twenty-four hours had passed she was in a state of such extreme collapse that, when Dr. Frampton saw her, she was pulseless and appeared dead. Brandy, however, freely administered, revived her. He gave calomel and a strong aperient once, and large warm water enemata, but nothing has come away up to the present date (February 24). The abdomen is somewhat distended, dull on the right side at its lower two-thirds, resonant in middle, and rather dull in left flank. It is tender generally, but most over the right lower part; it is not tense. No tumour can be felt, not even in the region of the cæcum. Pulse 115, weak; tongue red and coated. Much stercoraceous vomiting. Opii gr. $\frac{1}{3}$, 4tis horis.

March 20.—On the 9th day after I saw her (March 5) the bowels acted for the first time; a little was passed in the warm bath, and a good deal more after. Since then the bowels have been confined for two or three days, and then have acted again. Two stools were shown me to-day; they were pretty copious, semi-solid (or rather more), and very pale—partly, I suppose, from the amount of milk taken. She has eaten some meat occasionally; did so yesterday and to-day. She is sadly emaciated, and evidently suffers much, especially when "the eggs come in her belly," as she says. By the eggs she means portions of distended bowel, which rise and become prominent on the surface, leaving between them transverse furrows. During my visit these became very apparent—one ran across the upper abdomen, and another about the middle; they were resonant. Before these prominences appeared the abdomen was smooth and moderately full, but not tense; dull in all the left half, especially at the lower part. Pulse very small and weak,

over 120; temperature, 36·8 (98·2). She derives great relief from the hot baths, and asks and waits anxiously to have them repeated.

27th.—Died yesterday, having suffered extremely with pain in abdomen for about twenty-four hours before death.

Autopsy.—Abdomen greatly distended by coils of small intestine prodigiously swollen; the lower and most distended of these were of a deep blackish-red from congestion: their tissue was much softened at one spot, which had given way, and allowed faecal matter to escape. These especially diseased coils belonged to the ileum; the upper part of the alimentary canal, and the large intestine, and the termination of the ileum were normal. The obstruction seemed to have been caused by the twisting of the mesentery upon itself; there was no intussusception, nor any constricting band or internal stricture. In one coil, however, or loop of the congested intestine, the two sides adjacent to each other were closely adherent in a way which must have interfered with the normal peristaltic movement. There was no fluid in the peritoneal cavity.

The existence of intussusception was considered probable in this instance, though the absence of tumour and of bloody dejecta constituted an objection to this view. The sudden way in which the symptoms set in, and the rapidity with which prostration came on, pointed decidedly to the small intestine as the seat of mischief. The warm bath and opium gave very much relief, and in all probability prolonged life considerably. The cessation of the obstruction and restoration of a tolerably free passage of the intestinal contents was a remarkable change, such as one would expect to be followed by complete recovery. Abercrombie, however, warns us that we must not hastily pronounce on a favourable issue because fæculent evacuations have occurred; for, in spite of these, the disease may be going on to a fatal termination. The softened and weakened state of the intestinal parietes seems to have been produced by long-continued passive hyperæmia and distension.

Case 3.—J. P., aged 20, shop porter, admitted July 19, 1867. The first ailment he had was pain in left flank, or hypochondrium, which came on six weeks ago. It lasted four weeks, then ceased for seven days, then returned all over the abdomen, and has now existed five days. His bowels have not acted during this time, and only scantily just before; usually they are regular. Since the bowels were confined he has had pain, and there is now notable distension. He thinks he strained himself while working at a sausage-machine, turning a wheel, five months ago. No sleep at night, or very little. His mother states that he has vomited some faecal matter to-day, before he was admitted. There is marked tenderness in both flanks, especially the right, including the iliac fossa; this flank is very dull. Liver-dulness of normal extent. No abdominal movement in respiration; the upper ribs play very evidently. Pulse 125, of good force and volume; respiration 26 in minute. Can lie with legs extended. No hernia; tongue red and coated; feels sick now and then; has vomited some pills he has taken, but not beef-tea. Face rather flushed; feels very hot; temperature 99·5°. Urine appeared natural yesterday; before that it was thick; quantity small. Tinct. opii mxl. + aq. ℥iss. stat. opii gr. j., 2dis horis.

July 20.—Pulse 100; tongue coated, rough. Has vomited some acid green matter, but not the food which has been given to him—viz., beef-tea Oj., and some bread. Urine in fair quantity, and of a very deep red; pupils not contracted.

21st.—Has had a good free evacuation from the bowels; very offensive and dark. Feels much better; urine dark-red, contains some bile. Abdomen full; resonant except at right flank, but even there the dulness is less extensive; tenderness less. Pulse 88; temperature 98°; no vomiting; appetite returning; pupils natural. Pt. c. pil.

24th.—Doing quite well. No pain or tenderness in abdomen; it is rather full, but the dulness in right flank is much less. Appetite improving. Bowels open once or twice every day; stools light yellow. Omit pills; fish, pudding. Is up and about.

31st.—Gone out.

In this case the symptoms never attained a great severity, though the occurrence of faecal vomiting shows that the situation was serious enough. The cause of the obstruction was not ascertained, but, from the gradual way in which the symptoms came on, the occurrence of pain in the left hypochondrium as the first and nearly persistent symptom, and the marked dulness in the situation of the ascending colon, it seems probable that the descending colon was the seat of mischief. There may have been some narrowing of the gut at this part, and hardened fæces may have collected above it. Possibly without aid recovery might have occurred, but I can scarcely doubt that the opium contributed materially to the favourable result. In fact, it was given so freely, that had it not acted for good it must certainly have proved injurious. Ten or twelve grains of opium per diem are no placebo.

(To be continued.)

ON PARTIAL CONVULSIVE SEIZURES, WITH PLUGGING OF CEREBRAL VEINS.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P.,

Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

Epileptic or epileptiform seizures not very rarely occur with disease of the ear—that is, with disease of the apparatus of hearing. It is impossible, without post-mortem examinations, to know that there is a relation of cause and effect; but in cases of epilepsy or epileptiform seizures we cannot afford to overlook any realistic condition. Disease of the ear leads to cerebral abscess through the veins—there is a local pyæmia; and my speculation as to the connexion betwixt ear disease and epileptiform seizures is, that by blocking of veins, also, there results a minor pathological change: one permitting instability of grey matter—a condition allowing occasional excessive discharge on muscles (convulsion).

The following case illustrates this supposed connexion. There was no disease of the ear, but there was an equivalent state of things: there was purulent matter in the right lateral sinus, and a vein was traced from this sinus to the part of the hemisphere *most* diseased. The changes, however, as will be seen, were far too extreme and too widespread to enable us to give the case as more than a hint towards settling the question as to the connexion of ear disease with epileptiform seizures. Moreover, the course was acute. The case is of further interest as showing a sequence of spasm in one variety or degree of convulsion.

Phosphorus-Necrosis of the Bones of the Face and Skull—Pyæmia of Brain and Lungs.

December 7, 5.30 p.m.—I saw a patient, 41 years of age, who had been admitted under the care of Mr. Hutchinson for phosphorus-necrosis of the left upper jaw, and who had very frequent attacks of spasm, affecting chiefly the left side of the face. I saw six attacks in about half an hour. The description of what was observed in the third (apparently the severest) is as follows:—There was drawing of the mouth to the left almost horizontally; the spasm gradually spread over the left side of the face, and even to both sides of the forehead. After the face was well in action, both eyes turned far to the left, and the head turned a little, but very decidedly, to the same side. Later still both eyelids blinked (shutting and opening), but the left much the more—*i.e.*, they closed more completely, but whether more frequently was not noted. The mouth was closed throughout the attack, and respiratory efforts—for a time, at least—were suspended. At one time, early in the fit, a slight snapping sound was heard, believed to indicate occasional action of the masseter and temporal muscles. When towards the end of the fit, the arm was felt (by taking gentle hold of the upper arm and forearm), there was the very faintest movement of the limb—apparently of the limb as a whole.

After this and after subsequent attacks there was no affection of speech proper—*i.e.*, of speech in the sense of "propositionising"—nor was there any considerable defect of speech in the sense of talking; there was only the slightest muffling of articulation. This muffling no doubt depended on paralysis of the face, for the face was paralysed on the left in the intervals of the fits. It was much drawn to the right, and when he spoke the cheek bagged on the left. He could not close the left eye nearly so firmly as the right, and when the lids of the right eye were separated, in order to use the ophthalmoscope, there was very great resistance, but none, or scarcely any, on the left side. In the attacks the patient did not speak, for his mouth was closed, and he was no doubt unconscious, although we fancied that in one attack he nodded to his wife, who called him by name.

The above does not pretend to be a full account of what took place in the seizure. The observation was begun after the very beginning of the attack. It is impossible to observe all the details of the very complex march of a fit affecting even so small a part as one side of the face. In another attack, whilst I observed the left arm (which in this attack did not suffer at all) and the face, Mr. Haydon kept one of his hands on the chest and the other on the abdomen. He reported that at first there was action of the abdomen (diaphragm)

at shorter intervals; the chest stopped moving two inspirations before the abdomen. This—the stoppage of both—we may suppose was the climax; then (to continue Mr. Haydon's observations) there were little jerks, a sigh, and lastly deep inspirations, in which both chest and abdomen shared.

In this attack I observed, further, that the two eyes were well turned to the left before the eyelids were closed—the eyelids were indeed at that time very widely open—and that later the eyelids rapidly opened and closed, the left eye closing very much, the right eye not closing completely or strongly, at all events. It was not noted whether the left eye closed oftener than the right.

In still another attack the fit was noticed from the very beginning. It was then seen that there was, at the *very* first, confused movement (so to speak) of the mouth, as if the orbicularis oris *all round* was in action—not the left half of this muscle only. There were slight, perhaps doubtful, movements of the lower jaw up and down. Distinctly after the "mouthing," the horizontal drawing of the face to the left began, and the face part of the fit occurred as before.

In one attack the left arm was raised from the body—rather, it was observed raised—and there was seen the very slightest movements of the fingers *backwards*.

The spasm was clonic. It cannot be affirmed that there was no transient tonic spasm before the clonic spasm began; probably there was. The movements were supposed to be at more rapid intervals the later the fit, so far as the horizontal drawing was concerned. There is, however, very great difficulty in observing this point; the wider the movement the more obvious it is.

9.30. p.m.—I saw him again with the House-Surgeon, Mr. R. W. Parker. I saw one fit, and in it the fingers of the left hand were slightly moved; the hand itself was thrown back in slight jerks. The face as before. He had, it was said, not had one fit since I left him, but little had been seen of him. Faradisation was tried, but it could not be tried fairly, as he cried out, and there was no justification for disturbing him. The left side did act, at least equally, if not slightly more than the right. The cheek near the angle of the mouth was galvanised. He had one very trifling fit; there was only a little "mouthing," preceded by a deliberate up-and-down movement of the lower jaw. He died on the 9th.

Autopsy.—On cutting the dura mater on the left side there was a spirt of dirty thin pus, and when this membrane was cut round in the usual way so much of the right hemisphere as was then exposed was seen to be covered with pus, which lay above the arachnoid. On gently raising the brain a vein was seen passing from the right lateral sinus to a patch to be presently spoken of over the lower wall of the Sylvian fissure. The vein was like a white, tough cord. When cut into it exuded, not blood, but a thin, creamy fluid.

The pia mater and arachnoid were thickened and infiltrated with lymph for about two square inches (but the limits were very ill-defined) over the upper and outer parts of the parietal and anterior lobes. On removing the brain no abnormality was seen on the under surface of the posterior lobes, and none on the part of the brain which lay over the lateral sinus. There was a little pus over the optic nerves, also under the right anterior lobe and over the fissure betwixt it and the left lobe; but the membranes were not thickened. The pus lay above the arachnoid. The chief disease of the brain-substance itself was at the patch above spoken of. Here the membranes were thickened and adherent to the convolutions; not firmly adherent, but the convolutions were so soft that they tore when the membranes were removed. It was supposed at first that the large quantity of pus was the result of rupture of a cerebral abscess; but, although the convolutions of the lower wall of the Sylvian fissure (about opposite the lower end of the fissure of Rolando)—that is, the convolutions subjacent to the patch—were softened into a dirty mixture of brain and pus, no abscess was discovered—that is, no walled abscess—rupture of which could have caused a large "effusion of pus." At this point the overlying veins were turned into thick, dark cords—cylinders of coagulated blood—and one vein, with thin, creamy contents, passed, as aforesaid, to the right lateral sinus. The extreme damage was very limited. There was purulent softening of about a cubic inch of the lower boundary of the Sylvian fissure, and very little extension deeply in the fissure. In the convolutions near to the part most affected were, however, many red specks (red softening). The hinder part of the island of Reil was affected; it was affected as the convolution under the patch, for about the size of two peas, but doubtfully by direct continuity. The convolutions of the anterior, posterior, and temporal lobes all round the principal lesion were slightly softened, and of a slightly greenish hue, such as is seen in decomposing brain. The corpus striatum and the optic thalamus, crura cerebri, pons, and cerebellum were normal.

The convolutions of the left—the comparatively sound hemisphere—were flattened and pressed together. The arachnoid surface was greasy-looking, and through it was seen a little—but very little—dirty serous fluid in the angles of the convolutions. The substance of this hemisphere was normal.

The superior longitudinal sinus contained pus mixed with blood, and a soft yellowish-looking clot. In the right lateral sinus were chiefly flakes of purulent matter, and a soft yellowish clot. The right cavernous sinus seemed to contain nothing but pus. The left cavernous sinus was normal. Mr. Parker removed the left (*sic*) superior maxillary bone, and saw that the bone was extensively necrosed. The disease had extended to the body of the sphenoid. The dura mater over it was raised, and on removing it the bone was seen to be dark and slightly rough. All the organs in the chest and belly were normal, except the lungs and spleen. The lungs contained numerous infarctions. They were nearly all in the "apoplectic" stage, and one or two were (on section) large, raised, and quite like those more commonly seen in cases of heart disease. In the centre of two or three of the smaller ones only was there any purulent matter, and this was but slight in amount. The spleen was large and soft.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

GUY'S HOSPITAL.

LARGE PLEURITIC EFFUSION TREATED WITH THIRST.

(Under the care of Dr. MOXON.)

[Reported by Mr. EWART.]

M. W., AGED 24, was admitted into Guy's Hospital on June 19. She is a domestic servant, and has always had good health. About three years ago she had some fever; does not know what. Four months ago fancied she caught cold; had cough, etc., but was not ill enough to lay up. For last three months has had more or less pain in chest, with some difficulty of breathing. About a fortnight ago she felt so weak, and her difficulty in breathing had so much increased, that she could not do her work, and sent for Medical advice. Latterly had been spitting up a good deal of phlegm, and has been getting thin; also sweats at night. Family history good.

On admission: The patient is a dark, delicate-looking girl, fairly nourished. Has some cough, not very troublesome, and raises a moderate quantity of phlegm, no blood. Has pain at lower part of sternum when she breathes, and also has a "difficulty" in breathing. The right side is quite dull up to the neck about the clavicle, where there is a hollow, remote resonance. The dulness passes some distance to the left of the median line. Apex of heart beats half an inch ontside left nipple. Right hypochondrium looks full. No feverishness. On auscultation of right side no breathing-sound is heard except at apex and interscapular region, and there it sounds distant and hollow; the voice-sound is raised in pitch and lessened in force. Breathing on left side loud, supplementary.

The patient was directed to limit the quantity of her drink in the twenty-four hours to ten ounces, and a mixture containing pot. iod. gr. v., amm. chlorid. gr. v., was given thrice daily, and elect. potass. bitart. in the morning. She adhered very firmly to the abstinence from fluid, and on the 28th the report says—"There can be no doubt that the dulness has decreased, there being now resonance down to the second rib, and vesicular murmur in breathing can be heard as low down as this. July 4: Resonance is good down to third intercostal space; she feels quite comfortable, with the exception of being very thirsty. After this the decrease of the fluid was even more rapid, so that, by the middle of the third week of treatment, the signs of the presence of fluid were gone so far that only slight and doubtful difference in the percussion-note posteriorly at the base remained. No change occurred in this during the remainder of her stay; she left the Hospital feeling well and active, and having regained her flesh and strength, and wishing to return to her

work. During the treatment the quantity of urine was less than normal; its quality was natural.

The rapidity with which this case recovered from so large an effusion drew the attention of all who witnessed it. We occasionally see large effusions of liquid in the peritoneal cavity disappear very rapidly when small doses of mercury and digitalis are given, but then the flow of urine always becomes very free. In this case the urine was scanty throughout, and we must look to some other cause for its disappearance, although diuretics were given; for the diuretics did not act. Though not certain, yet, as a probability, the thirstiness maintained in the vessels may be regarded as the cause of cure. It commends itself easily to one's mind that empty vessels should absorb better than full ones; and experiments show that fluids are absorbed from the stomach more quickly during a fast. Some of the experiments of Kussmaul and Tenner collaterally bear on this question. These experimenters found that they could not carry out their wishes on the medulla oblongata of dogs, because the poor animals bled to death before the cutting operations were complete. In this dilemma they hit on the plan of keeping the miserable things without water for several days before vivisection. By this method they found that the blood grew thick and tarry enough to prevent its escaping from the divided vessels until physiology had exacted her demands in full. Thirst empties the bloodvessels and diminishes the blood-pressure within them, so favouring the entry of fluid from without.

If the case had been treated by tapping there is little doubt it would have been cured in time, but Dr. Moxon thought the effort to absorb the fluid should first be made, having a belief that the thrusting of weapons into the principal cavities of the body is not to be regarded as a safe common rule of practice in cases where diet and medicine suffice to cure. Simple pleuritic effusion, practically, always gets well.

ST. THOMAS'S HOSPITAL.

POLYPUS UTERI REMOVED BY ÉCRASEUR.

(Under the care of Dr. BARNES.)

In further illustration of the series of uterine polypi which we are now publishing in our Hospital Reports, Mr. Churchill has forwarded to us the notes of a case recently under his care, operated on by Dr. Barnes at St. Thomas's Hospital.

R. E., aged 50, a widow, was suffering from palpitation of the heart and extreme spanæmia, dependent upon uterine hæmorrhage, more or less constant during the past two years. As local applications and constitutional treatment failed to arrest the hæmorrhage, Mr. Churchill recommended her to apply for admission to St. Thomas's Hospital, under the care of Dr. Barnes. The polypus was attached to the cervix uteri, and it projected into the vagina through the os.

The catamenial periods were regular up to two years ago; since that time she has had almost constant metrorrhagia with intermissions of a few days only. She has passed large clots of blood, and a thin watery discharge, which was not offensive. During the past six months she has suffered considerably from pains in the back, giddiness, and anorexia. She is of a stout habit of body, but the soft parts are lax, flabby, and very blood-less-looking. She has had some general œdema. There is a faint systolic murmur at the base of the heart, probably anæmic in character.

Dr. Barnes removed the polypus, passing the noose of a wire écraseur around the neck of the tumour. The surface of the tumour was smooth; it was about the size of a small orange, with a distinct but thick pedicle. The structure of the growth was made up of interlacing fibres, and of very firm consistence.

There was no recurrence of the metrorrhagia. She was dismissed cured in five weeks, having regained her strength, and the cardiac symptoms having almost completely subsided. We are indebted to Mr. Pike, the Clinical Clerk, for the notes of this case, who informs us that the above is one of several polypus cases operated upon by Dr. Barnes recently.

BIRMINGHAM GENERAL HOSPITAL.

ANEURISM AT THE ROOT OF THE AORTA LYING IN THE SEPTUM VENTRICULORUM, WITH RUPTURE OF ONE OF THE AORTIC VALVES.

(Under the care of Dr. RUSSELL.)

The special interest of the following case lies in the conjunction of an aneurismal pouch behind the valves of the aorta with laceration of one of the aortic valves, and in the influence which the presence of the aneurism appears to have exerted in producing the laceration of the valve, and also in modifying very remarkably the symptoms to which the laceration gave rise.

The aneurism itself presented one among the many varieties belonging to that disease when it affects the heart. There are three cases of cardiac aneurism recorded in the *Pathological Transactions*, which present considerable resemblance to the present one, in respect of the seat of the aneurismal pouch. In the volume for 1851-52 is a case by Dr. Peacock, in which a small aneurism, associated with malformation (probably congenital) of the aortic valves, was referred to an endocarditis fourteen weeks before death; one by Dr. Lichtenberg (vol. xvi.); one by Dr. Moxon vol. xvii.) In each of these cases, owing to a difference of relation, the aneurism made a prominence into the tricuspid orifice in the first two; into the left auricle in the last. In my case no prominence into any of the cavities was visible after death. In vol. xvii. of the same *Transactions* is a case by Dr. Weber of an aneurismal dilatation of all the sinuses of Valsalva, to which was added a perforation of one cusp of the aortic valves by atheromatous ulceration; but the nature and history of the case were quite different from those of my own.

Cases of rupture of the valves of the heart (generally of the aortics) whilst in a state of health, through external violence, are known in all pathological records. In the *Transactions* from which I have already quoted there are many interesting illustrations of this accident, and they all tend to confirm the remark that fixation of the chest, in the course of a violent bodily effort, is the most important element in the mechanism through which the injury is inflicted. A man-cook stretching over some high coppers, and, whilst doing so, making an extraordinary effort to seize a particular vessel (Dr. B. W. Foster); lifting a heavy load of bricks (Dr. Dickenson); pulling at a sugar hogshead, the hand slipping, and striking his side (Dr. Peacock); working a sledge-hammer; trying in a passion to open a door; running with a horse (Dr. Quain); and again, in this journal, pulling at a capstan bar (Dr. Allbutt)—all operated as causes of a rupture of a valve, and, in all the cases but one, of an aortic valve. Occasionally the ascending aorta has yielded; but in such instances superficial violence, acting indirectly, seems to have been a more general cause than simple effort. Such cases, observes Dr. Wilks, illustrate "a point of interest, in the fact of deep-seated parts being often the subject of injury when the body has been submitted to superficial violence. The explanation is to be found often in simple mechanical causes, whereby the most fixed parts become separated from the most movable, and thus the weakest structure soonest suffers." When, however, the aorta is in a diseased condition, cases of rupture, even without any obvious violence, are more common; and it is needless to add that, under such circumstances, aneurisms may be formed.

In the following case the violence in which the disease originated was conformed to the usual type, but the order of symptoms and the mode of production were different from those usually observed in cases of valvular rupture. The case did not commence with the sudden and severe symptoms of cardiac distress which are well known to attend the class of accidents to which I am now alluding; but, on the contrary, though the symptoms soon became sufficiently severe, a marked gradation was observable in their increase—a gradation which was distinctly retained in the patient's memory. There can, indeed, be no doubt that a leakage was established through the aortic valves, prior to the occurrence of the rupture, in consequence of the formation of the aneurism and of traction exerted upon two of the segments through their attachment to its wall. In this particular the case resembles those which are described by Dr. Allbutt in a paper on "Overstrain of the Heart" (*Medical Times and Gazette*, May 20, 1871), in which "the excessive effort does not seem actually to drive a valve before it, but so strains it that some leakage occurs, and this leakage slowly enlarges the chink until serious regurgitation becomes possible." The mechanism, however, was different. From the relation which the ruptured segment bore to the sac of the aneurism, it is most probable that the rupture of that segment was a consequence of the formation of the aneurism, resulting directly from the dragging applied to it at each dilatation of the sac. It is remarkable that though inquiries were made from the patient, with special reference to a suspected rupture of an aortic valve, the symptoms produced by the rupture had not assumed prominence in the memory of the patient over those which preceded its occurrence, though they were observed and subsequently described by the sister.

Case.—Post-mortem Examination.—The heart weighed 22 oz.; the ventricles were proportionately hypertrophied and dilated; the tissue was firm. A pouch capable of containing a fair-sized walnut sprang from the left side of the aorta just at its origin, and, pointing downwards between that vessel and the pulmonary artery, buried itself in the septum of the ventricles. It was lined with an irregular, half-formed membrane, which left spaces of cardiac tissue uncovered. The orifice of the pouch was of considerable width, and opened into the aorta just behind the sigmoid valves, involving the right and left coronary segments in a somewhat singular manner. The left coronary segment was carried entirely into the pouch, but the right coronary segment (the opposite extremity of which was on the outside of the pouch) was completely torn down, the rent extending even into the cardiac tissue. About half the curtain hung loose; the remaining portion seemed to have turned upon itself and become adherent, forming a "hem." The torn segment was not at all thickened, nor was the inter-coronary segment; the left segment, however, was rather more rigid than usual. The inner coat of the aorta was opaque above the valves. There was a white opaque patch below the opening of the innominata, and some spots of atheroma at the lowest part of the thoracic and in the abdominal aorta. The mouths of the coronary arteries were free. The right lung was completely compressed by fluid effusion, and its surface was covered with recent lymph. A small mass of rather old pulmonary apoplexy existed in the base of the right lung, and another small mass, of recent date, at the base of the left. A considerable branch of the pulmonary artery, with its sub-divisions leading to the latter, were occluded by fibrin, but only a fine twig lying in the heart of the former. With this exception the pulmonary arteries were free throughout their course. The lung tissue was healthy, and free from œdema; the compressed lung could be inflated. The tubes contained some mucus. The kidneys were healthy.

The man's age was 34. He had been a soldier, and a heavy drinker, but had left the army for two years, and had been employed as an engine-fitter. His work was very laborious, often involving the raising of great weights. Both himself and his mother, independently of each other, agreed in referring the beginning of his complaints to a period nine or ten weeks before his admission into the Hospital. He himself explained his illness by his having "caught a cold and cough" through working in steam; but it appeared that he had been employed in unusually hard work—in lifting a large fly-wheel by means of levers and pulleys. It was, however, not until a week afterwards that he began to have "a tearing cough," of so much violence as nearly to throw him down; with it he expectorated blood "in flakes," unmixed with phlegm, "and coarsely bubbled"; he continued to have hæmoptysis for a month. A fortnight afterwards his breath became short, but he did not leave work; indeed, he went to another similar job next week, though having often to stop in his work through shortness of breath. He was not aware of the occurrence of any sudden change in his condition; but, after his death, his sister told our Pathologist (Mr. Rickards) that one day, about three weeks before he came into the Hospital, he was attacked with pain in his chest, difficulty of breathing, faintness, and sickness. He was obliged to leave work and go home, promising to return next morning, but was unable to fulfil his promise.

I had only the opportunity of making a rather hasty physical examination of his chest at his admission, before the fatal attack. I can therefore only state that the ordinary signs of aortic regurgitation were present in their most characteristic form. On the evening of the following day he was seized with a prolonged attack of extreme dyspnœa of a very threatening character, accompanied by blueness of the face. Next morning the dyspnœa had subsided, but effusion was discovered in the right chest. The chest symptoms increased in severity; he expectorated large quantities of semi-transparent mucus, copiously mixed with blood, floating in a dirty blood-coloured fluid, on one day to the amount of two pints in twenty-four hours, and he sank in flesh rapidly. His urine was deficient in chlorides, but free from albumen. The temperature continued normal for the first two days, then steadily rose, and in four days registered in the evening 103·4°; thence it fell to an evening temperature of 100° for two days, after which it continued normal till death on the tenth day. Expectoration ceased suddenly and entirely two days before death, with increase of effusion.

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Medical Times and Gazette.

SATURDAY, JANUARY 6, 1872.

1872.

Amid the congratulations which usher in the New Year, perhaps none are more sincere than those which are exchanged by persons who are mutually of use to each other, and whose connexion of reciprocal obligation waxes stronger as time rolls on. We are under the pleasing belief that a connexion of this kind exists between the readers of, and occasional contributors to, the *Medical Times and Gazette* and its editorial staff. We, on our side, gladly acknowledge our great obligations to the Profession of Medicine at large, without whose support our journal could not have been now entering the forty-second year of its existence, and especially to those members of it who, amid the hurry and excitement of their daily Professional work, have snatched valuable hours to record in our pages the results—often of priceless worth—of their thought and observation. On the other hand, we hope that our readers derive some benefit from the weekly fare we provide for them; and we know from ample experience that in not a few quarters our labours are rewarded by generous appreciation and acknowledgment. Thus mutually obliged, we venture to offer both readers and contributors our congratulations on the commencement of another year, and to assure them that no effort shall be wanting on our part to make the *Medical Times and Gazette* of 1872 the worthy representative of its long line of predecessors. That we have taken the means to secure to them a constant succession of Medical literature from the pens of the most active and accomplished cultivators of the art and science of Medicine in the metropolis and the provinces, our published list of promised contributors for 1872 will prove. That list contains the names, not only of the young and aspiring workers of the Profession, but those of many of the men who have made British Medicine what it is, and who now, in the zenith of Professional success, are garnering the fruits of vast experience. For ourselves, we can only say that it is our fixed determination to pursue that path of independence, fairness, and loyalty to the interests of the Profession, both scientific and social, which has never hitherto been deviated from by the management of the *Medical Times and Gazette*. It is our boast that we are the automaton of no Association—the echo of no coterie. It is our wish to recognise merit wherever it exists, to open our pages to all qualified Medical Practitioners who have anything to say worth the hearing, and to exclude from them everything instigated by personal or private bias.

Steering by this chart, we confidently launch our bark for another trip, relying upon the breeze of Professional favour and the full tide of Professional support.

FAMILY SECRETS.

Some young Practitioners are apt to flatter themselves that they are become pretty firmly established in the confidence of their patients, and that they have secured the substratum of a good and firm connexion, because their patients do not scruple to consult them about the most delicate family secrets. As is but too well known to anyone who has some slight experience of society, there is a cupboard in every house which is kept from the eyes of the world as scrupulously as the famous closet of Bluebeard. Female frailty, drink and idleness, pecuniary embarrassment, and peculation or bill transactions, are the hidden diseases of society, and it is not because a man may be a peer, a prelate, or a judge that he may not have some scapegraces amongst his nearest relatives, whose misconduct may drain his pocket in the effort to keep things quiet, or, maybe, put him perpetually in fear of some damaging disclosures. So the young Practitioner who gets on tolerably well will some day find himself closeted with some personage amongst his patients, revealing to him some hidden ulcer of misfortune or depravity, and seeking his counsel, or—even more probably—demanding his co-operation, in order to buy off a troublesome hanger-on, to send some scapegrace to America, to be the channel of anonymous benefactions to some discarded grisette, or of the weekly pension of a nurse-child. Our inexperienced friend is flattered by these confidences, which are sure to be buttered with the most adroit compliments on his good sense and kindness and discretion, and with the remark that there are very few people to whom such terrible secrets, involving the honour and happiness of so many and high families, could be confided. As to his Professional skill, that, he is told, is of the highest order, and our friend is bid rely on the support and confidence of an influential family circle, who will soon push his name and fame into deserved prominence.

Now, it may be strange, but our young Practitioner will find it to be true, that when the occasion is over—when the secret mystery is somehow hushed up and put out of sight—he may find himself suddenly *cut* by the very people who had laid such stress beforehand on his judgment, his humanity, his discretion, and his skill.

We could give a dozen histories to the point. One young Practitioner had received the greatest civilities during his studentship from an old solicitor, a friend of his father's, who became one of his first and most liberal patients. Everything went on smoothly, till one day the solicitor, who had been for some time dyspeptic and ailing, sent for the young Surgeon, took him into his inmost *sanctum*, and then, bursting into an agony of grief, told him how that he was a ruined and disgraced man; how his wife stood on the brink of the workhouse, and himself of the Old Bailey; how he had squandered his own resources, and meddled with the money of his clients; and what a thin partition lay between his former self—rich, honoured, and trusted—and his future self—beggared, disgraced, and shunned. Our young friend was quite equal to the occasion; he knew that the solicitor had been out of health and spirits, and saw in this confession but the first outburst of melancholy madness. So he exerted himself prodigiously to induce the solicitor's wife to take him away into the country, to a place where he would be under good Medical advice, good diet, air, and exercise, and in the course of some weeks the patient recovered his health and spirits. We say the Surgeon was obliged to exert himself prodigiously, because he had the ordinary battle to fight which every Practitioner must fight, who desires to pound into the heads of a mad patient's friends that low spirits, delusions, and self-accusations are not things to be argued or preached away, but that they come from bodily illness, and must be dealt with as if they were stomach-ache instead of mind-ache. The reward he got was a rather grudging mode of paying his very moderate account, and the fact that he never was invited to dinner, nor employed Professionally afterwards. In fact, he was *cut*, and never saw the solicitor till, some years afterwards, he was called in by some of the friends to assist at the post-mortem examination; for the patient died suddenly, in the night, of angina pectoris. In this case, the patient shrunk from meeting the man to whom he had revealed his secret mental weakness.

The same train of events is sure to follow when a Practitioner finds out that the highly religious wife of one of his most substantial patients has no small devotion to the brandy-bottle; or when a teacher of religion and morality is scorched by the intensity of one of the passions which he is paid to keep in subjection in other people. The young Practitioner is apt to find such treatment discouraging; he finds out that people are more selfish and ungrateful than he thought, and discovers that the zeal of a friend, added to the skill of the Medical adviser, do not always enable him to keep his ground. However, he need not despair; let him go on and do his duty, and accept the consequences cheerfully—time will bring some compensation.

But there is another kind of family secret, of which the inexperienced Practitioner should take heed in time. In the cases we have already cited, he is only asked to do ordinary Professional work, and such services as one confidential friend may render to another, without any loss of self-respect or Professional dignity. But unluckily there are many cases in which the Practitioner, if young and inexperienced, may be cajoled—or, if poor and mercenary, may be bribed—into doing things which involve the loss of both. There is no Practitioner who is not at times asked, begged, nay, implored to save the honour of a family—by procuring abortion in a single woman. It is becoming, unhappily, frequent now for married women to ask some means of limiting their families. In cases of doubtful sanity, the Practitioner may be asked to witness a signature to a will, or to yield to a friendly bias in giving evidence in favour of the mental soundness and testamentary capacity of a dying man. When a respectable person commits a crime, of course the Medical Practitioner is asked for evidence of the "mania" which shall be a ground of irresponsibility—no matter whether it be klepto-, or pyro-, or dipso-, or phoneuo-, or mœchæo-, or pseudomartyrio-, or epithumeo-mania—for we suppose that each of the ten commandments has a special mania to match, which causes it to be broken without responsibility. Now, in any one of these cases, it may add force to the natural repugnance with which every honourable man would receive such propositions, to know that none of these things *pay*. No connexion worth having was ever based upon deeds which make a man despised by the very people who use him as their tool; and we may add that many a time, where a man has been beguiled into doing work that smacks of the dirty and unprofessional, his employers snap their fingers at him when he asks for payment. They know that he dares not sue them in public. Let us assure the young Practitioner that the more strictly he keeps to the duty of healing the sick, and the less he knows of "family secrets," the better it will be for him.

NATURE-WORSHIP.

It is a singular and lamentable fact, that we find from time to time in the writings of scientific men, deservedly eminent in their respective circles, instances of the most dismal want of appreciation of the true scope of the Medical art and science. We have a remarkable instance before us, in an article lately publi n the periodical called *Nature*, which is evidently conducted by men of the highest scientific standing, and is the favourite method of intercommunication between such men as Tyndall, Huxley, Car ter, and others whose names might be supposed to give some sort of sanction to the notions of which we complain.

It is an old sarcasm against certain Physicians of the

"expectant" school, that their practice is merely to look on at their patient struggling with his malady, and cautiously to abstain from giving him any assistance. Such men, instead of practising the healing art, were said (we think by Berdeu) simply to indulge in a "*meditation sur la mort.*" It is said, too, of some few amongst ourselves, that their desire to study the natural history of disease is so strong that they are loth to do anything that shall interfere with the chance of making a post-mortem examination. But we certainly never thought we should have met with the semblance of approbation of such a system in a modern scientific journal. But in the pages of *Nature* (a) we meet with the following passage, which we shall be glad to learn that we have misunderstood. In an article on the "Brown Institution" (the new Pathological Hospital and Museum for animals, placed under the care of Dr. Burdon-Sanderson) we read as follows:—

"The pathologist at the bedside is not in the position of an experimenter, but only in that of a student, who stands by at a greater or less distance, while another, over whom he has no control, performs experiments in his presence, without deigning to explain to him their nature or purpose. The true Physician fears to meddle with the processes of which he is the attentive and anxious spectator. Although the more ignorant members of the Medical craft—the so-called 'practical' men—may sometimes, with the best intentions, experiment on their patients with harmful drugs, such experimentation is repudiated by the man of science."

Well, extremes meet, anyhow. For here, in a paper devoted to the newest results of science, we find the superstitions and false philosophy of two thousand years back unconsciously reproduced! There is not a line in it which does not betray some fallacy in argument or mistake in matter of fact. Let us see.

We are told emphatically that the Physician must be a looker-on, while "another, over whom he has no control," performs experiments in his presence. Does this mean that the "Nature Worshipper" is still in the "theosophical" stage of philosophy, and sees, in disease, as the untutored savage does, an evidence of the *ira deorum*, with which he dares not meddle? If so, we respect his piety, but, on his own ground, would remind him that the same Being that sent disease gave also the Physician, and the drugs, and that ineradicable desire to obtain relief which constitutes a primary instinct in the human being.

But peradventure the writer may say, "I don't mean God, but I mean 'Nature.'" Then we ask, "Do you believe there is such a force as 'Nature' elsewhere than in your own conceptions? Are you still in the 'metaphysical stage' in which half-tutored man believes in the real existence of abstractions?"

Two thousand five hundred years ago the Medical world revered the operations of "Nature" in disease. A man was exposed to marsh miasm, and imbibed the morbid influence. "Nature" took the alarm; she testified her concern by shivering, followed by chills and burning fever. This process was repeated daily, or on alternate days; and to the sweats there was added a copious red sediment in the urine, and perhaps a diarrhœa. "See the efforts of Nature," said the philosophers of the day; "how, by a succession of febrile paroxysms, she produces 'coction' of the *materies morbi*, which she then expels by critical evacuations. The true Physician will fear to meddle with these processes, of which he is the attentive and anxious spectator." If an ignorant—so-called *practical*—man were to interfere with the divinely directed "efforts of Nature," we should have the *materies morbi* thrown inwards on the vital parts, and a swelled liver and dropsy would soon finish the scene.

But, lo! "an experiment" was made in the seventeenth century—not by the "true Physician," so far as he might be represented by the leaders and teachers of the Profession, but by the wild, untutored Indian, then by the fathers of the Jesuit community, and then by the irregular Practitioners of Europe. A bark was discovered, which made the true Physician aghast at the temerity of those who used it. The advocates of this audacious experiment derided the efforts of Nature; refused to wait for coction, or critical times, or critical evacuations, but simply cut short the disease by a powder that acted in a way that science could not explain, and never has explained to this day. So much for the true Physician as a spectator of a process he is not to meddle with! We wonder much what either of the eminent contributors to *Nature* would say if their Physician desired to be a spectator of an ague, or malarious neuralgia, or influenza, and refused to cut it short with quinine.

The man of sense treats "Nature" simply as a phrase for "what is," and deals with it according to his judgment and experience. If a disease is best let alone, or treated by rest and diet, he does so; but if it be the result of experience that he can shorten its duration and abridge its sufferings by a purge, or a dose of opium, or chloral, bromide, or any other drug, he remembers that drugs are part of "Nature," and that it is in accord with civilized man's nature to use them. As for the *practical* men whom our philosophers sneer at, we may say that to practise Medicine successfully—to satisfy the mind, gain the confidence, and assuage the sufferings, real and imaginary, of the sick—requires as much minute observation, shrewdness, practical tact, inventiveness, patience, and good temper as would qualify the possessor for eminence in any scientific pursuit whatever.

(a) Dec. 21, 1871. Published by Macmillan.

AMERICAN MEDICINE.

We this week publish the first of a regular series of letters relating to the affairs and position of our Profession in America, which we trust will alike prove useful to our subscribers here and gratifying to our American brethren. It has ever been our desire to foster progress in Medicine; and as there is no means more useful towards that end, or more honourable in every way, than giving credit to whom credit is due, we have deemed it advisable to secure the services of one of the most eminent men in the United States and in our Australian colonies respectively to keep our readers *au courant* with what is doing in their several localities. The *Medical Times and Gazette* is essentially a *Medical journal* rather than a newspaper with a Medical whitewash. Gossip, even though London gossip, is neither generally cared for nor even understood; and it is accordingly our endeavour to supply the wants of the hard-working Practitioner, with but little time at his disposal, not with the *on dits* of the Medical societies, but rather with that which may enable him to put an honest guinea in his pocket—some practical hint or some scientific fact which gives him a deeper insight into his Profession.

But it is not so much with regard to these things we now desire to speak; rather we take the opportunity of saying something on a subject which has long engaged our attention, and which recently has been rapidly assuming a greater and greater importance. It is at once our duty and our pleasure to watch the changes of Medical doctrine and the improvements in practice, as they are gradually evolved at home and abroad, and nothing has struck us so much of late as the marvellous strides American Medicine has made within a few short years. This was most forcibly brought home to us a little while ago, when we were asked to recommend a book as the best on each of a certain number of subjects. The list was not a long one, and yet about one-half of these we had it on our conscience to recommend were American. Now, if this is not saying much for ourselves, it is saying much for our American brethren. There has always been a number of Physicians and Surgeons in America quite on a par with the best in this country, but that number used to be very limited. Furthermore, the American school was marked by certain characters of its own—the curriculum was exceedingly short, only the merest smatterings of Medicine and Surgery could be picked up in

the period; and, with the exception of those educated in the older schools and abroad, few of its representatives could boast of great scientific attainments. Nevertheless, the men so educated, had to encounter the exigencies of Professional life as best they might; and here the vigour of the national character came prominently into play—so that, though rough, the Medicine and Surgery of the States had an exceedingly practical character. We have used the past tense here; for all this, although within the memory of most men now in the Profession, is already a matter of history. American Medicine has fairly passed into the scientific stage of development. It is well for us to look this matter fairly in the face, and to ask how it has been that, in America, Medicine has made such mighty strides in such a short space of time. As to the reality of the advance there can, we think, be no question; it is evidenced in many ways, but in none more powerfully than in the modern Medical literature, periodical and permanent, of the United States. With the abandonment of their dirty calf-binding and bad paper, the Americans seem to have made other changes important in every respect; and though we have not yet done them the compliment of pirating, as it is called, their works on this side the Atlantic, it is not because they are not used, for they are daily to be seen in the hands of students and Practitioners alike.

We have heard it said that most of the American literature, as it comes to us, is not new—only reproduced—and undoubtedly the criticism is in some sense true; but the existence of such a literature implies a demand for something more than the scanty facts of pocket text-books, and is itself an evidence of the advance of which we speak.

But this eager desire for the higher kinds of knowledge is made still more clear, to those of us connected with certain London institutions, by the crowds of men from America who flock there and elsewhere, seeking to prepare themselves to take a position in their own country. We are constantly meeting Americans—young and old—who have left America for one or two years, which they are spending in travelling from school to school, here and on the Continent, picking up everything that is to be learnt, and storing it up for future use. Go to Vienna, and the great majority of the English speakers there to be encountered are Americans; so, too, though in a less degree, in Berlin; and so, too, it used to be in Paris. These men have left their homes in search of knowledge, and we may be sure that, having acquired it, they will reproduce it with interest when the proper time arrives. These are the signs of American advance, and true indications of future American greatness.

We ourselves here in London would do well to ponder these things, for there is, unhappily, a tendency among us, more especially manifested in certain schools, to a display of self-satisfaction fatal to progress. Unfortunately, our system of Hospital education leads to foster this; it is diligently instilled into the minds of our students that to learn their Profession aright it is unnecessary to stir beyond the walls of their own Hospital. When ideas are bred in-and-in too long, the result is as disastrous as it is in animal life: a puerile conceit is apt to take the place of a masculine breadth of thought, and to beget its like in the minds of others. But our English students neither pass from Hospital to Hospital enough, nor do they go abroad. Of all the means available for expanding the mind, none are equal to travel; nor for producing catholicity in Medicine is there anything like foreign study. In this we fear even now the Americans are beating us. In the future we shall have to look to our laurels.

PRIVATE WARDS AT THE LONDON FEVER HOSPITAL.

The Committee of Management of the London Fever Hospital deserves every praise the Profession and the public can bestow upon it, for being able to say that "for many years not a single case of contagious fever has been refused admission to the institution and sent back to act as a new focus of disease." To appreciate the amount of good which the Fever Hospital has thus rendered the metropolis, we must bear in mind that until the opening of the new pauper fever asylums it has been the only institution of the kind in London. Its doors were open (as they were intended to be at its establishment) to all and to every class of fever-stricken patients, from the rich to the poor; and not only these, but paupers were received as well—half unwillingly, indeed, but still unavoidably, if one of the chief objects of the institution was to be fulfilled: the prevention of the spread of contagious fevers.

The opening of the new pauper fever asylums has, however, now relieved the Hospital of the objectionable portion of its applicants for admission, leaving to it such fever patients only as are independent of parochial relief, whether rich or poor. To accommodate these in a better way, the Committee of Management has availed itself of the space thus thrown into its hands, and it has taken the opportunity, at the same time, of setting aside part of this for the reception of cases of fever occurring in families in good circumstances, or in schools, hotels, among the *employés* of large commercial houses, etc.

As yet the arrangements can be considered as little more than provisional—we might almost say, experimental; but experience and encouragement will, we trust, gradually give them a more perfect development. At present they are these:—"Patients will be admitted into the general wards on the recommendation of a governor or annual subscriber of one guinea, or, as heretofore, on payment of two guineas on admission or of one guinea weekly. For such patients as require isolation and better accommodation than that offered by the general wards, eight large rooms have been prepared and furnished with every requisite for comfort, in which a single patient, or two children of the same family or from the same school, can be received. The payment for one of these rooms, with the attendance of an experienced nurse and the care of the resident Medical Officer and Physicians, and including food and medicines, has been fixed at three guineas per week."

We have been afforded an opportunity of examining the wards and rooms referred to above, and we are much pleased with the manner in which the Committee has carried out its undertaking.

Of the general wards we need say nothing; they must be familiar to every member of the Profession in the metropolis who feels especial interest in contagious fevers.

The new rooms we inspected with interest. They are eight in number—four on either side of the house; and of these, two are on the ground floor, and two on the one above. While they are all as similar in appearance as possible, they differ in this respect, that four are of one size, and four of another, the larger ones being intended to hold two beds, should these be required, as has been said, in the case of a couple of patients happening to belong to one family or school.

Each room has abundant cubic space; they are lofty and well lighted, and we need not add that the provisions for ventilation have been made as perfect as possible. The walls are painted of a pleasant light colour. There is a large and cheerful fire, and above this a handsome gas-bracket. The floor is of wood, uncovered, except with a couple of short strips of carpeting by the bedside for the sake of personal comfort; the bare floor being preferred in a room devoted to the reception of fever patients, for reasons easily comprehended. The absence of every kind of fabric that might be supposed to retain contagious matter is indeed striking; the blinds are made of wood, and the chairs are cane-bottomed. The other furniture comprehends every necessary to be found in sick-rooms of the better class, while whatever is useless, and so objectionable, is dispensed with;

for the use of the convalescent patient there is a special folding-chair, which will be found very serviceable.

In these days of typhoid fever and sanitary inspections, we inquired, with considerable interest, about the provisions adopted in the way of commodes and water-closets; but we were disappointed to find that they are not yet definitely made. Fixed water-closets there indeed are beside the rooms, but movable stools are as yet unsupplied. We were told that the Committee had entertained the idea of adopting the dry-earth system, but that they hesitate to do so from having received an unfavourable report upon it. A large movable bath will be in use in the rooms when required; in the upper floor there is also a special room set apart for this purpose.

It will be seen that we have here a most happy combination of the necessarily rigid construction of the ward with the arrangements of the bedroom—a combination, however, which retains only the advantages, and dispenses with the disadvantages, of each. So that while the former element provides the patient with all the benefits which experience and science can devise in the way of making his bodily condition as favourable as possible, the latter cannot fail to affect his mind in the most salutary manner; for he will find himself isolated, yet in a room where he is filled with a sense of homely comfort and contentment.

We need hardly add, that in addition to these advantages the patient here enjoys others even greater—the advantages of the best nursing and the best Medical treatment to be had in London. Altogether, the arrangement of the Committee of Management recommends itself to us, as it must to all who have had practical experience of what is meant by treating cases of typhus and typhoid fever in private houses. It is to be hoped that a hearty response will be made to the earnest appeal of the Committee to all directly or indirectly interested in the public health—to publish, as generally as possible, the knowledge of the existence of such philanthropic arrangements.

HEALTH OF THE NAVY.

The recently published Statistical Report on the Health of the Navy for the year 1869 contains ample evidence that, with the exception of some of the vessels employed on the North America and West Indies station, and on the south-east coast of America, the health of the total force afloat during that year maintained the progressive improvement which has of late years been observed with so much gratification by the country, and credit to the Medical Officers of the Navy. The total number of cases of disease and injury entered on the sick-list was in the ratio of 1221·9 per 1000 of the strength, being a decrease compared with the preceding year of 30·5 per 1000. The average number of sick daily was 46·2 per 1000, being a reduction compared with the preceding year of 2 per 1000. The number invalided was equivalent to 32 per 1000—less by two than the preceding year; and the mortality was in the ratio of 9·9 per 1000, being an increase of 1 as compared with the preceding year. This increase in the mortality was entirely attributable to the destructive influence of yellow fever in the West Indies. From disease alone the death-rate was 7·3 per 1000. Had it not been for the fatal exposure of certain vessels to the yellow-fever poison it would have been only 6·2, which would have been below the ratio of mortality of 1868 to the extent of ·3 per 1000. The death-rate on the North America and West Indies station from disease was 19·7, and from violence 3·7 per 1000, being a total of 23·4, and showing an increase of 14·2 per 1000, the largest which occurred during the year. On the south-east coast of America (which was also subjected to the yellow fever) the mortality from disease was 19·3, and from violence 2·1, or a total of 21·4 per 1000. The lowest death-rate from disease was on the Mediterranean station, and was only 4·2 per 1000, while the deaths from violence were at the rate of 3·7 per 1000. On the home station the deaths from disease were at the rate of 5·1, and from violence 1·8 per 1000. Compared with the preceding year there was a reduction in the death-rate on the home station of ·6 per 1000; on the Mediterranean of ·7; West Coast of Africa and Cape of Good Hope of 2·8; and on the Australian station of ·4. It is observed that on the West Coast of Africa and Cape of Good Hope station the benefits derived from removing the vessels of the squadron to other stations after a limited period of service continue to be experienced. The total death-rate on that station for the year was 10·4 per 1000, being the lowest on record; and there was a reduction in the rate of admissions of 248·1, on invaliding of 19·5, and in mortality of 2·8. The two stations of West Coast of Africa and Cape of Good Hope were amalgamated during the year. It would be premature to attribute the favourable results to this cause, although it probably exercised a considerable influence.

The history of the many and serious outbreaks of yellow fever among the crews of vessels on the North America and West Indies station is given at considerable length, and fully confirms the generally received opinions as to the communicability of the disease, its limitation to certain well-defined localities, and the immediate benefit to be derived by removing infected vessels to Northern latitudes. In some instances there appears to have existed an unhappy necessity for keeping fever-stricken ships in localities where a high temperature prevailed. And on this point it is very justly observed that it cannot be too often repeated, nor too strongly stated, that the only chance for a ship's company, amongst whom yellow fever has made its appearance, is to have them conveyed with the utmost speed to a cold latitude. Nothing but the most urgent necessity should justify any temporising or procrastination in respect to this measure. There is reason to fear, however, that in some instances senior and commanding officers have not appeared alive to the instant necessity of adopting it, and thus valuable lives have been sacrificed, which a clear appreciation of the position, and promptitude of action, might have saved.

One hundred cases of yellow fever on the above-named station were entered on the sick-list, and of these forty-eight proved fatal. This is more than double the average mortality of the disease, and is accounted for by the fact that many cases returned as simple continued fever were doubtless instances of the more fatal type. Surgeon R. C. P. Lawrenson gives a minute, yet concise and admirable, report of the outbreak of yellow fever in the *Barracouta*. He complains of having been left in ignorance of the unhealthy condition of Havana on the arrival of the vessel at that station. The authorities on the island must have been aware of the state of the public health, but it was during a visit to the military Hospital that Mr. Lawrenson first became aware of the extent to which the "*vomito prieto*" was prevailing. He immediately took all necessary steps to prevent the communication of the disease to his ship. His efforts were much aided by the prevalence of northerly winds, blowing from seawards, and the vessel enjoyed an immunity from yellow fever while at Havana. Having left that port on July 1, the *Barracouta* arrived at Port Royal, Jamaica, on the 6th, between which dates three cases of simple fever were under treatment, and became convalescent at the latter port. No additional cases were entered till the 11th, when two of the crew presented the primary symptoms of yellow fever. On the 13th and 16th respectively there was a fresh case; and on the 25th, while the vessel was undergoing a twenty-one days' quarantine at Bermuda—where she was unavoidably detained, being specially employed in assisting to take the floating-dock into the harbour—another, and the last, case having occurred, the vessel was ordered to Halifax.

Mr. Lawrenson was at first inclined to connect the origin of the disease with the epidemic at Havana, but he was afterwards

more disposed to credit Jamaica, if not with the whole responsibility, most certainly with a share. The place was beginning to be very unhealthy, and, as there was a great influx of visiters to the ship, although no leave was given to the ship's company, the disease could easily have been imported. One of the patients, also, whose case terminated fatally on the 20th, had been every night on shore, between the 6th and the 10th, so that his illness may, most probably, be traced to that place. It is nevertheless true, as observed with reference to Mr. Lawrenson's complaint of his not having been informed of the existence of yellow fever at Havana, that the concealment of the prevalence of epidemic diseases in foreign ports by the local officials is culpable, and "that the only safeguard against it would be vigilance and prompt action on the part of our consular establishments when any of our men-of-war are signalled as approaching the harbour. This, however, unhappily does not appear to constitute any part of the consular duties, and our vessels, for the most part, are first made acquainted with the existence and prevalence of infectious diseases by their sudden appearance amongst the ship's company."

The outbreak of yellow fever on the *Eclipse*, as reported by Surgeon R. F. B. Head, was attributable to exposure at Havana. A young officer who had been a good deal on shore at Havana was the first to suffer; he was attacked on arrival at Nassau, having been unwell during the passage. Two other officers, a carpenter, the paymaster, the boatswain, the chief-engineer, and the captain were subsequently attacked. The captain died; but the ship, after consultation with the principal military and Medical officer, having started with all dispatch for Halifax, there was an immediate arrest of the disease, with an improved condition of those suffering from it, as the temperature became reduced. The fatal results of delay at an infected station were exemplified in the cases of the French men-of-war *Curieux* and *D'Estrees* at Port-au-Prince. The former vessel lost her commander, Surgeon, several subordinate officers, and, eventually, almost the whole of her original crew. Our own ship *Philomel*, after the occurrence of seven cases at Port Royal, was ordered to Halifax, touching at Havana, where, on the recommendation of the Medical officer, she was detained, to be disinfected and fumigated, eleven cases in all having occurred—three of which, including that of the commanding officer, having been fatal. With reference to this case, it is observed that, "happily, the disease did not spread further; but nothing could justify the adoption of a step so flagrantly in opposition to all experience as to detain a yellow-fever-stricken ship in the harbour of Havana, for the purpose of having her disinfected and fumigated. It was most unfortunate that, at a time when every hour was of such momentous importance to those on board, the exigencies of the public service should have necessitated the *Philomel* being ordered to the Havana, instead of making a direct course, and with as much speed as possible, to Halifax."

During this epidemic Assistant-Surgeon T. B. Thomas, M.D., on the second day of the voyage from Bermuda to Halifax, in the gunboat *Albacore*, with marines and sailors suffering from yellow fever, was attacked by the disease. His conduct, under such trying circumstances, his desire (to prevent alarm) that the nature of his illness should be concealed from the others, are described as having been marked with the most self-denying thoughtfulness for those under his Medical charge. He succumbed on the evening of the fifth day, "the service being thus deprived of a young officer of rare promise, and of the highest Professional attainments."

The Deputy Inspector-General in charge of the Royal Naval Hospital at Port Royal contributes a very valuable series of observations on yellow fever, in continuation of those which have already appeared in the Statistical Report of the Navy for 1867.

Surgeon D. O'Connor, M.D., of the *Dryad*, gives a most interesting and valuable report of the epidemic of cholera at Zanzibar and along the east coast of Africa. He states that Dr. Kirk, the well-known African traveller and political agent at Zanzibar, has no doubt that the epidemic reached the coast from the Masai country, in the interior of Africa; but how it got there is much more difficult to make out. There are objections to every supposed mode of importation. Its advent from the Gambia overland, across all the natural obstacles of the whole African continent, from north-west to south-east, is against all probability; its passage by the Cape is not more probable, and is opposed to the fact of the disease having been prevalent in the interior before appearing on the east coast; its introduction from India direct is rendered unlikely by the fact of its having prevailed at Masai as early as September, 1869, at a season when the south-west monsoon puts a stop to all intercourse between Kurrachee and the African ports on the east; besides, it was not till the end of 1869 that the disease had extended down the Indus to Kurrachee. The difficulty, also, of explaining the immunity of the coast through which it must have passed still remains. The objection to its having been imported by Arabs and Eastern merchants trading with Abyssinia by the Red Sea is that there is no evidence of the disease having existed in any of the Abyssinian ports in 1868, nor was Dr. O'Connor aware of its having been there in 1869, although, having spent some months of that year at Bombay, he had some opportunities of hearing if such had been the case. The only question, therefore, is as to its origin *de novo* in the interior of Africa, Dr. O'Connor's own ideas being in favour of this presumption. He admits that there are many good reasons for the generally received doctrine of the present day, that every outbreak of cholera, in whatever portion of the globe it may appear, can be traced, link by link, with some outbreak in its "endemic home" in India. He does not, however, consider it to be yet established with certainty, and thinks that, so long as any doubt remains, "the probability of its origin *de novo* cannot oppose any principle of nosology nor involve any Medical heresy. Very little is really known of the physical features of the interior of the vast continent of Africa, still less of its geological or meteorological condition, and absolutely nothing of the history of its nosology. These are factors that all must admit play an important part in the outbreak and spread of cholera, and these are points that must not be forgotten in the question of regarding Bengal as the only source and home of cholera."

The question raised by Dr. O'Connor is certainly of considerable importance, and can hardly be lost sight of in the consideration of epidemics of cholera in the African continent. It will be long, however, before our knowledge of that country on the various points mentioned by Dr. O'Connor will enable Medical science to give a definite reply, either affirmative or negative, to the suggestion of the possibility of cholera having another endemic area besides that so long recognised in Bengal.

THE WEEK.

TOPICS OF THE DAY.

We are heartily glad to chronicle the progressive improvement of the Prince of Wales. His convalescence has been no doubt delayed by the local affection in the neighbourhood of the left hip, which has been mentioned so frequently in the bulletins. This affection has been the result of the protracted *decubitus* and of the long stages of exhaustion and debility through which His Royal Highness has passed. Medically, the occurrence of sore from pressure in such a case is a fact of interest for it proves that the most anxious care and highest skill will not suffice to ward off a sequela of long-continued fever, which is not seldom regarded by non-Professional persons as the consequence of inattention on the part of those who minister to the sick. Often have charges of neglect been brought

against the Medical attendants of the poor, based on the occurrence of the same local malady from which the best Medical and Surgical skill and the most accomplished and careful nursing have not been able to defend the Prince. This is a lesson which we think should not be lost. We are happy, however, to be able to announce, in the words of Thursday's bulletin, that "the local affection is subsiding," and that the Prince is surely and steadily gaining strength.

The scheme for a partial Conjoint Examining Board, formed by the Committees of the Royal Colleges of Physicians and Surgeons, and agreed to by the Universities, is, we learn, beginning to take a tangible form. The opinion of counsel has been obtained as to the legality of the proposed scheme, and has been given in its favour. A meeting of the Committees of the two Colleges took place at the Royal College of Physicians on Wednesday last, and we are informed that the favourable opinion given by the lawyers was read. There only now remains the discussion of details, which, we presume, will be settled before the scheme is submitted to the General Medical Council. Of course the great objection to the scheme is its imperfect character, and the exclusion of the general Practitioner of Medicine and Surgery from all participation in the examination of his own class in the Profession. Such exclusion, we believe, may work injuriously for the best interests of the rank and file of the Profession, and we therefore hope that the General Medical Council will not give their sanction to any plan which will throw the examination of the general Practitioner into the hands of pure Physicians and Surgeons only, or which will introduce a new class of registered Medical men with one diploma only—the licence of the Apothecaries' Society.

The Report of the Local Government Board "On the Result of their Inquiry into the Management of the Hampstead Small-pox Hospital," may be summarised in one word—"whitewash!" Of the seven charges which gave rise to the investigation—the first and second, that delirious patients were tied down in bed, and that strait-waistcoats were employed, are defended as having the highest Medical sanction; and on this point, at least, there is no difference of opinion as to the occasional necessity for such means of restraint. The third charge, of an inadequate supply of milk and beef-tea, is explained away by supposing that the patients who proved it did not draw any distinction between food and drink; that milk and beef-tea were in truth food, and therefore the patients ought not to have drunk them up so fast, but ought to have quenched their thirst with some less nutritive fluid. There is nothing, however, said as to whether any less nutritive fluid was supplied. Of the complaints of bad food, only that of the bad quality of meat is allowed to have any foundation. It is allowed that three children died in their beds without any person being aware of the fact; but the Local Government Board find it to be a matter of *satisfaction* that death in these cases was not unexpected, and that the nurses' ignorance of death having taken place did not imply that anything could have been done to prolong the children's lives! Lastly, it is quite true that a stinking dead body remained in the bath-room of a ward for many hours, but the circumstance led to no prejudicial results, and the only person to be blamed is the Assistant Medical Officer who gave orders to the nurse to have it removed. The Local Government Board, however, allow that patients were admitted into the Hospital without proper Medical examination; that the linen and clothing were insufficient; that fresh linen was supplied damp and imperfectly washed; that new patients were put into beds without any change of sheets; but all these shortcomings are condoned on the ground that the Managers were suddenly called upon to perform an arduous and previously unprecedented duty. On a previous occasion we have shown in a leading article on the subject that this was no excuse. As our views on the results of the Hampstead Inquiry have now been adopted by many other organs of public opinion, we forbear to enlarge upon this one-sided and unsatisfactory Report. The Report itself, we may remark, is the report of the Office, and is signed by Mr. Fleming; it is not the report of Mr. Henley and Dr. George Buchanan, which is a secret document, and has never yet been made public. We cannot refrain, however, from quoting the remarks of the *Times* of Wednesday on the whole bearing of the case—remarks which echo the opinions we advanced at its conclusion:—

"But this conclusion is not without qualifications, which throw a burden of blame upon the Local Government Board itself. The faults discovered are held to be venial, on the ground of the previous want of preparation, and of the absence of the necessary machinery, in skeleton, for meeting an epidemic. But Mr. Hardy's Act threw upon the Poor-law Department in 1867 the business of providing for such contingencies, and it was the evident duty of the Poor-law Board to have made such provision. The moment at which epidemics may occur is not to be accurately foretold, but in the present sanitary condition of great cities their occurrence is so frequent that it is an almost criminal negligence not to be duly prepared to meet them. Of the epidemic of small-pox there had been ample warning during the whole of the summer. It came not suddenly, but gradually, and after long threatening, and the Poor-law Board were in possession of official figures, showing the insufficiency of vaccination in the population of the metropolis, and the unprotected condition of masses of the people. They were equally aware of the stringent rules which close ordinary Hospitals against small-pox patients. Had they taken earlier and more efficient measures for enforcing on the guardians the duty of appointing vaccination officers and superintending the fulfilment of the functions of those officers, the epidemic could not have attained the huge proportions to which it finally developed. Had they considered in time the proper means for the due performance of the responsibilities which they assumed before Parliament, they would not now be called upon to excuse the admitted shortcomings of their agents, by alleging that they were suddenly called upon, without adequate preparation, to cope with an epidemic which, if the Board had done their duty, they would have been fully prepared to meet.

"Nor did the Poor-law Board show a much greater anxiety to test the efficiency of this huge and rapidly fitted Hospital than they had done to anticipate the necessities which called it into existence. It was a notable fact, elicited in evidence, that the Metropolitan Medical Inspector had visited the Hospital only six times from December to August, that the night nursing had not been tested at all, and that the information of the Board as to the character of the dietaries, the changes made in them, and the general administration of the Hospital was very imperfect. The character of the Poor-law Board was almost as much at stake in the course of this inquiry as that of the Managers; but this issue the inspectors, who were themselves officers of the Board, were not competent to try. It may be remembered that when the Bill which created these asylums and constituted their Boards of Management was passing through the House of Commons, the President of the Poor-law Board was pressed to undertake that there should be the same safeguards for efficient Hospital management by visiting Physicians as are provided at the great voluntary Hospitals. That pledge was officially given, but it has not been redeemed. The Local Government Board are now of opinion that the shortcomings of the Hampstead Hospital are largely due to the imposition of too many duties upon the Medical Superintendent, upon whom were piled the duties of House-Governor and Superintendent, as well as those of Visiting Physician. This in its turn led 'almost necessarily' to a neglect of duty by the Resident Medical Assistants, who, being called upon to resign, subsequently appeared as complainants. The status of a resident Medical officer at a small salary is, in fact, not always sufficient to impose respect upon his assistants (who are but little his juniors), or to afford adequate guarantees to the public for the efficient Medical treatment of this great mass of actually sick persons. From all these defects it is the sick who suffer. The Local Government Board has not yet raised the organisation of its Hospitals to the standard of that of the great voluntary Hospitals with which it must expect that they will be compared, and with which they ought to compare favourably. It has, at least in one essential respect, fallen short of its own promises. Had it fulfilled that pledge much of this scandal could never have occurred. The Medical Superintendent would have been less overworked, and could have attended to his duties

more thoroughly; the Assistant Medical students would have yielded a ready obedience to a visiting officer of obviously senior standing, and the representations of such an officer would have sufficed to obtain immediate remedy of temporary deficiencies such as are proved to have existed, and which no Hospital Physician would have tolerated. It is easily within the means of the Local Government Board to learn by experience and to strengthen the organisation of their staff against future emergencies. In acquitting the managers, the Board have themselves assumed the blame; it behoves them to see that they do not again incur a like reproach."

The friends of decency in the Infirmary and University of Edinburgh have met with two temporary defeats. The subscribers to the Royal Infirmary have, by a narrow majority, returned new Managers who are known to be favourable to the admission of women-students to the wards; and the Edinburgh University Court has declined to give effect to the resolution of the Senatus, which represented to the University Court the propriety of rescinding its resolution and regulations in reference to the admission of women to Medical education in the University. We have already remarked on the insane policy which the authorities of the University seem bent on pursuing—a policy which is certain, if persisted in, to ruin Edinburgh as a Medical School. *Quos Deus vult perdere prius dementat.*

Mr. Quain, the new judge of the Court of Queen's Bench, is a brother of the distinguished Surgeon-Extraordinary to the Queen, and a cousin of Dr. Richard Quain, F.R.S., one of the representatives of the Crown in the General Medical Council.

We hear that Dr. Guy has resigned the chair of Medical Jurisprudence at King's College, but that institution will still retain his valuable services as Professor of Hygiene.

THE PATHOLOGICAL SOCIETY.

The annual meeting of this flourishing Society was held on Tuesday, the 2nd inst. Perhaps from its following so close on the Christmas holidays, the number of members present was somewhat less than is usual on such occasions. The President and principal officers were this year re-elected with one exception, which we cannot pass over without remark. The labours of the Secretaries to this Society are unusually onerous, and press very heavily on those who undertake the duties of the post. Dr. Dickinson has for some time been Medical Secretary, and has fulfilled his arduous duties in such a fashion as to give satisfaction to everyone who had dealings with him. He has now resigned this post, and carries with him, we are sure, the best wishes of all connected with the Society. Dr. Cayley, of Middlesex Hospital, is his worthy successor. The Council and Treasurer had a satisfactory report to make: the finances of the Society are flourishing, and the transactions of the Society keep up their high character. Fewer specimens have been exhibited during the past year than usual; but this is a subject to which we may again revert.

LONDON POOR-LAW MEDICAL DISTRICTS.

In regard to the area and population of Medical relief districts, an order has been issued by the Local Government Board, removing the present restrictions, on the ground that the circumstances of the metropolis are so exceptional that the limit prescribed by the Regulations of the Board is not required. The order will have the effect of legalising several recent appointments, in which the Medical officers had a larger area and more numerous population than were prescribed by the Poor-law Regulations.

CHARING-CROSS HOSPITAL.

A movement is now on foot for laying down asphalte in the streets which surround this Hospital. Situated as it is, in the immediate vicinity of one of the noisiest thoroughfares in London, such a change is much to be desired on behalf of Physicians, Surgeons, nurses, and patients. In the meantime the Hospital is surrounded on every side by streets paved with the usual blocks of granite; close to it are the great theatres, so that at the very time the poor patients should be hushed in sleep they are kept awake by the noise of cabs and carriages. Those who know how insufferable that din is to sick ears will also best know the great advantage such a change as that proposed in the streets would be to the Hospital patients. We can, at all events, promise the movement our cordial sympathy and support.

DISEASE FROM HOUSES WITHOUT DRAINS.

What ingenious contrivance may next be resorted to to save expense at the risk of the health of the population it would be vain to speculate on. Just at this time, when the question of imperfect drainage is occupying the attention of most persons, and means are being taken to remedy defects, what do we find? That in the parish of Lambeth it has been discovered that some of the houses newly built are positively without any drainage whatever. They have, to all appearance, the appliances for drainage, but no connexion has yet been made with the main sewer. Here is a field for the new Medical Officer of Health to explore! No wonder that typhoid is so frequently found in the parish, and fever so often fastens upon the poor. It is really shocking to think of families occupying houses standing, as it were, in cesspools which are gaining a poisonous power every day. Are these houses the only ones having sham drains? We trust that the matter will be thoroughly investigated, and the builder be adequately punished. A heavy responsibility rests upon those who let tenements with a knowledge of this state of things, and it behoves all persons taking newly built houses to look to their drains.

AMERICAN MEDICAL MILITARY AFFAIRS.

The following extract is from the report of the Surgeon-General, Brigadier-General of America. He (J. K. Barnes) says:—

"The current expenses of the Medical department in the year are $267,477. The number of military posts requiring Medical attendance on July 1, 1871, was 206, at many of which the number of troops was so large, or the nature of the duties so onerous, as to require the constant services of the Medical officers. The Surgeon-General therefore recommends that the restrictions as to promotions and appointments in the Medical corps be removed, as it would, in any event, require several years, under the prescribed modes of annual examination, to restore it to the standard number allowed by existing laws. He thinks the stoppage of promotions and appointments has proved to be prejudicial to the interests of the service, both in a sanitary and economical view. The number of persons who have availed themselves of the provision of Congress under the Acts of June 17 and 30, 1870, to receive artificial limbs in kind, or a stated commutation in money, up to June 30, 1871, was 8918. These received 1117 legs in kind, and 3114 commutation; 104 arms in kind, and 4087 commutation; the rest received apparatus for resection. The number of persons furnished with limbs under Acts previous to June 17, 1870, was 7887. The health of the army has not been equal to that of the previous year. The total number of deaths reported was 519, or 17 per 1000 of mean strength. The mortality-rate is thus greater than that for the previous year, the chief increase occurring in the proportion of deaths from disease. The proportion of deaths from all causes to cases treated was one death to 122 cases. One thousand and ninety-one white soldiers are reported discharged on Surgeon's certificate of disability, being at the rate of 37 per 1000 of mean strength. The number of coloured soldiers discharged on Surgeon's certificate of disability was 71, or at the rate of 27 per 1000 of mean strength. There are now recorded in the division of Surgical records a total of 235,398 cases, of which 5210 were recorded during the past year. Part first of the 'Medical and Surgical History of the War' is near completion, and will be laid before Congress during its coming session. The Surgeon-General urges an appropriation by Congress to complete the remaining parts."

SMALL-POX JOTTINGS.

Forty-four small-pox patients—being the highest yet experienced—were admitted into the North Dublin Union during the past week. There were 180 cases under treatment in the Union, and seven died during the week.——Five new cases of small-pox are reported in the Medical relief district in Islington during the past week, against two in the previous week; there had been no death from the disease in the same period.——Small-pox was fatal in four cases in St. Peter's district, Newington.——Small-pox is still increasing in Wolverhampton. At the meeting of the Town Council last week, Mr. Collins, a Surgeon, charged the Corporation with indifference to vigorous measures if they involved outlay. They would not erect an auxiliary small-pox Hospital outside the town. The Officer of Health cannot prevail upon the Sanitary Committee to purchase a disinfecting machine.——One fresh case of small-pox and four deaths last week, against two fresh cases and no deaths in the preceding week, have occurred in Kensington.——In the Homerton Hospital four deaths are recorded from small-pox during the past week, and one from fever; there had been eleven new cases of vaccination, and eight successfully terminated.——In consequence of the prevalence of small-pox in Edinburgh the Public Health Committee intend to erect a temporary wooden building to accommodate thirty patients, for the use of the convalescent, who will be removed to it from the Hospital; and an extra inspector has been appointed to enforce the necessary sanitary measures.——At Wakefield, twenty-four fresh cases of small-pox during the past fortnight have been reported.——At Shrewsbury the disease is on the increase; it prevails chiefly amongst the Irish residents.——Small-pox has broken out at Whitby; several fatal cases have already occurred.——In Poplar Union four deaths from small-pox occurred last week, and eleven new cases are reported. In the same period eighteen persons had been vaccinated at the public stations. There were at that time fourteen small-pox patients under treatment in the North-street Infirmary.——The disease is spreading at Halifax; twenty-seven persons are in the workhouse afflicted with it, and there are nine cases of enteric fever.——After landing two cases of small-pox at Lisbon, the Medical officers were enabled to vouch for a clean bill of health on board the ships composing Rear-Admiral Beauchamp Seymour's flying squadron.——An increased number of small-pox cases of a virulent type is reported in the village of Hanwell. The Lambeth police-magistrate last week fined a resident at Peckham £5 for having removed his son (who was suffering from small-pox) in a cab without proper precaution.——The Ellesmere Board of Guardians have agreed to pay their officers by certificate of successful vaccination, 1s. for each certificate.——Five fresh cases of small-pox were admitted last week into the Darlington Union; nine still remained—five convalescent and four under treatment.——Ninety-seven persons died from small-pox in London last week.——Two cases of small-pox are reported by Dr. Aldis, of St. George's, Hanover-square—one in the in-wards, removed to the Hospital; the other in the out-wards.

AMERICAN LAW ON THE CIVIL LIABILITY OF MEDICAL MEN FOR CARELESSNESS.

"The apothecary sold to a person for tincture of rhubarb two ounces of laudanum, which were administered to a sick man, from the effects of which he died some hours after. The Supreme Court of Massachusetts decided that the cause of action survived to the administrator, without regard to the question of privity of contract between the apothecary and the sick man, the ground of action being the injury caused to the body of the intestate by the apothecary's act."—*American Law Register.*

Divested of all technical phraseology, this decision simply means that a Medical man who, through gross ignorance or carelessness, kills a patient, is not only amenable to the criminal law, but is liable in damages to the representatives of the deceased. The conclusion at which the American Court has thus arrived by a process of induction, was long ignored by the expounders of the law of England, until, by an Act of Parliament, 9 and 10 Vict., c. 93, known as Lord Campbell's Act, it was enacted that, "whenever the death of a person is caused by some wrongful act, neglect, or default which would (if death had not ensued) have entitled the injured party to an action, then the person who would have been liable if death had not ensued shall be liable for damages, though the death was caused by an act amounting to felony; and the action shall be for the benefit of the wife, husband, child, etc., of the deceased, and in the name of the executor or administrator," etc. It redounds much to the credit of the Medical Profession that no such action has yet been brought against a member of the Profession; but this piece of legislation has anticipated the construction put upon the common law by the Court of Massachusetts—statute law being, after all, but a declaration of what the common law is and always has been, although the ancient law may have fallen into disuse or have become disputable. The maxim that there is "no wrong without a remedy," is the principle of the common law, although the nature of the remedy may, for avoiding all doubts and difficulties, require a remedial statute to declare it. The present statute is, however, not the less forcible because it has not yet been appealed to.—(*See* "Weightman's Medical Practitioner's Legal Guide," p. 38.)

MR. HOLMES COOTE.

The friends of Mr. Holmes Coote, Senior Surgeon to St. Bartholomew's Hospital, will be glad to learn that his health is so far improved as to enable him to resume the practice of his Profession.

FROM ABROAD.—M. RABUTEAU ON THE PROPERTIES OF THE CHLORIDES—M. DECAISNE ON SUICIDES IN FRANCE—M. BEAUNIS ON THE AMBULANCE AT JURANVILLE.

At the meeting of the Académie des Sciences on December 26, M. Rabuteau presented a communication on the "Physiological Properties of the Chlorides." The following is the abstract of its contents furnished by the *Union Médicale:*—

"The chlorides of sodium, potassium, and magnesium render nutrition more active. Experiments prolonged over several days have shown that they increase in a notable degree the elimination of urea, and that they raise the animal temperature. Under a slightly saline regimen, followed by a strongly saline one (to the extent of ten grammes of chloride of sodium a day), the variation of the quantity of urea eliminated in the twenty-four hours has nearly reached 20 per cent. The chlorides of ammonium and potassium, taken to the extent of five grammes, have given rise to nearly the same variation in the quantity. But, while the chlorides of sodium and ammonium render the circulation more rapid, that of potassium renders it more slow; this last, therefore, exerting a double action—as a chloride increasing nutrition, and as a salt of potassium rendering the pulse slower. The action on nutrition is explained by the increase in the quantity and acidity of the gastric juice, caused by the chlorides of sodium, as also (as shown by MM. Plouviez and Poggiale) by an increase of the number of the red globules of the blood by its use. In this way are explained the physiological and therapeutical effects of this salt. They show us why animals subjected to a saline regimen are in better health, in consequence of their nutrition being rendered more active, and why, although they have more appetite, they yet do not increase in weight (as shown by the experiments of MM. Boussaingault and Dally), since their deassimilation is increased.

"The perchloride of iron, when introduced into the economy, is reduced on coming into contact with albuminoid matters and various organic substances. It does not coagulate the albumen, and is very easily absorbed by the stomach. M. Rabuteau, having proved that reduced iron and the oxides and carbonate of iron are transformed into protochloride by contact with the hydrochloric acid of the gastric juice, proposes the

substitution of this salt for Medical uses, in place of the other preparations.

"The chlorides of gold and palladium administered to rats underwent reduction, and, when their use was prolonged, gave rise to an albuminuria connected with lesions of the kidney. M. Liouville has described an argentine albuminuria, and M. Ollivier a saturnine. M. Rabuteau in the present experiments also found albumen passing into the urine after the administration of the acetates of cadmium, uranium, etc. These forms of albuminuria might be designated by the general term, *metallic albuminuria*."

At a recent meeting of the same Academy, M. Decaisne read a note on "Three of the Modern Causes of Suicide in France."

He observes that Paris is the city of the world in which the largest proportion of suicides is met with, having now reached the fearful number of one in seventy-two deaths; and, moreover, while the number of voluntary deaths is decreasing in London and New York, it is continually on the increase in Paris. The three causes which M. Decaisne terms "modern" are —(1) The influence of political passions, and the new democratic spirit; (2) the weakening of religious ideas; and (3) the increasing progress of alcoholism. With respect to the first of these—the modern *morbus democraticus* of the Germans—he quotes the opinions of MM. Brierre and Legoyt in proof of its reality. On the other hand, M. Vacher, in his excellent account of the comparative mortality of Paris, London, Vienna, and New York, denies the influence of the democratic spirit in the production of suicides, pointing out that the United States, under the most democratic of *régimes*, produces very few suicides. Moreover, he does not believe that suicide is on the rapid increase in France supposed by some. M. Le Roy also shows that at troubled political crises—such as 1830 and 1848, for example—there are really fewer suicides than in calmer times. But M. Decaisne maintains with Esquirol that political influences act as exciting causes, which bring into play this or that passion, and impress this or that character on insanity. It is to be borne in mind that, if these influences do not immediately betray themselves by an increase in the number of suicides, they generally, in subsequent years, give rise to a recrudescence of cases of insanity, among which many voluntary deaths take place. As to the second cause, M. Decaisne has nothing beyond a general *à priori* statement to advance. In alcoholism he believes that he sees something more definite—as well he may, if the statement be authentic that the suicides from drunkenness have risen from 142 in 1848, to 471 in 1866. It is said that one female death takes place from this cause to seven male deaths.

As an appendix to his interesting narrative of the campaign on the Loire, publishing in the *Gazette Médicale*, M. Beaunis furnishes some account of the ambulance which he established at Juranville. Here he had to treat 236 wounds, under most difficult circumstances and great privations. They were for the most part very severe, some of the men having two or even three of these. The patients altogether amounted to about 300; of these a few were Prussians, and of them M. Beaunis observes that he considers their vital power is greater than in the French, for they bore better the immediate consequences of the wounds—the nervous irritation, agitation, shock, and traumatic fever being less considerable and slower in appearing than in the French. This was no effect of courage or stoicism, for they cried out under the pain of operation just as loudly as the French did. "It is rather a consequence of a less delicate and more blunted physical sensibility." Most of the French were young men accustomed to labour in the fields, but not yet habituated to the hardships of a campaign. Their constitution was more robust in appearance than in reality, for although their limbs were large, bone and cellular tissue prevailed over muscle and nerve. Of a lymphatic or lymphatico-sanguine temperament, they were devoid of energy and elasticity, dejection and discouragement rapidly replacing the factitious excitement of the fight. As to the medium in which they were treated—216 wounded were distributed among sixteen houses of the village, comprising in all forty-three rooms, each containing a mean of five patients. Of the forty-three rooms only seven or eight were suitable, while twelve were only cattle-sheds or stables. As this wide dispersion of the wounded over a large space involved much labour in attending to them, it was proposed to transport as many as possible into the church; but to this M. Beaunis positively refused to consent, for however useful churches may be as temporary receptacles for the wounded crowding in just after a battle, as permanent ambulances they are to be proscribed—a rule the utility of which has been shown in many instances during this campaign. At all events, the wounded were disseminated, which is always an important point when they exist in large numbers; and, in fact, in spite of the severity of the wounds, their course was very favourable, and the mortality was very slight.

As in most other ambulances, sword and bayonet wounds (*armes blanches*) were completely wanting. This may arise to some extent from the fact of the wounds caused by them being slight, and allowing of the soldiers following the army; but it is far more due to the long range of the arms now in use and the rarity of bayonet charges. Another fact observed was, that the wounds from balls were incomparably more frequent than those from fragments of shells, the proportion being, in fact, 220 to 16. Cold water was the principal means employed in treating these wounds, adding phenic acid during the suppurative stages. Opium was the only internal medicine at command, not even purgatives being attainable. The patients complained much of the prolonged constipation, which there was no means of relieving; but this spontaneously yielded after some days, and did not seem to exert any injurious effect upon the progress of the cases. The cases of injury of the head were few in number, which is explained by the rapid death of many of such patients, a large proportion of those dying soon after the battle having had this lesion. Penetrating wounds of the chest were numerous, amounting to seventeen cases, in two of which there was hernia of the lung. In six cases there were penetrating wounds of the abdomen. The great majority of the cases were wounds of the limbs, forty-four fractures being produced, fifteen of which were fractures of the thigh. The treatment of these cases, in the utter absence of all apparatus, was a matter of great difficulty. It was observed that the *immediate* effects of fracture of the leg were more serious than those of the thigh. In the former, erysipelas, inflammatory œdema, and gangrene were met with, while fractures of the thigh in general pursued a tolerably favourable course. Wounds of the knee (although these were generally accompanied by fracture of the bones or lesion of the synovial membrane), did not give rise to such disorders as to call for immediate amputation; usually they pursued a simple course, no accident of importance arising during the first twelve days. But the prognosis in such cases should be none the less guarded, for it is just in wounds of the knee that lesions in appearance of the most simple character pursue an insidious course, presenting, when recovery would seem assured, the most dangerous complications. No case of really serious hæmorrhage presented itself during the treatment of the 236 wounds in question. Although an advocate of immediate amputation—*i.e.*, before traumatic fever has appeared—in severe injuries, the circumstances in which these patients were placed precluded the author resorting to it in more than five instances. During the twelve days which he remained with the ambulance only twelve of the patients died, and he attributes this favourable result solely to the dissemination which the necessities of their position compelled. He found most deaths occurring on the third, fourth, and fifth days, and then on the ninth day.

OPENING OF THE PHYSIOLOGICAL LABORATORY AT ST. THOMAS'S HOSPITAL.

DECEMBER, 19, 1871.

ADDRESS BY DR. JOHN HARLEY.

GENTLEMEN,—The arrangements for the study of Practical Physiology in this School are now completed, and Dr. Ord and I have called you together this afternoon to introduce you to the laboratory, and to give you, in brief outline, a notion of the kind of work which we propose to do in it. And I must say that it is with feelings of deep satisfaction and delight that I witness the inauguration at St. Thomas's of what has been to me for many years a pleasant and hopeful thing to dream of, but without any prospect of this speedy accomplishment—I mean the practical study of Physiology in our schools. To-day, however, this is amply provided for, and my utmost wishes are fulfilled. Similar feelings of pleasure and satisfaction will, I trust, animate each one of you as you realise the conveniences devised for you, and by means of which you will be enabled yourselves to demonstrate the facts which have been brought before you in the systematic course.

In this crowded island and murky atmosphere, we are most fortunate in possessing those two first essentials of a work-room, ample space and abundant light; and besides these, we have good ventilation and an uninterrupted supply of hot and cold water. The department of Practical Physiology enjoys the use of this spacious room in which we are assembled, and which contains sixty-four work-tables, at which the same number of students may work simultaneously; of a large inner laboratory; of a private room; of a furnace-room for combustion, evaporation, drying, etc., supplied with steam and every convenience for analytical research; of an enclosed yard in which we can keep animals required for our experiments; and of a store-room—the whole occupying an area of nearly 2000 square feet, the rooms *en suite*, and the whole separate from every other department.

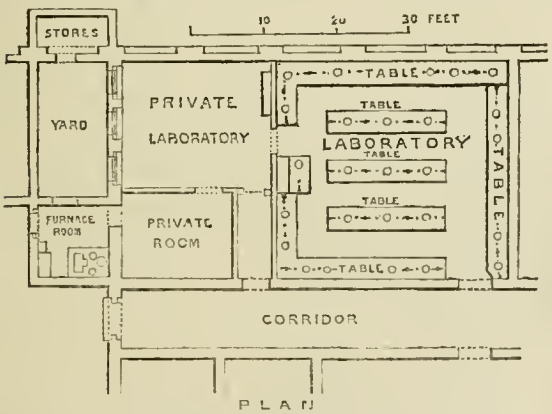

FIG. 1.—Ground-plan.

For the completeness of this arrangement, and for the means of making these bare walls and floors what you now see them, we are mainly indebted to the foresight of our thoughtful Treasurer, and to the keen interest which he has taken in this as in every other department. Our architect, Mr. Currey, too, deserves our thanks for giving us those essentials to our health and comfort to which I have already alluded, and which, as we are well aware, are not always attained, even under the most favourable circumstances. The two long skylights of clouded glass, which traverse the whole length of the roof,

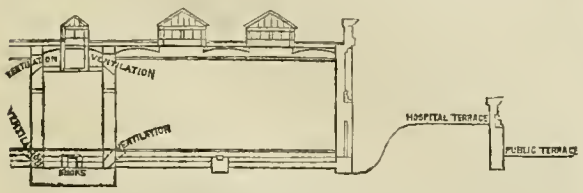

FIG. 2.—Section across Physiological Laboratory and Corridor.

give a most perfect light for microscopical work, and so abundant is it that I have been able to continue my investigations as late as four o'clock in the afternoon of these shortest days of our year, without once thinking of artificial light.

But, to come to details, and, first, the means of work. We have accommodation here in this room, as I have said, for sixty-four students, and elbow-room enough for all. The tables are so arranged that each student has the command of a low Argand gas-lamp for the microscope, of a Bunsen's burner for heating, and of a tap of water, placed over the centre of a fair-sized basin, furnished with overflow- and waste-pipes. The water-pipe is so arranged as to serve the purpose of a retort-stand on either side, and is fitted with running clamps to take various forms of supports. Each table is further supplied with a removable iron rod and supports for the more complicated apparatus required in volumetrical analysis, and with a rack for holding test-solutions, tubes, etc. Carrying now the eye a little below the surface, you will see first a large drawer, and beneath this a smaller drawer and closet on one side, and a knee-hole on the other. The larger drawer is for the storage of apparatus only occasionally required during the course. The smaller drawer and the closet are fitted with the same key, and this will be given in charge to the student to whom the particular table is allotted. In order to give you individual security, each set of drawers and closet is furnished with a different lock and key. The smaller drawer is fitted with a rack holding the necessary colouring and preservative solutions for the tissues, and cement for microscopical cells; there are also compartments for knives, needles, glass slips, etc. The rest of the furniture consists of a soft cloth, of a piece of cork upon which you can make your sections, and of a preparation-box (shown in the figure).

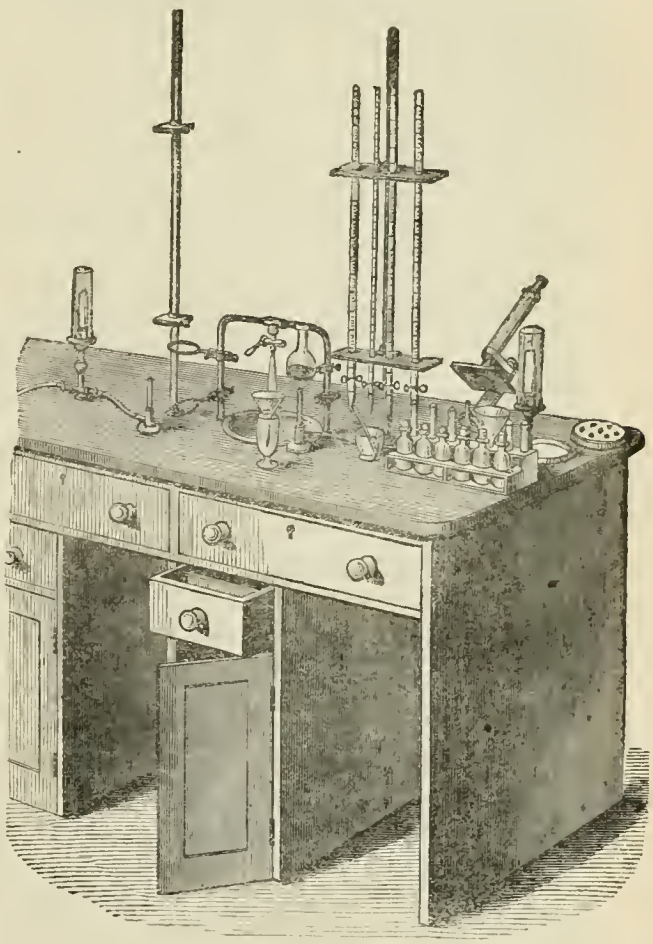

FIG. 3.—One of the work-tables

This latter will be a very useful addition to the table. It is a sort of round palate or compound gallipot, furnished with a cover, and contains seven small but rather deep circular

depressions, in which the animal tissues may be soaked in their appropriate solutions before they are mounted. The cells are numbered, so you may note in your book "No. 1, kidney," "No. 7, muscle," and so on. Messrs. Copeland, of New Bond-street, have made me this little article, and they will soon be ready to supply you with an additional one, should you want it for home use. These boxes will be equally useful in some of our chemical investigations. If you wish to be extravagantly neat, you may get a writing-diamond to use in lieu of labels, a turntable to finish off your cells, and any other accessory apparatus you please, and you will find plenty of room for them in your drawers. The closet, I need not say, is for the reception of your microscope and cabinet of specimens. The tables around the walls have a slightly different arrangement, and they have the additional convenience of shelves. Those of you who do not already possess a microscope will be able to obtain one sufficient for our work for the sum of £5. Two good makers (Messrs. Baker, of Holborn, and Pillischer, of New Bond-street) have both courteously accepted our suggestions, and have produced, in your behalf, instruments which we can confidently recommend to you. The stands are steady, and furnished with coarse and fine adjustments, and simple roomy stages. Each possesses a good quarter-inch object-glass and a single eye-piece. Mr. Pillischer has expended all the labour on these, and charges the instrument to you at £5. Mr. Baker gives a black box in addition, and supplies the whole for £4 15s. But I cannot mention a box without objecting to it. I think there is no greater hindrance to microscope work. The microscope is so perfectly fitted to, and packed in, its box, that you naturally feel a repugnance to disturb them; and then the time one wastes in packing and unpacking! Pray do not hamper yourself and your neighbours here with a box, but deposit your microscope in its brazen nudity in your closet; and then, I am sure, you will use it on the slightest occasion. But you "will want to take it to the seaside," you say; well, you can roll it up in your dressing-gown, and put it in your portmanteau, or borrow a soap-box from the kitchen. To put the case in another way—£5 expended on a microscope alone should produce better optical results than £5 expended on a microscope *plus* a case. It is quite another matter if you are expending a sum of £20 or £30 on an instrument. But to return to these particular microscopes—they are such as will, I am sure, satisfy your Medical wants, not only in this laboratory, but at home, and when you have become the busy Practitioner; and I hope that when we meet after the Christmas recess you will each be provided with one.

So much for the means of work. Now as to the work itself. I am afraid that very erroneous impressions have been made respecting the nature and scope of Practical Physiology, and that those who are watching its development in England with an intelligent eye, have just cause for regarding it, so far as the student of Medicine is concerned, as *impractical* physiology. But very little truth can be elicited, I think, by the rack; and that mind must be exquisitely, not to say cruelly experienced, and gifted with uncommon penetration, which is able to find the truth, to eliminate it, and to calculate its amount when the functions of the body are so unnaturally interfered with, and the whole system is affected with the tremor of fright or exhaustion. How, for example, is it possible to estimate the natural force of the heart, or the amount of arterial pressure, in a mutilated animal upon the rack? Why, the very emotions cause fluttering of the heart and dilatation of the bloodvessels; and if you do but speak to a dozing dog, his pulse and breathing will be doubled in a few seconds! No, we must get at the truth some other way than this. I do not say that we shall not divide this or that nerve to illustrate its function. What I mean is this: that vivisection will form no part of our practical course, and that we shall take every opportunity of making Nature interpret herself by taking Pathology for our constant guide. Nature has prepared for us every conceivable experiment, and daily exhibits them in man himself, in our wards and our prescribing-rooms. The last time I examined my Hospital patients, we saw the effects of prolonged ligature of the common bile-duct; of atrophy, in one case of the lower, and in another of the upper part of the spinal cord; of the effect of pressure on the hypoglossal nerve; and of disease of one portion of the nervous system causing complete atrophy of the whole of the muscles of one limb. It is at the bedside, in the out-patient rooms, and in the pathological theatre that you must study experimental physiology. By exercising your best powers of observation in these places, and bringing your facts to bear upon the work of this laboratory, I promise you we shall be able to discover many of Nature's subtlest workings.

Our work will be divisible generally into two great branches—microscopy, and physiological chemistry. The former will embrace the examination of every tissue and product of the body, normal and morbid. The latter will include an examination of the physical forces as they are manifested in the body, and will be applied to the examination of its fluids and excretions, and the variations of these under different conditions; and to the mode of elimination of medicines. And thus, by the aid of all these three means of study—direct observation of the experiments prepared by Nature or resulting from accident, the use of the microscope, and the application of the balance and test-tube—we shall be able to learn the structure and development of the divinely-fashioned machine, and much, if not all, of the modes of its wondrous working. We shall leave "vital force," with the philosopher's stone, behind us—fit companions of our early days of ignorance—and, thus untrammelled, penetrate into those marvellously directed and controlled reactions and interchanges of matter which unfold to our view the power and goodness of the Creator, with a clearness and certainty compared to which the empty-returning fancies of hereditary superstition are doubt and darkness. To such a task—the widest, deepest, and most interesting that can engage the intellect—we must bring humility, earnestness, and painstaking care. We must wrestle well and patiently for the truth, and strain every nerve to get it, for we know that it is this alone can make us free.

REVIEWS.

Lectures on the Principles and Practice of Physic. By Sir Thomas Watson, Bart., M.D., F.R.S., etc. etc. Fifth edition. Two vols. London: Longmans, Green, and Co.

[FIRST NOTICE.]

As a general rule, when any work proves so acceptable that repeated editions of it are called for, no review of any but the first issue seems necessary or desirable, nor any notice beyond the simple announcement of each edition as it appears. But it is impossible so to deal with this edition of Sir Thomas Watson's famous work; for not only are very special and hearty thanks due to him for having undertaken the great labour of giving us another edition, but the work has been revised throughout, and has been largely added to, so that though diseases of the eye (with the exception of inflammation of the iris) have been omitted, the work consists of a considerable number of pages more than it did in the fourth edition. On the first appearance of the book, in 1843, it at once became first favourite among Medical works, and, ever since, each succeeding edition has been eagerly and anxiously looked for. Who does not cherish a grateful recollection of the surprise and delight with which he first read "Watson's Lectures"? We have all been charmed with the ease and lucidity of the style, the vigorous and graphic descriptions of disease, the felicity of expression and happiness of illustration, the fulness of knowledge and experience, the utter absence of anything like pretentiousness or display; we have felt throughout the presence of wisdom as well as knowledge in the teacher, and have been impressed by the high tone of thought and feeling, and the unaffected reverence for exactness and honesty of scientific observation and record. Indeed, the very beauty and charm of the writing might almost be charged as faults in a book for students; all seems so clear and simple, that there is perhaps some danger that one may be led to read on and on without really giving to the subject-matter the attention and thought necessary to make the knowledge one's own, and which might be forced from us by less happiness of expression and a less flowing and limpid style. But no one can be so captious and ungrateful as to advance such an objection as this seriously, and we confess to envying the Medical youngsters who have yet to read these lectures for the first time. At the same time, we will dare to confess that we think the first edition of "The Principles and Practice of Physic" was, and is, *the* edition *par excellence*. All who have not, and cannot have that, must, most rightly, be deeply grateful to Sir Thomas Watson for the labour bestowed by him in giving them the succeeding editions; but the work as it first appeared was a book by itself in character and kind, and each attempt to keep it up to the Medical science and art of the day, as the successive editions appeared, has, in our eyes, somewhat detracted from its peculiar beauties and excellencies. It may be said that this is only a way of saying that we are growing old, and still best love the loves of our more youthful days; but we think these lectures do belong to that kind of work which does not well bear retouching.

In taking up this new and thoroughly revised edition, one—naturally, perhaps—looks first to see what Sir Thomas Watson says on bloodletting. There is, we think, a growing and widening conviction that that powerful means of remedying or lessening some diseases has been vastly too much decried and neglected, and that the almost absolute disuse of it in these days is as great an abuse as the over-use of former days was. So we turn to see what the wisdom and ripe experience of Sir Thomas Watson have taught him on the subject. We find it most clearly and ably treated of in Lecture xiii. Having pointed out the difference between *general* bleeding (or bloodletting) and *local* or *topical* bleeding as remedies, he observes: "The failure to perceive this paramount distinction—first noticed in print, so far as I know, by Dr. Markham—has been the main cause of the strange and wide fluctuations of opinion respecting the true value of bloodletting that deform the annals of practical Medicine. In times past, no doubt, bleeding as a remedy was apt to be employed inopportunely, to be misdirected, or to be pushed beyond its proper and safe limits; but of late, practical Medicine has rushed to the very opposite extreme. Which of the two mistakes is calculated to be most injurious to the human family it would not be easy to estimate. I remember the time when a Surgeon who found a man lying in the street in a fit, was blamed and abused by the bystanders if he did not at once open a vein in his arm. To do this nowadays would be to incur the charge of murdering the man. One melancholy consequence of blind submission to authority, or of the senseless influence of what is called fashion, is the almost total want of experience about bloodletting among the current generation of Medical men. I have heard of a London Physician who, being desirous of having one of his Hospital patients bled, could find no one among the House-Surgeons, or advanced pupils, who had ever seen the small operation of venesection done, or knew how to do it." This we can easily believe. A few months ago we wished one of our Hospital patients—a man suffering from intense pulmonary congestion—to be bled from the arm, and our House-Physician, a pupil of one of the largest Medical schools in London, had had no practical experience whatever of the "small operation." Sir Thomas goes on to remark that "the trade in leeches has dwindled to a miserable fraction of its former magnitude; and the art of cupping, and the once thriving and useful race of cuppers, are extinct. It is argued by those who denounce bloodletting absolutely and altogether—and to whom some of our American brethren have applied the coarse but expressive nickname of *blood-funkers*—(in which, by-the-bye, they unconsciously follow Galen, one of whose patients called him ἄιμαφοβος, because he would not bleed)—"that every deviation from sound health implies a loss or lowering of vitality," and that the taking away of blood, being itself depressing, must increase rather than redress a morbid condition. "Now," he says, "there is abundant evidence that this great dread of abstracting blood is a mere bugbear." Sir Thomas then discusses the subject of local bleeding, and, having given several very telling and happy illustrations, he says, "I hold it, then, to be certain, that in many cases of inflammation *local bleeding* is a powerful, a safe, and, therefore, a proper and eligible remedy, and that its beneficial operation consists in diminishing, by direct withdrawal, or by diversion, the quantity of blood distributed to the part or organ inflamed. But what of *general bleeding?* what of venesection in particular, as a remedy for inflammation? It is in this matter, I am bound to admit, that great mistakes have formerly been made, that a potent agency has been misdirected." And after a full and most instructive discussion, he arrives at the conclusion—"I hold it, then, to be certain, that for some special morbid conditions, which inflammation may or may not accompany, general bloodletting, and especially venesection, is a potent and life-preserving remedy; that there are many exigencies for which it is not only safe to employ, but safe and unpardonable to withhold it. I shall have to return to this subject hereafter, but I may repeat now, in brief terms, that the condition which cries out for and obtains relief so signal and immediate from phlebotomy, may be described as that of great, and often sudden, engorgement of the vessels that (I use Dr. Johnson's phrase) carry black blood—of the systemic veins, of the pulmonary artery, and especially of the right chambers of the heart. In this embarrassed condition of the circulation, with so unequal a distribution of blood in the two different systems of vessels, it is the veins that require emptying, not the arteries. As the tension of the stretched and almost paralysed right ventricle is lessened, the hollow muscle again becomes capable of contracting upon and propelling its contents, the clogged lung is set free, the functions of the oppressed brain are eased and retrieved, and the balanced play of the heart and lungs is restored. This, as it seems to me, is the true philosophy of bloodletting in disease, approved by reason and justified by experience. The credit of having been among the first to rectify the vague notions that formerly prevailed on the subject is fairly due to Dr. Markham."

And then we are given some further directions to guide us in the use of bloodletting, as to time and opportunity, age, sex, general temperament and condition of the patient, and so on.

We believe that no standard work on Medicine is so much read by non-Medical men of education and mark as "Watson's Lectures," so we may hope that Sir Thomas's opinions of the value of bloodletting may influence the outside world in favour of that remedy, as well as incite and encourage Medical men again to call in its aid more frequently in the treatment of disease.

Two additions have been made to the specially admirable and well-known lecture on the "Different Modes of Dying." Observing that, after death from mechanical closing of the larynx, "the lungs are always found empty of blood, while there is vast engorgement of the right heart, of the great veins, and of the pulmonary artery up to its minutest ramifications," this condition is thus explained:—These facts "show that some opposing power must have been called into play, more than equal to the propelling power of the right ventricle of the heart. Now, such a power—and it is the only conceivable one—actually exists at the very place where the venous current meets with its curb, and it consists in the firm contraction of those muscular fibres of the minute arteries, the function of which it is to regulate the blood-supply in accordance with the varying requirements of the part. This function again is determined by those unsleeping sentinels, the (vaso-motor) nerves. Were it allowable, for the sake of illustration, to impersonate the vital forces concerned in this marvellous adaptation, we might liken the process to the intelligent stopping of the traffic on an obstructed line of railway by a backward telegram. Or take another illustration. The blood passes into the pulmonary capillaries in order that it may be aërated. Whenever this process of aëration is suspended, a nervous signal is sent from the capillaries to the minute pulmonary arteries, enjoins their contraction, and then stops the blood-stream. The purpose of the arterial spasm is to prevent the flow of blood into the pulmonary capillaries upon the cessation of the function of respiration. If the stopcock of a gas-burner could be made self-acting, so as to maintain at all times a constant and exact relation between the supply of fuel and the rate of combustion, and so as, further, to turn off the gas and prevent its escape when, by any accident, the flame is extinguished, that would represent with sufficient accuracy the working of the living arterial stopcocks in the lungs." The other addition is an account of the phenomena which follow plugging of the pulmonary artery by embolism, or thrombosis. "It is remarkable," Sir Thomas observes, "that an impediment to the supply of blood to the lungs through the pulmonary artery causes dyspnœa as urgent as an impediment to the supply of air to the lungs through the air-passages. Physiologically, this is explicable by the want, common to both cases, of aërated blood by the system; expressing itself in the chemical cry from the famishing tissues for the indispensable oxygen. What is peculiar to this mode of dying is that the circulation is stopped, yet not by asthenia; and the function of respiration is suspended, yet not by apnœa. Death does really, in this case, begin in the lungs, and the mode of dying may, with literal accuracy, be called death by *pulmonary asphyxia*, or pulselessness in the pulmonary artery."

In the next lecture, on the "Causes of Death," Professor Huxley's physiological explanation of the immunity from harm to those who are subject to or court excessively high temperatures is given; and, in connexion with the effects of cold on the human body, mention is made of the results (observed by Dr. Richardson) of diminishing, in birds, the temperature of the brain by means of ether spray. And in discussing hereditary tendency to disease, an illustration is drawn from Dr. Arthur Mitchell, Deputy Commissioner in Lunacy for Scotland, and notice is taken of Mr. Darwin's views on transmission of acquired peculiarities. This must suffice to show how much care and labour have been bestowed on this edition of the work. We cannot, of course, pretend to go all through the lectures in this way, but must content ourselves with noticing a few more instances of careful addition and revision, and some of what we will venture to call the weak points.

(*To be continued.*)

FOREIGN CORRESPONDENCE.

AMERICA.

PHILADELPHIA, December 6.

THE Medical world on this side of the Atlantic is not at the present moment seriously agitated upon any question of general or vital importance. The Profession is liable to periodical exacerbations once a year, when representatives of various Medical societies and institutions throughout the country assemble together in a national convention; but there is really but little material to awaken a common interest even on such occasions. Sometimes with excessive ardour, and a good deal of unnecessary fermentation, a few zealous partisans of special measures and riders of favourite hobbies endeavour there to arouse a general enthusiasm in favour of their pet projects for reform in Medical instruction, for the recognition of woman's right to wield the scalpel, etc.; but the temporary excitement soon subsides, and when the delegates return to their homes, which may be a thousand or two of miles away, they carry back with them many agreeable social reminiscences, but very few permanently fixed and practical additions to their general store of Medical knowledge. Though some of the rust and roughness may be worn away by this opportunity of unwonted contact with the outer world, yet when they resume at home their Professional avocations—many of them in out-of-the-way country places, where, with excessive labour by day and night, they toil away their lives in drudgery—they have but little time or disposition to concern themselves with topics extraneous to their immediate routine duties. If they practise these with fidelity to principle, and to the requirements of the Professional code of ethics, they are content; but it must be a mighty cause that simultaneously affects the whole fabric of Medical science in this widespread country. The woman question is one of the latest and best illustrations of this fact. Although periodically revived in several State societies, and agitated in the National Association, there are hundreds—perhaps thousands—of Physicians in the United States, scattered through villages and small towns, who never go to conventions, but depend for novelties in information on the columns of the single Medical journal to which they subscribe, who have not been in the slightest degree affected by all the discussion of the few years past upon the admission of women to the rights and privileges of Practitioners. Although old women abound in every village here—as they do in every village all over the world—whose self-estimated knowledge and experience are greater than are possessed by the best-informed in the Profession (and doubtless there are many men in the latter everywhere who are, in mental calibre, but little in advance of these meddlesome beldames), still the modern woman-Doctor—made such by education and practical information—has hardly yet come in direct competition or collision in the smaller towns with other Practitioners of Medicine. There is not, therefore, among the latter the same tenacity of opposition—for it is not at once brought home to them as a disturbing element; and hence we find in all State Medical conventions the country delegates much less sensitive than those from the cities to the adoption of measures which vitally affect the interests of the latter especially.

A notable feature in the American character is the rapidity and facility with which, after violent agitation, a perfect calm is restored in the public mind. This applies to questions pertinent to the Medical Profession, as well as to those affecting the moral, political, and physical health of the community. There is always danger, after such a lull, that the immediate cause of perturbation may soon be forgotten, and remain uncorrected until the recurrence of similar wrongs again excites the popular sympathy or indignation. Not long since, a prominent abortionist of New York, who, after all, is only a typical specimen of the irregularity and criminality secretly practised by scores of others in our larger cities, was punished for the murder of a young girl on whom he had produced, by instrumental interference, metro-peritonitis. The crime was first detected, you may remember, by his failure to get rid of the remains at the railroad-station in the shape of a trunkful of luggage. Had his punishment been death, instead of imprisonment for a term of years, the moral effect upon the rest of his vile class would have been potent for good, and fatal to their terrible practice. But the trial ones over, and the public attention diverted to other channels of guilt, or to other sensations of the hour, no thought of the possible horrors daily perpetrated now disturbs the calm current of business or pleasure; police vigilance sleeps, and the publishers of the objectionable invitations to deceived and unfortunate victims, which formerly occupied conspicuous positions in papers of large circulation and influence, are once more relieved from the immediate fear of condemnation and punishment. We may therefore expect, at no very distant day, to have the thin verbal disguise which now vainly conceals the wickedness beneath to be wholly removed, and the old familiar advertisements of prospective infamy again openly offending the eyes of virtue and intelligence. These bane and pests of society afflict every community, but New York is confessedly the field in which they have held high carnival. It is to be hoped that in our larger towns the good sense and energy of all refined and influential people, who are willing to handle this delicate subject, may lead to the most vigorous crusade against all such malefactors.

Small-pox has recently been much more prevalent in this section of the country than for many years previously. For several weeks past its mortuary statistics have been gradually becoming more and more interesting. The number of deaths from this disease in Philadelphia during the past week was 153, which, though apparently a trifling matter in a population of 750,000, is of sufficient numerical importance to create a general uneasiness, mainly on account of the steady weekly increase of mortality. New York is anticipating a visit from it, but thus far only a few cases have been reported. If it should once become firmly seated there, in localities which respond but feebly to the exigencies of sanitary laws, its ravages will doubtless affect seriously a class of the community which modern philosophers and scientists are in the habit of regarding as the "surplus population." They may learn a lesson from our own local experience, however, that in its visitation here it has made but little distinction as to social lines. It is amusing to note the various suggestions offered by the ignorant and unlearned to obviate variolous influences, or to render their incursions non-effective. From carbolic acid amulets to simple brown sugar seems a long step, which the enthusiast in small-pox curatives may take confidently, and pick up abundant material on the way for the relief of the disease, if he can but once repose his confidence in all the popular contributions to the small-pox literature of the times. These are, of course, generally passed by as the idle breath of the hour; but vaccination and revaccination have become the prevailing fashion. It has been remarked that the usual salutation among friends is now, "How is your arm?" but this is somewhat of an exaggeration. It is amusing, however, to note the manner in which the faces of fellow-passengers in our city railway-cars and of pedestrians on the street are scanned to detect the now familiar marks of the disease; how carefully its subjects are avoided; and how even those with more than a legitimate allowance of innocent papulæ are looked upon with suspicion. When we reflect upon the treatment of the disease in previous centuries, we feel grateful at the prospect of receiving the more gentle, soothing, and unofficious medication of the present day, and not being compelled, with our ancestors of the fifteenth century, to swallow the "attenuating and sudorific things" spoken of by an old writer as included in a single decoction prescribed in the early stages of this disease—viz., "liquorice, mallows, borrage, politrichium, maidenhair, sweet prunes, sunchus, woodbine or honeysuckle flowers, seeds of cucumber, flowers of corn-poppies, and bark of beanstalks." Such as were "more gross and pituitous" fared no better, for they were obliged to drink a decoction in whey of goat's milk made up of "brans, wheat, beans, liquorice, hyssop, juniper wood, white tartar, barley, sunchus, roots of white lilies, grass, scabions, sweet prunes, etc."

The strong arm of the law is sometimes interposed rather unpleasantly in the affairs of Medical men. Its aid is not judiciously evoked or gratefully appreciated, especially when it is hastily appealed to in anticipation of the action of a society against one of its own delinquent members. As a general rule, the inference would be fairly deducible, that the appellant, under such circumstances, afraid to incur the public odium, was willing to take refuge in any means, however unusual or unwarranted, to escape the penalty. Whether this was the real motive power in a case which excited a good deal of discussion in New York a few weeks since, I cannot say; but the honourable gentlemen constituting the Comitia Minora of the New York County Medical Society, prominent among whom were Drs. Austin Flint and L. A. Sayre, who were immediately affected by this Medico-legal entanglement, must have been very indignant, and not a little sensitive, at the interference of a learned judge in that city in the form of an injunction restraining them from taking any further action against a recusant member. This is probably the first case of the kind

in the history of our Medical Societies; the Court having here intervened previously to the report of the Comitia, before it was known what was the nature of the verdict, whether favourable or otherwise. The member had been charged with a violation of the code of ethics, and it was clearly the duty of the Society to investigate the matter thoroughly.

The Committee of prominent Physicians and Pharmaceutists appointed in May, 1870, by the National Convention for the Revision of the Pharmacopœia are actively engaged in the prosecution of their duties, and expect to publish the results of their labours next spring. Of course, in these decennial intervals, many new remedies and novel modes of preparation must suggest themselves; but it is to be hoped that more than even the usual amount of skill and common sense may be called into requisition by these gentleman, so that we may be able to offer to the world at large a valuable contribution to literature. It is desirable that there should always be every practicable uniformity in the Pharmacopœias of Great Britain and the United States; but each country seems to be jealous of the innovations of the other. I may not be wholly correct in my assumptions, but I am disposed to think that some of the framers of these official guides have a greater satisfaction in striking out into paths of originality than in blindly following the changes suggested by even the best informed pharmaceutists and chemists of other lands. One thing must be borne in mind, however, and that is the absolute necessity in a country like our own of adapting a Pharmacopœia, within justifiable limits, to the habits, requirements, and local peculiarities of climate and population of those who are to use it. The great danger is that the Materia Medica list, which forms an important portion of it, may be expanded, rather than contracted, under the views entertained by the majority of those present at the Convention. It seems unfortunate that such should be the case at a time when the Medical Profession is already suffering from an *embarras du richesses*, and would gladly part with several score of useless drugs which help to swell out the long list of remedies. If the Pharmacopœia could once be reduced, however, within the limits desirable for mere practical routine purposes, it would constitute a volume mainly remarkable for its insignificance; and it is therefore, perhaps, just as well that it should contain all the remedial agents which may at the present time or in the future be found convenient or useful for the Practitioner. These remarks apply quite as forcibly to the Pharmacopœias of other nations as to our own. May your own Professional men, who speak one common language with those of this country, never be placed in the same straits as those of Switzerland, who, in addition to the erudite Latin, are obliged to issue their Pharmacopœia in three other languages—French, German, and Italian—to adapt it to the understanding of the variety of nationalities represented within its borders.

The virtues of the new reputed cancer cure, condurango, will hardly have been fairly tested in time for its insertion in the new edition of the work just referred to. It attained a temporary notoriety a few months since, from the fact that a quantity of it had been sent from South America to our Government at Washington, to be experimented on by naval and other Surgeons in syphilis and cancer, in consequence of the local reputation it had acquired in regions in which it grew, when administered in these diseases. Soon after this, a few cases of cancer were reported as improved, or cured, I forget which, by a Physician of Washington, who had been quite prominent in the Medical history of our late civil war. Thus far, very little corroboratory testimony has been published in favour of its efficacy, and the impression is gaining ground that this has been greatly overrated. Submitted to analysis, it was found to contain nothing in its composition either wonderful or therapeutically valuable. It sells now at only 2 per cent. of its original cost, which was, I believe, 100 dollars a pound, and the early purchasers are naturally sensitive at this change in its pecuniary valuation. One of them has recently found that he had not even bought the genuine article.

"The Irish Elements."—We can have no desire to depreciate our Medical friends on the other side of the Irish Channel—far from it. We allude to "the Irish element" in the united services merely with a view of showing that it preponderates; we shall not inquire into the cause. "According to statistics," says one of our contemporaries, "since the opening of Queen's College, Galway, in 1850, forty Army Medical, seventeen Naval Medical appointments have been made from this College alone."

GENERAL CORRESPONDENCE.

ON THE MEDICAL DECLARATION RESPECTING ALCOHOL.

Letter from Dr. Moxon.

[To the Editor of the Medical Times and Gazette.]

Sir,—The document bearing the above title has such a weight of great names subscribed to it as must insure for it everywhere respectful consideration.

There are, however, certain aspects of it which, one fears, its authors did not deliberately stay to observe. May I show one or two of these aspects?

The protest purports to be an address by (I did not count) very distinguished named, and 230 also distinguished but unnamed, Medical authorities, in which the "inconsiderate prescription" of alcoholic liquors by "Medical men" is declared to be a considerable cause of drunkenness.

Sir, there is now a general feeling that the supply of liquor is too free, and that this is the reason why drunkenness prevails so deplorably. If we remember how unlikely legislative assemblies are to act upon divergent views of any subject before them, we may well ask this question: "Now that we have the Legislature ready to curb the grocer and gin-dealer, why does this imposing body of Doctors step in between, and say to us, 'No! look here at our people! Here are the culprits; your Medical men have incited you. It is done on inconsiderate Medical advice'?" Did these gentlemen see that thus to put the family Doctor in competition with the gin-palace and the grocer as creators of diffused insobriety, if it be complimentary to the Profession, will nevertheless tend to divert public attention from those who were very near having a proper share of restraint laid upon them? What if we find the Legislature staving off its troubles with the grocer, while the family Doctor is exorcised by the incantations of his superiors?

"Look!" they will say; "these people accuse themselves of it; who can doubt their insidious, irresistible influence?—it is throughout every house in the land. Let these inconsiderate prescribers cease persuading the people. We well remember that we had good grounds for creating the family gin-grocer, and created he shall be." Two years, at least, are required for this experiment of the penitent Doctors.

If the Doctors do by inconsiderate advice create drunkenness, then it is as well they should confess it—or, at least, quietly amend their ways. This document will be accepted as a confession. The public will say, "The Doctors are confessing!—let us listen!" Now, confession is proverbially a good thing for our responsible part, or soul—that is, however, if it be *frank*, and if it be *directed to the right quarter*.

But look at this document. It says, "The acts of Doctors lead to drunkenness in patients." Now, this might be said in two ways. Either the Doctors might say, "Good people, we, the Medical Profession, have just risen to a general sense of a misdirection in our advice to you, which has been covertly producing very ill issues on your part"—this would honestly take the blame to themselves; or they might say, "You are no sooner set free to take a moderate quantity of wine than you go on a deal too far, to our very great discredit"—this would lay the blame on the public, for their wrong apprehension. But the present affair is neither a frank confession of the Doctors, nor an admonition to the public of their excesses. It is a sort of vicarious confession of everybody for everybody else. It reminds one of that bitter complaint a young lady made to me the other day of her delirious sister—"She confessed all *my* sins." Truly, Sir, the tendency to confess other people's sins and weaknesses appears deeply rooted in human nature, especially in those extra-individual parts of our nature that constitute us gregarious. We can always easily be got together for a mutual confession of each other's sins. Look at the document, and trace it down. It begins with the very distinguished men with names, etc., who say, "We believe Medical men inconsiderately prescribe"; then it comes down to the 230 less distinguished men without names, etc., who repeat, "We believe Medical men inconsiderately prescribe." Now pray, Sir, why should not every one of us totally undistinguished ones go on and say, "So do we in ours, too; we believe Medical men inconsiderately prescribe"—each set of us thus catching the stone thrown at us from above, until the whole becomes a game of "pass it round."

I believe, Sir, that this will, however wrongly, be regarded as in the beginning a disingenuous confession, which, begun by

one confessing for his neighbour, will go on raising a reverberation of disingenuous echoes that will die off in *vos et præterea nihil*.

But stay; I see we may be going a little too far. Look at it again. Yes. No, it need not be a confession; perhaps it is not a confession. Yes, it may be quite a different thing—an accusation! Those whose names are signed below may be claiming that they are free from blame in their advice, so that they may turn round and charge their brethren with it!

But it has lately been a very generally prevalent belief that the leading members of our Profession are in favour of sustaining the strength of patients by a supporting, and perhaps stimulating, plan of treatment. Surely the leading members of the Profession have, in their places as teachers, been the very means of spreading this kind of practice.

Now, are those, who have signed, the leading members in question, or are they some other body? Here is a dilemma. For, if these are the leaders and teachers who have been the means of inducing in their followers and pupils the practice they condemn, and if their views have revolved, so that they now think differently of stimulants, surely it is scarcely fair and dignified on their part to turn round and accuse their former pupils in terms that claim for themselves a purer practice (at least, if they don't, it might be more plainly said).

But, if these are not to be regarded as the teachers and leaders—if they do not include all the higher thought in the Profession—then the public, after it has got over the first impression of Medical unanimity which the title "*Medical Declaration*" assumes, will ask, "If these are but a moiety of the leaders, why do they cry thus upon all the followers? why not deal fairly with the camp on their own and the other side, and cry their cry as against a camp of opponents led by equals?" For, indeed, the Declaration by no means purports to come from a division only of the Medical world against another division. The public will say, "If these are the teachers, they induced the practice; why do they turn and accuse it in their followers? and why should we trust these second thoughts? Are repentants such trustworthy guides? But if these are not the teachers, then, after all, it is only the old story of a difference among the Doctors. But why do part speak for all, when the other part (who did teach the stimulation) would, for all we know, oppose them?"

Surely, Sir, if a declaration was required—and I think a declaration might do real service—the proper course would have been for the Medical Profession to have set forth their convictions before the public for the benefit of society. Without confessing for each other, or accusing each other, or doing a nondescript something, neither the one nor the other, which one might call admonishing at each other, the Profession might have risen and said, "Good people, we have lately been informed, and we believe that our well-meant advice is misconstrued by certain among you to your serious detriment. It has been our practice to commend to you a little wine for the stomach's sake, but you go on to take a little more for the sake of the heart. We urge you, good people, to refrain from such injurious indulgence. Pray understand that any pleasurable results of wine on the feelings are not even allowed to influence us in advising you, but are superinduced in spite of our wishes, which are better typified to you in the taste of bottled physic. Remember, each one of you, that whoever drinks wine, beer, or spirits to keep up to his work is in reality sinking capital to pay interest."

These need not be the exact words. I would rather leave the composition to the gentleman who drew up the Declaration. But I believe, if something of such a meaning as the above were placed before the Profession, all would be glad to sign; for, though I believe the numerical result is insignificant, there perhaps are instances of persons taking advantage of a liberty of stimulating allowed them by Medical men.

I am, &c.,

W. Moxon, M.D., F.R.C.P.

BLOODLETTING IN CONGESTIONS AFTER FEVER.

Letter from Dr. J. B. Wilmot.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been led to send you the details of the following case, partly from reading in your number of the 23rd ult. the following extract from the Registrar-General's weekly return of deaths. I trust it will not be inferred that I presume for a moment to question the treatment that may have been adopted in these fatal cases:—

"Aged 38; typhoid fever, ten days; congestion of lungs, four days. Aged 53; typhoid fever, thirteen days; pneumonia, four days. Aged 37; typhoid fever and bronchitis, thirteen days. Aged 3; pneumonia and enteric fever. Aged 7; typhoid fever, three weeks; congestion of lungs, eight days. All people in a well-to-do class of life."

K., aged 42, a stout athletic man, a village grocer and tenant-farmer of 200 acres, was attacked by scarlet fever, communicated by his children, one of whom had imported it from London.

About twelve days after his attack—viz., on July 28, 1871—the Surgeon in attendance asked me to accompany him, as the man was desperately ill, and the family wished me to see him. His state was deemed so precarious that his will had been prepared on the previous day, and the lawyer was to attend with it this day and get it signed and witnessed if possible.

For five nights he had been delirious, in the day-time excited, rambling, and often incoherent, but yesterday had been sufficiently composed to furnish the lawyer with the necessary instructions for drawing up the will.

We found him on his back, with a somewhat wild expression and anxious agitated countenance, but able to reply rationally though hurriedly to questions. His breathing was short and hurried, his skin cool and dry. There was desquamation of the hands and wrists, and a purplish hue of the extremities. The tongue and fauces were quite clean and moist; the latter exhibited no traces of the cynanche which had accompanied the earlier stage of the attack. In fact, as regards the scarlet fever, he might be said to be convalescent. His pulse small, frequent, unsteady; the heart's action tumultuous, struggling. No thirst, no headache, nor could he complain of the slightest pain in any region of the body. He had no cough; could turn himself in bed on either side without the least difficulty, but preferred the supine position. Urine clear, in fair quantity; the bowels had been sufficiently opened. He was living on beef-tea and brandy.

On setting him up, and listening to the respiration, we found that the right lung was impervious to air, and that this side was quite dull on percussion, while on the other side the resonance was distinct and the respiration puerile. Here, then, was the mischief: congestion of one lung, through which the heart was struggling to force the blood, while the venous blood was kept back in the more remote vessels. My colleague could not doubt the fact.

Having admitted the lawyer to read the will, and satisfied ourselves that it was perfectly understood—that the man was what I believe the law terms "of disposing mind"—he signed it, and we attested.

It was then agreed that the only means of relieving him was by the abstraction of blood, and, as the readiest mode of effecting this, as well as of regulating the quantity, a vein was opened, first in one arm, then in the other; but whether owing to the viscosity of the blood, or to the clogged and powerless condition of the right heart, or to the want of the *vis a tergo*, not a drop could we get, either by stroking the arms or plunging them into hot water. Twelve leeches were therefore sent for, to be put upon the side, with directions to encourage the bleeding by poultices and flannels. The brandy was discontinued, and a saline draught prescribed, with one-sixth of a grain of tartar emetic every three hours.

On the following day, after twenty hours, I found him cheerful—having passed a night of quiet sleep, the first for six nights. The purple hue of limbs had disappeared, the pulse was soft and steady, the heart's action restored to its equilibrium. He continued the tartar emetic for twenty-four hours longer, and made a rapid recovery. I saw him no more until three weeks after, when, passing through the hamlet, I found him busy in his shop.

Of the four children, one died, who seems to have had cerebral symptoms when the specific fever had abated; another escaped with a deposit of matter on the eyelid and surrounding cellular tissue, relieved by lancing.

I do not put forward this case as anything unusual, nor the recovery as remarkable. I could furnish many more instances of successful interference of this nature; but this would be tedious, and might savour of egotism. I would not willingly publish the cases of those in whom the moment for such interference had expired.

The sequelæ of these distinctive fevers—variola, scarlatina, measles, typhoid, etc., have long been looked upon as important and dangerous. Local congestion is almost invariably the cause, followed by secondary fever, running into inflammation—disintegration. Sydenham bled successfully in the diarrhœa following measles. I should be sorry to follow Sydenham

blindly in his practice; but it appears to me that in so marked a case of congestion as the above it would be as rational to urge the heart by stimulants as to attempt to relieve a blockade of carriages at Temple-bar by urging on the vehicles in the rear. Some of the ill-fed, half-rotten creatures in the back slums of populous cities may perhaps require this ramming process, but not so the well-conditioned class, and more especially those who breathe a purer air.

I was one of those who signed the "Declaration respecting Alcohol,"—intended for the Medical journals only—from a conviction that a hint of the kind from some of the most eminent and experienced was really required by many in the Profession. We are all too prone to fall into routine practice, and I believe that the champagne-and-brandy treatment is often carried out indiscriminately—too early and too far.

With this portion of the Declaration I would have limited my concurrence, had it been possible, for I regard the greater part of the remainder as mere cobwebs to catch flies. I suppose everyone would gladly support *wise* legislation—a wise proviso which pledges us to nothing, or, at the most, to an unknown quantity. I am, &c., J. B. Wilmot, M.D.

Tunbridge Wells, December 27.

PHTHISIS IN MELBOURNE.

Letter from Mr. W. Thomson.

[To the Editor of the Medical Times and Gazette.]

Sir,—By last mail from this, a month ago, you would receive a short note from me, accompanied by a *Melbourne Argus*, and the Registrar's monthly report of the vital statistics, all containing facts to enable you to form for yourself an unbiassed opinion as to the accuracy of my former statements respecting the prevalence of phthisis in this place, and made necessary by the doubt you naturally were left in by the reiterated denials of my accuracy by the *Australian Medical Journal*.

To show you that the return for the month of July last was in no way exceptional, I again send you the report for the succeeding month of August, by which you will perceive that the total deaths in Melbourne and suburbs from all causes were 275, and out of that number there were from phthisis 49, being 17·82 per cent. The 275 deaths give 1·34 to every 1000 of the population living. This is a small mortality, being only at the rate of about 16 per 1000 annually, making the ratio of phthisis seem relatively high. Yet, if the total deaths had amounted to 395, which would have raised the death-rate for the month to the twelfth part of the London yearly average—viz., 23 per 1000 (*and it has often been as high here as* 26 *per* 1000)—the phthisis ratio would still show 12·45 per cent., or exactly the yearly London average.

The 49 deaths from phthisis are in the proportion of ·24 in the 1000 of the living population of Melbourne and suburbs, or at the rate of 2·88 per 1000 annually. The death-rate from phthisis in England and Wales is about 2·82 per 1000 living, or not quite so high as here. The 49 deaths which occurred from phthisis in Melbourne and suburbs, during the month of August, will probably be found only a little over the average of all the months of the year, when the whole come to be examined; but, much or little, it will in due time be fairly stated.

The fluctuations of the other causes of death do not appear to affect phthisis, which continues steadily at an almost uniform rate—or fixed quantity, so to speak—and indicating the steady persistency of its causes.

It cannot be longer held, as any explanation of this high mortality from that one disease, that persons suffering from it come to town to die in the Hospitals; for, of the whole number of deaths—viz., 49—only 14 died in the Melbourne Hospital, as will be found on reference to the *Argus's* last summary.

I am, &c.,

South Yarra, October 10, 1871. William Thomson.

PARAFFINED PAPER AS A DRESSING.

Letter from Dr. W. R. McNab.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette*, of Saturday (p. 759), I notice that waxed paper has been recommended as a cheap and light covering for dressings. As paraffined paper is superior to waxed paper for photographic purposes, I believe it would also answer admirably for Surgical use. Thin paper is saturated with melted paraffin, while the excess is removed by placing the sheet between blotting-paper and passing a hot smoothing-iron over it. As it can be cheaply and easily prepared I think it would be of great use in Surgery.

I am, &c., W. R. McNab, M.D.

Royal Agricultural College, Cirencester, Dec. 19.

THE LATE WALTER COOPER DENDY.

Letter from Mr. Jabez Hogg.

[To the Editor of the Medical Times and Gazette.]

Sir,—You will perhaps permit me to add a word or two on another point of interest in the life of our departed friend, Walter Cooper Dendy, altogether omitted in the very interesting notice of him by "J. F. C.," and which may serve to explain the somewhat recluse life he appears to have led during later years. About the time he was missed by his friends, and his attendances at the Medical Society of London entirely ceased, he suffered from frequent attacks of what he described to me as ophthalmia. Four or five years later he was seated in the reading-room of the British Museum, when he discovered, to his horror, that the sight of the right eye was gone. In great alarm he called upon me, and he was very nervous and a good deal depressed. A careful ophthalmoscopic examination disclosed a considerable clot over the foramen centrale; several smaller hæmorrhagic patches were distributed around the inner side of the peripheral portion of the disc. The fundus presented generally a dull-reddish, congested appearance, and sight was so nearly lost that he could scarcely distinguish the daylight. The internal rectus was paralysed, which produced a considerable convergent squint. The left eye was also congested, but, as the capsule of the lens was slightly striated, the fundus presented a hazy appearance, probably due to slight lenticular opacity. He could, however, on forcibly closing the right eye, read ordinary-sized print. In consequence of the paralysis of the rectus internus, he had difficulty and pain in keeping either eye directed to any object for more than a few moments at a time. The urgent symptoms were prescribed for, and in a day or two after I saw him again, in consultation with Mr. Canton. We strongly urged upon him, in conjunction with treatment, immediate and perfect rest. Dendy at once relinquished work of all kind, and in the course of three months I had the satisfaction of seeing the clots disappear and the sight of the eye return. I again begged of him to abandon Professional work, and seek rest and health in some of those beautiful "Islets of Britain," so admirably depicted by his skilful pen and pencil. In about two years from this time he called upon me perfectly restored to health. I once more examined his eyes, and every trace of the old mischief had disappeared, and I believe, although he used eye-protectors—green goggles—almost up to the day of his death, his sight remained as good as that of most men of his age. I am, &c.,

Bedford-square, January 1. Jabez Hogg.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, December 6.

Dr. Braxton Hicks, F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Robert Bell, M.D.; Edward F. Brockman, M.R.C.S.; Thomas W. Evans, M.R.C.S.; Thomas C. McConkey, M.D.; John R. Morrison, L.R.C.P.; Frederick Martyn Rickard, M.R.C.S.; and Montague J. Sturges, M.D.

Dr. Aveling exhibited his Gynæcometer, which consists of a number of uterine sounds capable of being combined in various ways so as to form a hysterometer, a vaginometer, a pelvimeter, or a cliseometer. By its means the dimensions of tumours, and the angle caused by the deviation of the uterus from the vertical line, may be accurately ascertained and transferred to paper.

Dr. Alfred Meadows related a case of so-called Ventral or Abdominal Pregnancy. The patient was aged 22, and was admitted under his care into the Hospital for Women, suffering from what had been previously diagnosed as extra-uterine gestation. The abdomen was enlarged to at least the size of pregnancy at full term, though she had only arrived at about the sixth and a half month. The fœtal heart could be heard.

At the end of a week symptoms of collapse supervened from internal hæmorrhage, and the patient died. The fœtus was found free in the abdominal cavity, its only attachment being by the umbilical cord to a kind of placental mass formed at the fimbriated extremity of the Fallopian tube. Dr. Meadows advocated a more frequent resort to gastrotomy in such cases, not so much with a view of saving the child or of rescuing the patient when collapse had supervened, but in order to anticipate that collapse, and, in fact, to remove the growth as soon as we could arrive at a true diagnosis. He intimated that possibly, in cases such as the one he related, and perhaps in certain others, it might not be necessary to remove the placental mass, as this might gradually be absorbed by a slow physiological atrophy after that for which it existed was removed.

Dr. Protheroe Smith said there was no doubt in his mind about the propriety of performing gastrotomy in such cases, but a difficulty suggested itself in the previous diagnosis. Seeing that almost always cases of extra-uterine fœtation were fatal, he thought that even in the tubular form, if we could but improve our diagnosis so as to detect tubular pregnancy in its early stage, any operative interference which would afford the remotest prospect of life to the mother should be regarded as a duty.

Dr. Graily Hewitt believed that the operation of opening the abdomen ought to be performed when hæmorrhage from rupture of an extra-uterine pregnancy threatened to be fatal; but the great difficulty was the diagnosis. With reference to Dr. Meadows' proposal to treat such cases, apart from hæmorrhage, by such an operation, that was another matter, and, in considering it, it should be borne in mind that a certain proportion of supposed Fallopian pregnancies, as stated by Kussmaul, were really cases of pregnancy in a bicorned uterus, and such cases often did well if left to themselves.

Mr. Spencer Wells said that the propriety of operating when a women was dying of bleeding into the peritoneal cavity, or of operating when her life was not in immediate danger, although extra-uterine fœtation had been ascertained to exist, were very different questions. In the one case it might be the clear duty of the Surgeon to try and save a patient at any risk from inevitable death; in the other case he would give full weight to the consideration that a spontaneous termination of extra-uterine fœtation was not very uncommon. The structure might remain in the body harmless for many years, or pass away through the rectum, the vagina, or the abdominal wall. In a case reported by him the sac could not have been separated, though it would have been easy to remove the fœtus and treat the sac by drainage.

Dr. Greenhalgh gave brief particulars of seven cases of Extra-uterine Fœtation; three recoveries and four deaths. Of the former, in one the fœtal bones were discharged through an abscess in the left groin, in another a full-grown fœtus in an advanced stage of decomposition was extracted through an incision in the roof of the vagina, and in the third the liquor amnii was drawn off by a small trocar and canula. Dr. Greenhalgh said that, owing to the great fatality in such cases, he was of opinion that gastrotomy, as recommended by Dr. Meadows, might in many cases give the patient a better chance than by permitting the development of the fœtus and secundines to progress, leading to the risk of rupture and probably fatal internal hæmorrhage or other grave termination.

The President said his opinion, based on many cases, was that a number recovered from severe internal hæmorrhage, while a greater number gave no serious anxiety to the patient or Medical attendant. If, then, these cases were not so fatal, he should prefer not to interfere till urgent symptoms arose. But, generally, we do not see the patient or recognise the condition till serious symptoms arise, and then the patient is in such jeopardy that we feel afraid lest, by so serious an operation, we should take away the chance of life, which even then may be reckoned upon; so that practically the opportunity for such an operation as that suggested seldom presented itself. If anyone would look over the records of cases in the Society's *Transactions*, he would see the exceeding difficulty which would have attended the removal by gastrotomy—adhesions in all directions, enlargement of the vascular system into sinuses, the hæmorrhage resulting from the rupture of which would be excessively difficult to stop.

Dr. Playfair thought the difficulty of diagnosis at an early stage almost insuperable. In advanced cases of extra-uterine fœtation, from the first abdominal, it seemed to him that there was much less chance of gastrotomy being successful, owing to the extensive adhesions and matting together of surrounding parts. He thought this procedure a much more doubtful practice than in early cases of Fallopian gestation. (The specimen was referred to a Committee for a report.)

A Tumour, exhibited by Mr. Scott at the June meeting, which he had removed from a patient, who recovered, was reported upon.

Dr. Meadows and Mr. Scott believed that the growth was ovarian in its origin. Their report stated that it was almost entirely composed of hard dense fibrous tissue, but having in some places a distinctly reticulated appearance. There were visible under the microscope white fibrous tissue, some elongated fibre-cells, and a few rounded granular cells and granules. At one end of the tumour there was found a portion of the ovary, which contained the remains of a ruptured ovisac, half filled with blood. The ovary itself could not be separated from the tumour, and it seemed to the reporters possible that the tumour originated in the fibrous stroma of the ovary, and that its growth in one direction had not interfered with that portion of the ovary which still maintained its normal character and, so far as could be judged, performed its ordinary function. Mr. Spencer Wells, however, appended to the report, that there appeared to be a great number of non-striated muscular fibres in the growth, there being a number of broad-banded fibres not affected by acetic acid (as the surrounding bundles of fibrous tissue were), and containing long fusiform nuclei. The remains of the ovary seemed to him separable from the tumour; and while not denying the possibility of a tumour largely made up of non-striated muscular fibres originating in the ovary, he thought it must be excessively rare, as he had never seen one—whereas such tumours originating from the uterus are among the most common of morbid growths.

A report by Drs. Aveling and Edis, on the Malformed Fœtus exhibited at the last meeting, was read. The sac, which protruded from and communicated with the abdominal cavity, was as large as a fœtal head. It was formed chiefly by an expansion of the sheath of the umbilical cord, but partly, also, by the abdominal parietes, which were continued up around its base. The sac contained the liver, the spleen, the greater portion of the small intestines, and a small portion of the sigmoid flexure distended with meconium. No trace of a gall-bladder could be detected.

Dr. Eugene Goddard read the particulars of a successful case of Ovariotomy during Pregnancy. The patient was 29 years of age, and in 1870 was found to be the subject of an ovarian cyst, but as there were no urgent symptoms, the consideration of any Surgical treatment was deferred. She then became pregnant, and about the end of the second month of utero-gestation, Mr. Spencer Wells removed the ovarian cyst. Eleven and a half pints of fluid were withdrawn. The clamp was removed, and the bowels acted on the eighth day. Pregnancy went on uninterruptedly, and a living child was born at the full period. Dr. Goddard said that the compound nature of the cyst precluded the idea of tapping, as also did the risk of peritonitis, suppuration of the cyst, and the formation of adhesions. Premature labour was not induced, because the patient was already beginning to suffer constitutional disturbance from the double burden, and it was doubtful whether, by the time a viable child could be born, they would not have assumed such magnitude as to imperil the patient's safety; whereas, if abortion were induced, the child would be lost and the tumour would remain.

Dr. Ross related a case in which Mr. Wells had operated under more adverse circumstances, as the lady was much broken down in health at the time of the operation. A small ovarian tumour was diagnosed eighteen years ago. The patient subsequently got married, and Dr. Ross had attended her in four labours. In no instance was parturition attended with any serious difficulty. It was observed that during gestation the tumour appeared to become smaller. The tumour rapidly increased about a year ago, and Mr. Wells removed it successfully, the patient being about two months pregnant. Her labour is now daily expected.

Mr. Spencer Wells said that the existence of the cyst for eighteen years, and the presence in its walls of hard, bone-like masses, had led to the diagnosis of a dermoid tumour. Mr. Wells had performed ovariotomy four times during pregnancy, and all the patients had recovered.

Dr. Bantock said he was present at the operation, and thought great credit was due to Mr. Wells. The diagnosis of pregnancy at an early stage, complicated with an ovarian tumour, was not always easy. In considering the performance of the radical operation in these cases, one fact was worth any number of theoretical objections.

Mr. Scott referred to a case of ovariotomy which he had

recently performed. The patient had passed through two labours at term in safety. No beneficial results could have followed tapping, owing to the compound nature of the cyst and the viscidity of its contents. One danger of leaving the cyst to take its chance was exemplified in the same case—viz., the possible twisting of the pedicle by the gradual development of the impregnated uterus.

The PRESIDENT remarked that in the case of a compound cyst, if relief must be given, the choice lay between induction of labour and ovariotomy. Mr. Spencer Wells's cases showed that ovariotomy in these cases may be attended with satisfactory results.

Dr. BRUNTON detailed a case of Fibrous Enlargement of the Uterus, successfully treated by ergot of rye. The patient was unmarried, and aged 47. The uterus was enlarged to the size of a four months' pregnancy. It was pear-shaped, smooth, and hard. No sounds were heard on auscultation. For four years she had suffered from severe metrorrhagia. Dr. Graily Hewitt saw her in consultation, and agreed in the diagnosis which had been formed. Bromide of potash and other remedies were prescribed, but the hæmorrhage became so severe at the menstrual periods that large doses of ergot had to be given. The hæmorrhages were so severe as almost to prove fatal. Three months afterwards the tumour was evidently decreasing, and in six months it had wholly disappeared. During the half-year she took from forty to fifty ounces of ergot.

Dr. TILT said that, in addition to ordinary cases of uterine fibroid tumours, he had met with two cases in which the womb had become fibrous in its totality. In one case the uterus was about the size of an ostrich's egg. The internal and external exhibition of iodine was recommended, and he heard with surprise some months afterwards that the size and hardness of the uterus had diminished, and that the patient had ceased to suffer. The other patient was seen for the first time ten years ago, and was then 27 years of age. The uterus has gradually increased in size, and is now as large as at the seventh month of pregnancy. He could not believe that large doses of ergot would have prevented its increase.

Dr. PLAYFAIR said that this case could scarcely be claimed as one of the class he had spoken of in his paper "On the Spontaneous Absorption of Fibroid Tumours of the Uterus." This case seemed to be a case of general fibroid enlargement of the whole organ—a pathological condition with which he was not familiar. He did not state that fibroids were absorbed in consequence of Medical treatment, but that in exceptional cases fibroids disappeared spontaneously. The process was probably similar to the involution of the uterus after delivery.

OBITUARY.

NATHANIEL HECKFORD, L.R.C.P. EDIN., M.R.C.S., L.S.A.

THE subject of this brief memoir was the son of Captain N. Heckford, well known in nautical circles by his works on navigation. He was born in Calcutta on April 24, 1842, and studied at the principal school and college there (taking the first prize in every class) until he was 15, when he came to England, and was apprenticed to Dr. A. Banks, of Western House, Stratford, Essex, in 1857, and entered as a student at the London Hospital Medical College in 1859. His fellow-students will remember his tall, slender form, and handsome, intelligent features, and recall to mind his generous enthusiasm for the Hospital and College, and the singular aptitude he showed in acquiring all sorts of knowledge bearing on his Profession. His career as a Medical student was unusually brilliant. He took both the Hospital gold medals—viz., that for Medicine, as well as for Surgery—and filled in succession the offices of Resident Accoucheur, House-Surgeon, and Medical Registrar and Tutor, in all of which he displayed singular zeal and ability. Besides this, he frequently acted as Resident Medical Officer (House-Physician) to the London Hospital. After this he was for a short time House-Surgeon to the Metropolitan Free Hospital. In 1866 he returned to India, but only for a few weeks; but, before he did so, his fellow-students gave him a silver cup as a token of their esteem. In India several valuable appointments were offered him, but he declined them all, and soon returned in charge of troops. On January 28, 1867, he married the youngest daughter of the late William Goff, Esq. For a short time he had consulting-rooms in Broad-street-buildings, now demolished for the new station of the Great Eastern Railway. The East London Hospital for Children and Dispensary for Women, at Ratcliff-cross, was founded on January 28, 1868—the anniversary of their wedding-day—ten beds being opened in a warehouse, purchased by them for £2000, the freehold of which they gave to the Committee in July, 1870. It rapidly increased to forty beds, and is now about to be further enlarged and rebuilt on a site selected by Dr. Heckford. How he worked there, how they both worked there, has been described already by the graceful pen of the late Charles Dickens, who "dropped in," as he delighted to do, quite unexpectedly on the little Hospital, and found out for himself what a noble work was going on in those "back slums" of the far East of London. But those who knew him before were not anyway surprised. They remembered what enthusiasm and skill he had displayed when assisting his friend and fellow-student, Dr. Bathurst Woodman, in taking charge of the cholera wards of the newly opened Limehouse District Cholera Hospital at Wapping. One of that noble band of ladies—some Sisters of Mercy in name, but all in fact—who contributed so much to its success, used to say that she thought Dr. Heckford never slept! Alas! he sleeps now. He was a good diagnoser, and a brilliant operator, and performed most of the capital operations at his little Hospital. He revived the operation of paracentesis capitis, with gratifying though partial success. He was a member of the Pathological and Obstetrical Societies, and secretary of the Beaumont Medical Society. When overwork brought on the fatal pulmonary disease to which he ultimately succumbed, he made two brief visits to Italy—too brief, alas! to do him good, but he would not remain longer absent from work. His death took place on December 14, 1871, and he was interred in the family vault of the Goffs, at Woking Cemetery, on the 19th ult. It is difficult to collect all his publications, as he was utterly careless of these children of his pen. Numerous papers in the Indian and English Medical journals attest his powers of clinical observation. Besides these, he wrote a paper on "Acute Rheumatism," in one of the early numbers of the *Medical Mirror*; also (jointly with Dr. Woodman) a "Report of the Cholera Hospital at Wapping," in the third volume of the London Hospital Reports. Papers by him, on "Still-birth, with Post-mortem Observations" (London Hospital Reports, vol. i., p. 237); and another "On Circumcision as a Remedial Measure in certain cases of Epilepsy and Chorea" (*Ibid*, vol. ii., p. 58); besides some in the Obstetrical Society's *Transactions* (vols. x. and xi.)

It is characteristic of the man, that he gave the fees he took in private practice to the East London Hospital, as he had an almost insuperable objection to practising his Profession for what he used to call "filthy lucre."

PATRICK MILLER, M.D. EDIN., F.R.S. EDIN.

WE have to record the death of Dr. Miller, of The Grove, Exeter, at the advanced age of 90 years. He was senior magistrate of Exeter. He took an active part in the formation of the Bristol and Exeter Railway, and was for many years a member of the directory of that Company, and also of the South Devon Railway. He was a Physician to the Devon and Exeter Hospital, and, when he retired from the active duties of the office, was appointed Honorary Physician. He was a fellow-student with Lord Palmerston under the celebrated Dugald Stuart, at Edinburgh, who was Dr. Miller's uncle. Dr. Miller was honoured with the friendship of Lord Palmerston through life. He presented to the University of Edinburgh, a few years since, a marble bust of his illustrious relative, for which he received the warm thanks of that learned body. Dr. Miller for a long time took an active part in promoting the charitable institutions and the social improvement of the people. He was universally respected.

HENRY M. GRACE, M.R.C.S.,

DIED at his residence, Downend, near Bristol, on the 23rd ult., after a few days' illness, from an attack of inflammation of the lungs, at the age of 63. He was Surgeon to the Royal Gloucestershire Hussars, and was the oldest officer in the regiment, the present Duke of Beaufort's father having given him the appointment in 1841. He held many public appointments. He was a good Surgeon, and very successful in all he undertook. Being a thorough good sportsman, he was passionately fond of hunting. He was a good cricketer, and himself kept up the West Gloucestershire Cricket Club for a great many years, and founded the Gloucestershire County Club. He has left five sons, three of whom he has established in the Profession; the two younger, well known to all lovers of cricket, have almost completed their studies, and will also become members

of the Profession. He has left a widow and four daughters, two of whom are married. He will be succeeded in his practice by Mr. Skelton, who was about to marry the eldest daughter.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 28, 1871 :—

Bower, Augustus Edward, Nantwich.
Edwards, John Ellis, Aberdare.

The following gentlemen also on the same day passed their first Professional examination :—

Charlesworth, Henry, Middlesex Hospital.
Cooke, John, London Hospital.
Whately, George Frederick, Middlesex Hospital.
Wright, John Frederick, Middlesex Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAGSHAWE, F., A.M. Cantab, M.D., etc.—Assistant-Physician to the East Sussex, Hastings, and St. Leonard's Infirmary.

BRAYE, HAROWICK HUBERT, M.R.C.S. Eng., L.S.A.—Medical Officer for the Fourth District of the Whitechapel Union, *vice* Dr. E. Richardson, deceased.

CROCKER, JAMES, M.R.C.S.E. and L.S.A.—Medical Officer for the Bingley District of the Keighley Union, Yorkshire.

COUPLAND, SIDNEY, M.B., M.R.C.S.—Resident Physician's Assistant at Middlesex Hospital.

JACKSON, SAMUEL, L.R.C.P. Edin., M.R.C.S.E., and L.S.A.—Medical Officer for the Workhouse of the Oldham Union.

LEDGARD, WILLIAM EDWARD, M.R.C.S.E. and L.R.C.P. Edin.—Medical Officer for the Third District of the Ripon Union.

POLLARD, FREDERICK, M.D. Lond.—Medical Registrar to St. Thomas's Hospital.

RIX, W. K., M.R.C.S. Eng.—Resident Medical Superintendent to the Bradford (New) Fever Hospital.

REID, JOHN, L.R.C.P. Edin. and L.F.P.S. Glas.—Medical Officer, Public Vaccinator, and Medical Officer of Health for the Parish of Balfour, Stirlingshire, *vice* Dr. W. Anderson, R.N., resigned.

RENWICK, WILLIAM, L.R.C.P. Edin., M.R.C.S.E., and L.S.A.—Resident-Surgeon to the Kilburn, Maida-vale, and St. John's-wood Dispensary, *vice* Fletcher Beach, M.R.C.S.E., L.S.A , appointed to the Hospital for Sick Children, Great Ormond-street.

ROBINSON, ANDREW, L.R.C.P. Edin., M.R.C.S.E.—Medical Officer and Public Vaccinator for the Nuneaton District of the Nuneaton Union.

RUGG, B. ALFRED, L.R.C.P. and M.R.C.S.E.—Assistant-Medical Officer to the Asylum for Idiots.

TROLLOPE, T., M.D. CANTAB., L.M., M.B., etc.—Physician to the East Sussex, Hastings, and St. Leonard's Infirmary, *vice* Dr. Dunne, resigned.

WEST, JOHN GILBY 'UVEDALE, M.R.C.S. Eng., L.R.C.P. Lond.—Resident Medical Officer at the North Staffordshire Infirmary.

BIRTHS.

BROWNE.—On December 27, the wife of Dr. Thos. Browne, H.M. Dockyard, Devonport, of a daughter.

JEPSON.—On December 26, at the residence of her father, W. S. Burton, Esq., Inner-circle, Regent's-park, the wife of Octavius Jepson, M.D., Medical Superintendent, City of London Lunatic Asylum, Stone, near Dartford, of a daughter, prematurely.

LIVINGSTONE.—On December 11, at St. John, New Brunswick, the wife of R. Hamilton Livingstone, M.D. Edin., of a son.

MIDDLEMIST.—On December 27, at 10, Bedford-place, Russell-square, the wife of Robert Percy Middlemist, M.R.C.S., L.R.C.P. Lond., of a son.

NICHOL.—On December 27, at Denmark-hill, the wife of R. Nichol, M.D., of a daughter.

MARRIAGE.

DICK—ELLIOT.—On November 22, at Dharwar, Bombay, Dr. Forbes Dick, Royal Artillery, to Constance, daughter of T. Elliot, Esq., The Green, Bishopwearmouth, Durham.

DEATHS.

ALEXANDER, LUCY, the beloved wife of John Alexander, Esq., and only daughter of the late A. S. Allen, M.D., R.N., at 16, Eton-road, Hav rstock-hill, N.W., on January 1, aged 29.

ANDERSON, GEORGINA GRAHAM, widow of the late Dr. A. Anderson, H.M.'s 92nd Highlanders, at 40, Minto-street, Edinburgh, on December 31, aged 74.

BAKER, JAMES, M.D., late of 66, New North-road, N., and St. Margaret's, Herts, at Cambridge House, Summerhill-road, Tottenham, on December 25, in his 72nd year.

DICKINSON, LAURA, the wife of W. H. Dickinson, M.D., at 11, Chesterfield-street, Mayfair, on December 29.

FERNERLEY, CHARLES, Surgeon Royal South Lincoln Militia, at Grantham, on December 23, aged 61.

HALE, MARY EUGENIA, the beloved child of Robert Douglas Hale, M.D., at 16, Queen Anne-street, Cavendish-square, on December 19, aged 18.

HECKFORD, NATHANIEL, M.R.C.S., M.D., founder of the East London Hospital for Children, Ratcliff-cross, a few days since, at Ramsgate, after a lingering illness.

JEPSON, BESSIE, the wife of Octavius Jepson, M.D., Medical Superintendent, City of London Lunatic Asylum, Stone, near Dartford, at the residence of her father, W. S. Burton, Esq., Inner-circle, Regent's-park, on December 31, in her 28th year.

MILLER, PATRICK, M.D., at The Grove, Exeter, on December 24, in his 90th year.

NYDLETT, Dr. A. N., at Belsize Manor, Hampstead, on December 22, of rheumatic fever and meningitis, in his 37th year.

OLIVER, ELIZABETH, widow of Richard James Oliver, Surgeon, Leicester, at Highgate-road, London, after a short illness of acute bronchitis, on New Year's-day, in her 78th year.

PEARCE, CHARLES WORTHAM, Surgeon, at 99, Ledbury-road, Bayswater, on December 28, aged 43.

POPHAM, WILLIAM HOME, M.D., M.R.C.S.E., and L.S.A., eldest son of the late Robert Honner Popham, Esq., of Bandon, Ireland, at Gawler, South Australia, on October 20, aged 52.

PRYCE, CHARLES, M.D., etc., at Mornington-road, Regent's-park, on December 23, aged 62.

RICHARDSON, LEA, M.D., at Edinburgh, on December 17, aged 49.

RATTON, ALICE MARY (*née* Bellord), wife of James J. L. Ratton, M.D., Madras Army, at Ceylon, on December 30, aged 22.

SMYTHE, ANNA ELIZABETH, wife of the late Arthur Smythe, M.D., of Pau, at 30, Lee-park, Blackheath, on December 29, in her 53rd year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

AXBRIDGE UNION.—Medical Officer for the Eleventh District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. A. Watson Miller, Clerk, on or before January 8. Election the following day.

CALNE UNION.—Medical officer. For particulars see advertisement.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon. Must be M.R.C.S.E. Applications and testimonials to the Chairman of the Weekly Board, 167, Piccadilly, on or before January 22.

DARLINGTON HOSPITAL AND DISPENSARY.—Resident Medical Officer. Medical and Surgical qualifications required. Further particulars of the Secretary, to whom applications and testimonials are to be sent on or before January 9.

JERSEY GENERAL DISPENSARY.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1.

LANCASTER (COUNTY OF) LUNATIC ASYLUM.—Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. F. C. Hulton, Clerk to the Committee, on or before January 8.

MANCHESTER GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN. —For particulars see advertisement.

MIDDLESEX COUNTY ASYLUM, HANWELL.—Medical Superintendent of the Female Department. Candidates must possess both Medical and Surgical qualifications. Copies of testimonials to Mr. R. W. Partridge, Clerk to the Visitors, on or before January 6.

NORTH WALES COUNTIES LUNATIC ASYLUM, DENBIGH.—Assistant Medical Officer. Qualifications to practise must be produced. A knowledge of the Welsh language is necessary. Applications and testimonials to Mr. John Robinson, on or before January 10.

QUEEN'S COLLEGE, CORK. — Professorship of Chemistry. Applications and testimonials to the Under-Secretary, Dublin Castle, on or before January 22.

ROYAL CORNWALL INFIRMARY.—House-Surgeon, Secretary, and Dispenser. Must be a Member of the College of Surgeons of London, Dublin, Edinburgh, or Glasgow; or a Licentiate of the Society of Apothecaries. Applications and testimonials to the Treasurer, Mr. R. Tweedy, Truro, on or before January 20.

SUNDERLAND INFIRMARY.—Junior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Senior House-Surgeon, on or before January 20.

WEST RIDING LUNATIC ASYLUM, WAKEFIELD.—Chemical Assistant. For further particulars see advertisement.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Keynsham Union.—The Mangotsfield District is vacant; area 4417; population 5160; salary £55 per annum.

St. Marylebone Parish.—Mr. W. S. Britton has resigned the St. John's District; population 32,540; salary £120; no fees.

Settle Union.—Mr. R. Tatham has resigned the Bentham District; salary £40 per annum.

APPOINTMENTS.

Forest-gate School District.—Alfred Thomas Roworth, M.R.C.S.E., L.S.A., to the *Goliath* Training Ship.

Hexham Union.—Thos. E. Stainthorpe, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Western Division of the Third District.

Snaillburgh Union.—Anthony Crisp, M.R.C.S. Eng., to the Horsey District.

Swaffham Union.—John Ewart, B.M. and M.C. Univ. Edin., to the Saham Toney District.

West Derby Union.—Ebenezer Hughes, M.D. St. And., L.F.P. and S. Glasg., to the Walton Workhouse.

DR. TILBURY FOX has been nominated by the President a member of the Leprosy Committee of the Royal College of Physicians.

Dr. Bell has been appointed Medical Officer of the St. John's-wood district by the St. Marylebone Board of Guardians.

General Dispensary, Edinburgh.—Drs. Inglis and Rodger have been elected Medical Officers of this Institution.

An offer of £100 has been made by the Government of India for a simple Medical manual for the use of officers whose duty takes them far from Medical aid.

A permanent Sanitary Committee has been appointed at Chatham, in consequence of cases of typhoid fever having occurred.

The mortality of Wolverhampton is now double the average mortality of the chief towns in England.

The Lambeth Board of Guardians are about to erect a large Dispensary at Lower Norwood, to accommodate the whole of that portion of the parish of Lambeth which is comprised between Westow-hill, Tulse-hill, Rosendale-road, and St. Juliau-road.

The Cheshire magistrates are taking steps to appoint a county analyst. The *Liverpool Mercury* says one argument used in support of the appointment is that it would diminish drunkenness, by preventing the mixture of drink-provoking ingredients with liquor.

East London Hospital for Children.—It has been decided to erect a new Hospital, at a cost of about £8000, in which at least 100 beds could be provided, instead of the thirty-two contained in the present building. An eligible site has been obtained for the new building, close to the Peabody-buildings, Shadwell.

The quality of the waters supplied to the metropolis during the last month, says Dr. E. Frankland in his report, were clear when drawn from the companies' mains. The Thames and Lea waters supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, Lambeth, and East London Companies were of much "better quality than is usual at this season of the year," but as regards organic impurity compare very unfavourably with those supplied by the Kent and New River Companies, which are principally drawn from deep chalk wells and springs.

Mr. Corrance, M.P., in reading a paper "On Medical Poor-law Relief," at the last meeting of the Framlingham Farmers' Club, said:—"We must thoroughly reorganise our Medical relief system throughout; establish dispensaries, districts sanitary and Medical; and, above all, take care that the functions of the Medical officer are precise and exact. His duty is Medical. To the Dispensary Committee and the Board of Guardians belongs the duty of relief. For persons too pauperised to afford themselves the necessary food, the infirmary in the house is the proper place. But also I call organised charity into this field as its proper place. Under the Dispensary Committee its relief will seldom fall short or be misplaced."

Fever and Cholera Notes.—Fever of a severe type, says the *Bombay Gazette*, is very rife in Calcutta. It is, however, strange to say, mostly confined to Toltollah, about the only purely native section of the city to which the new drainage has been extended. Cholera is abating at Lucknow and Delhi.——The whole of the cholera tents on the heights of the Okmeidan, says the *Levant Herald* of December 20, have been removed, and with them, we hope, one of the last reminiscences of this year's cholera epidemic in Constantinople.——A recent letter from Aleppo states that the epidemic, after causing a considerable number of deaths at Mardine, had completely disappeared from that town and all the surrounding nighbourhood.——Forty-five persons died last week in London from different forms of fever, of which four were typhus, thirty-three enteric or typhoid, and eight simple continued fever.——The last weekly bulletin gives no case of typhus fever in Paris, but thirty-three of typhoid.

Rapid Cure of Coryza.—M. Barrier strongly advocates a modification of the treatment recommended by Mr. Pretty, of London, in 1845—viz., the employment of the nitrate of silver, substituting the powder for the solution. He recommends—1. To sneeze during the whole course of the disease as seldom as possible, keeping the mouth wide open, in order to expel the column of air, which would irritate the walls of the nares. 2. To blow the nose seldom and incompletely. 3. To sniff up strongly a very small quantity of the powder (nitrate one part; sugar, reduced to an impalpable powder, nine parts) three or four times a day.—*Lyon Médical*, December 24.

The Coroner's Court.—The coroner's court appears to receive favour at nobody's hands. The Middlesex magistrates grumble at its expenses, and threaten all kinds of proceedings to keep them down; the jurymen return verdicts of a speculative character, and ignore or reject Medical evidence; coroners hold inquests unnecessarily, and refuse inquiries where they are urgently demanded—but, with all its drawbacks, it was generally admitted that the "crowner's quest" still did perform some useful office for the State. The justices of East Yorkshire, however, will not admit this; on the contrary, at the adjourned annual session of the magistrates of Lancaster, held at Preston last week, an extract was read from a report of the justices of the East Riding of Yorkshire, suggesting that coroners' inquests were entirely useless as an institution, and that they not unfrequently obstructed the course of criminal justice and brought the magisterial and coroner's jurisdiction into unseemly and unnecessary collision. The subject was not discussed.

Prevention Better than Cure.—It is marvellous that, in a great city like London, the prevention of disease is regarded, in the main, as a secondary matter. When diseases come in an epidemic form we are all in alarm: we have made such imperfect preparations that all is confusion and mismanagement. Yet we have it in our power, in a quiet way, and without hurry and distraction, to prevent the extension of some of the worst diseases that afflict humanity. It is now believed that cholera, in its origin and its progress, is mainly helped by impurities in our drinking-waters. What have we done to remedy this evil? In some districts all the pumps have been closed; but what of the water supplied by the water companies? At the last meeting of the Vestry of Newington Butts, the Medical Officer of Health drew its attention to the statements contained in the Registrar-General's Report, on the defective quality of the water supplied by the Lambeth, Southwark, and Vauxhall Water Company. Is this water properly filtered? Dr. Cortis remarked that if the Local Government Board, instead of talking of erecting cholera Hospitals for the metropolis, took some steps to prevent the dissemination of cholera-poison by bad water, they would do a great deal more good. It was ultimately resolved to forward a memorial to Mr. Stansfeld, praying for his intervention in the matter; and remedial action is urgently demanded.

The Precocious Cold of 1871.—The winter of 1871-72, whatever it may turn out to be as to duration, has been, at all events, remarkably precocious; for, according to M. Sainte-Claire Deville, in only four years during a century has a greater degree of cold been observed in November than that of November, 1871. These years were 1774, 1782, 1786, and 1858. It is doubtful whether the thermometer has descended lower than on December 9 of this year, on the morning of which day it stood, at the Observatory of Montsouris, at 23° C. below zero. Indeed, M. Arnoult observed it as low as 24° at Parmain, near Isle-Adam. This precocity of cold has been generalised over all France, the southern portion of the country especially exhibiting it.—*Gazette Méd.*, Dec. 16.

Composition and Quality of the Metropolitan Waters in December, 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	21·97	0·048	0·124	0·003	16·2	3·8
West Middlesex .	20·40	0·028	0·118	0·001	15·4	3·6
Southwark & Vauxhall . . .	20·80	0·050	0·122	0·002	15·5	3·6
Chelsea . . .	21·83	0·049	0·120	0·003	16·0	3·7
Lambeth . . .	21·21	0·051	0·119	0·004	15·8	3·7
Other Companies.						
Kent. . . .	26·83	0·011	0·182	0·000	20·0	6·0
New River . .	20·60	0·028	0·120	0·001	15·6	3·7
East London . .	22·31	0·056	0·125	0·001	16·7	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in that of the Grand Junction and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies

to the Association of Medical Officers of Health, 103,055,193 gallons; and the number of houses supplied was 482,719. This is at the rate of 31·6 gals. per head of the population daily.

THE EPIDEMIC OF SMALL-POX IN BERLIN IN 1871.—Between January 1 and November 26 there occurred 14,358 cases, with 4248 deaths. In the four Small-pox Hospitals there were admitted during the same period 6951 patients, of which number 997 died and 666 still remain under treatment.—*Berlin. Woch.*, December 4.

BENZOIC ACID OINTMENT IN ANAL FISTULA.—Dr. Gibbs, of the U.S. Navy, states that this is especially useful in inaccessible blind fistulæ. He has used it in several cases of commencing fistula, as well as in others more completely formed. It was used every night by digital application, taking care that it covered the whole surrounding ulceration, and entered under pressure the fistulous aperture. The following is the ointment, the morphia being added to quiet irregularity of the sphincter, etc.:—Benzoic acid, 2 scruples; acetate of morphia, 4 grains; simple cerate, 1 drachm; softening with glycerine, if required. An immediate feeling of relief follows the application; and the ointment is earnestly recommended to those who dread operation, and when the patient's own finger can be employed. Within a month a fistula of six months' standing has been relieved.—*New York Medical Record*, November 15.

NOTES, QUERIES, AND REPLIES.

Be that questioneth much shall learn much.—*Bacon.*

I. F.—15s. The firm in question will send their catalogue when it is ready.

P. P., Lancaster.—Sir Thomas Browne, M.D., died at Norwich, October 19, 1682, aged 76.

Inquirer.—Both. Dr. W. W. Hunter's salary as Director-General o Statistics to the Government of India is £1800 a year, besides travelling and office allowance.

M., Ventnor.—A Licentiate in Dental Surgery of the Royal College of Surgeons has no right to have on his door-plate "L.R.C.S. Eng." (omitting the D.); the title does not exist.

Another Distinction in Lincolnshire!—We last week stated that one of the Lincoln papers had announced the important fact that one Physician only in that extensive county had been elected a Fellow of the Royal Medical and Chirurgical Society. The *Lincoln Gazette* of last week gives us the startling information that "Dr. Mitchinson, L.K. & Q.C.P., Physician to the Lincoln County Hospital, is the only Lincolnshire Practitioner who signed the Medical Declaration against Alcohol, published in another column."

MEDICAL FEES IN NORWICH.

We, the undersigned, Medical Practitioners residing in Norwich, fully endorse the following resolutions, and pledge ourselves heartily to co-operate with our Medical brethren in carrying out the same:—

That the payment for attendance and medicine by each member of a benefit society be not less than four shillings per annum.

That midwifery, vaccination, and dentistry be considered extras.

That no member residing more than three miles from his club-house be entitled to attendance at his own residence.

That no contracts be entered into for attendance on the wives and families of members of clubs in which such an arrangement does not already exist.

That the fee for attendance on the wives of members of clubs in their confinements be not less than one guinea.

That the fee for examination of candidates for admission and re-admission to benefit societies, and for all certificates (except the ordinary certificate of ability or inability to work), be one shilling.

That the fee for a certificate of death for a burial club be two shillings and sixpence.

Sturley Payne.	Henry Ward.
John Crook.	David Pearice.
R. Cremer.	Charles Williams.
A. M. F. Morgan.	Thos. W. Crosse.
Robert Thompson.	R. E. Gibson.
J. B. Pitt.	Charles Evans Muriel.
F. C. Bailey.	Haynes Robinson.
John Brownfield.	Alfred Master.
Wm. Summerbayes.	William H. Day.
Michael Beverley, M.D.	William Woodhouse.
Phineas Pitts Longford.	W. Cadge.
John F. Watson.	R. Septimus Davenhill.
Wm. Guy, M.D.	Fredk. Sutton.
Joseph Allen.	W. Bransby Francis.

December 23, 1871.

Obstetrician, Truro.—Schultze named Adam as the first accoucheur, by the authoritative voice of necessity: "Laboranti amicæ obstetricis manus adhibuisse, sic quæ chirurgiæ primum forte operationem exercuisse." Le Clerc contended that our first parent was not only the first accoucheur, but also the earliest Physician and Surgeon in the world.

N. H.—If your son should prove successful at the recent Examination in Arts at the College, he could commence his Hospital studies at once, and obtain credit for half a session—*i.e.*, from January to March. Write to the Secretary for the Regulations.

A Competitor.—There is no dearth of essays for the Jacksonian Prize "On the Treatment of Wounds after Operations"; as many as six have been received by the Secretary of the College of Surgeons. The dissertations for the Collegial Triennial Prize must be delivered before Christmas-day, 1873.

Surgeon Royal Navy.—The paper by Dr. Bryson, "On the Respective Valre of Lime-juice, Citric Acid, and Nitrate of Potash, in the Treatment of Scurvy," you will find in vol. xxi., pp. 212 and 435, of the *Medical Times and Gazette.*

The North Devon Infirmary, Barnstaple.—If the statement made in the letter of "A Subscriber," in the *North Devon Journal* of the 28th ult., be true, then it is important that the Medical staff of the Hospital should be increased. It is alleged that "the poor people, on Fridays, are sometimes kept waiting five or six hours, wearied out, ere they are attended to, and then hastily dismissed to their homes—it may be several miles in the country—after nightfall." If this be true, it is simply disgraceful. We cannot help thinking there must be some great exaggeration in this matter. At all events, a searching inquiry should be instituted by the Governors.

SANITARY SCIENCE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

"Ridiculum acri fortius, magnas plerumque secat res."—*Hor.* or *Juv.*

"Within the last fortnight, we have had a still more striking illustration of the difficulty of getting at the truth on any subject, in connexion with the painful inquiry into the sanitary condition of Londesborough Lodge, and the origin of the Prince of Wales's fever."—*Saturday Review*, December 17—"Historic Doubts."

SIR,—A Medical barometer, considered extremely sensitive to all the "*nuances*" of Medical opinion, I have been sorely exercised of late by sanitary science, e'en to the point of losing my "ventral" balance. I had been rising gradually to "Set Fair"—or, rather, "Set Foul," sanitary subjects not being particularly savoury—when the doctrines now being "ventilated" upset me again.

A careful study of the Medical Commissioners' Londesborough, Scarborough, and Sandringham reports, has induced a "*soupçon*" that we may have Smithfield market back again in the old home, and graveyards *restored* to cities and towns!

To increase my perplexity, the *Times* lately published a letter, headed "Typhoid Fever," from Edward Clapton, M.D., most properly deprecating the disturbance of drains, etc., at this season, giving as a reason—*inter alia*—"the existence of fires in almost every room."

On the other hand, Dr. Copland ("Dictionary of Practical Medicine," 1866), in the article "Therapeutics, Special Principles of," writes—"Heated air is the only real disinfectant."

Utrum horum, Mr. Editor? Where does truth lie?—Not, I ween, in the present instance, at the bottom of a well; for are not wells percolated by sewage?—cautioning us to let well alone! (I can never again think the song "All's Well" a sweet air!)

Seriously, after the (*inky*) flood of light that has been thrown on this subject, I am still driven sorrowfully to ask—Where, when, and how did the Prince *really* catch typhoid fever? I am, &c.,

December 18. ANEROID.

Temperance is thanked for calling our attention to the silly article in the *Journal*. The writer of that article appears to think—if he thinks at all—that there is no boundary between temperance and total abstinence. This is the rock on which the enthusiasts against the use of alcohol invariably get wrecked. If "wine" be a "mocker," it has the highest authority for its use, in moderate and proper quantities, when it "cheers but not inebriates." It is to be regretted that the advocates of what they call "temperance" should not give a definition of that word. Their definition, according to the article referred to, is not that admitted to be correct by those who are "temperate in all things."

Scarborough must recollect that some allowance is to be made for the time at which the articles were written. Something "sensational" was expected, and you could scarcely be sensational without some "damning facts" to comment upon. We believe that Dr. Rooke's letter in the *Scarborough Express* of last week gives a fair and truthful account of the sanitary condition of the town. We condemn, and have long condemned, the "system" of fixing upon some health-resort, and "running it down" simply because one or two cases of measles, more or less, have occurred. This kind of proceeding is most unjust, and most injurious to the inhabitants and visitors of the attacked town. But, then, it answers its purpose—the sensational paragraphs are quoted!

PALATABLE COD-LIVER OIL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I wish to call the attention of the Medical Profession to the benefit derived from Fox's palatable cod-liver oil in laryngismus stridulus.

Some time since I was called to see a child, aged 18 months, suffering from a series of severe attacks of this disease, accompanied with convulsions—the child being anæmic, thin, and scrofulous. I prescribed the usual remedies, the spasms coming on at the usual periods, from which it has suffered for at least six months. The debility was considerable, and I ordered two drachms of Fox's oil four times a day with very decided benefit, only two attacks occurring afterwards. This improvement I attributed to a mere coincidence, but curiosity prompted me to try the remedy in three other cases, with singular relief. I may conclude by saying it acted like a charm in spasmodic croup, and is worthy of further trial.

I am, &c., J. PRESTWICH, L.R.C.P., &c.

COMMUNICATIONS have been received from—

Mr. Bulley; Mr. W. Renwick; Mr. Snead; Mr. Prestwich; Dr. T. Browne; Dr. O'Neill; Mr. J. Burton; Mr. J. Moffat; Mr. Corfield; Mr. Holmes Coote; Mr. W. T. Gaant; Dr. Keown; Dr. Neild; Dr. Bence Jones; Dr. C. J. B. Williams; Dr. Russell; Dr. Clifford Allbutt; Dr. Lionel Beale; Mr. T. Bryant; Dr. Moxon; Mr. Frederick Churchill; Dr. Ramskill; Dr. John Harley; Dr. James Russell; Dr. Porter Smith; Mr. Jebb; Dr. Abrath; Mr. G. Lawson; Dr. James Part; Mr. Rix; Mr. Holmested; Dr. Lethedy; Dr. C. Handfield Jones.

BOOKS RECEIVED—

Report of the Registrar-General of Queensland, 1871—Dr. Aldis's Report on the Sanitary Condition of the Parish of St. George, Hanover-square—How to Feed Infants, by Dr. James Jamieson—Waring's Plan for the Collection and Disposal of Sewage on the Separate System—Report of Sanitary Committee to the Commissioners of the City of London on Spurious and Unsound Tea—Report of the Highgate Infirmary—Year-book of Pharmacy.

PERIODICALS AND NEWSPAPERS RECEIVED—

The Salopian—North Devon Journal—Medical Press and Circular—The Doctor—Pharmaceutical Journal—Nature—Australian Medical Gazette—Darlington and Stockton Times—Australian Medical Journal—Journal of Mental Science—Lincoln Gazette—Philadelphia Medical Times—Scarborough Express—Stamford Mercury—Transactions of the American Ophthalmological Society—Monthly Microscopical Journal, January—Quarterly Journal of Science—Popular Science Review.

APPOINTMENTS FOR THE WEEK.

January 6. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. Tyndall, LL.D., F.R.S., "Ice, Water, Vapour, and Air." (Lecture V.)

8. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. First Lettsomian Lecture, by Dr. Habershon, "The Liver and its Nerves."

9. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, LL.D., F.R.S., "Ice, Water, Vapour, and Air." (Lecture VI.)

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Wm. Ogle, "Complete Recovery after Removal of a Cervical Vertebra." Dr. John Ogle and Mr. Henry Lee, "Case of Tracheotomy: Detachment of Tube from its 'Shield and Escape into Trachea; Removal by Second Operation fourteen months afterwards."

10. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Dr. James Christie (Physician to the Sultan of Zanzibar), "On 'Kidinga Pepo,' a peculiar form of Exanthematous Disease recently epidemic in Zanzibar."

11. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

12. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Ogle, "On the Temperature in certain Affections of the Nervous System, but especially in Tetanus." Mr. R. Brudenell Carter, "Case of Paralysis of External Rectus cured by Iodide of Potassium, Faradism, and Operations." Mr. Cooper Forster, "Case of Popliteal Aneurism, with Remarks on Treatment."

Quekett Microscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Specimens only.

VITAL STATISTICS OF LONDON.

Week ending Saturday, December 30, 1871.

BIRTHS.

Births of Boys, 993; Girls, 898; Total, 1891.
Average of 10 corresponding weeks, 1861-70, 1791·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	823	863	1686
Average of the ten years 1861-70	749·9	744·0	1493·9
Average corrected to increased population	...	...	1643
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561169	3	5	2	...	4	...	4	2	...
North ...	751638	49	30	4	...	29	1	11	3	2
Central ...	333887	3	7	3	...	6	...	2	...	1
East	638928	22	15	13	...	13	...	6	1	2
South	966132	20	18	12	2	27	3	10	2	4
Total	3251804	97	75	34	2	79	4	33	8	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·604 in.
Mean temperature	43·0°
Highest point of thermometer	48·4°
Lowest point of thermometer	36·6°
Mean dew-point temperature	40·0°
General direction of wind	S.W.
Whole amount of rain in the week	0·56 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, December 30, 1871, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1871.*	Persons to an Acre. (1871.)	Births Registered during the week ending Dec. 30.	Deaths Registered during the week ending Dec. 30.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3263872	41·8	1891	1686	48·4	36·0	43·0	6·11	0·56	1·42
Portsmouth ...	113459	11·9	60	55	50·2	33·8	42·1	5·62	0·63	1·60
Norwich	80536	10·8	38	60	48·0	31·8	40·4	4·66	0·17	0·43
Bristol	183298	39·1	122	103	...	...	...	...	...	...
Wolverhampton ...	68476	20·2	60	89	48·7	35·2	42·2	5·67	0·81	2·06
Birmingham ...	344980	44·1	287	183	50·3	37·0	42·8	6·00	0·93	2·36
Leicester	95882	30·0	83	60	49·0	33·0	41·2	5·11	0·53	1·35
Nottingham ...	86929	43·6	67	60	49·3	31·6	41·4	5·22	0·55	1·40
Liverpool	493649	96·8	342	309	52·1	32·7	42·4	5·78	0·82	2·08
Manchester ...	356099	79·4	254	227	49·0	31·0	41·8	5·44	0·95	2·41
Salford	125422	34·3	78	65	49·4	31·8	41·8	5·44	0·80	2·03
Bradford	146987	22·3	109	92	50·0	32·3	42·7	5·95	0·31	0·79
Leeds	266657	12·1	209	123	50·0	32·0	43·4	6·33	0·17	0·43
Sheffield	241507	10·6	225	157	50·0	33·5	42·9	6·06	0·58	1·47
Hull	122266	34·3	85	66	49·0	33·0	40·6	4·77	0·33	0·84
Sunderland ...	98797	29·9	91	77	...	...	...	...	...	...
Newcastle-on-Tyne	128677	24·1	121	81	50·0	38·0	43·1	6·17	0·43	1·09
Edinburgh	201728	45·6	+128	+132	...	...	...	...	...	...
Glasgow	479227	94·7	+310	+329	...	...	...	...	...	...
Dublin (City, etc.)	310565	31·9	226	178	53·0	30·2	42·6	5·89	0·64	1·63
Total of 20 Towns, in United Kingd'm	7204001	33·8	4906	4125	53·0	30·2	42·2	5·67	0·58	1·47

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·60 in. The highest was 30·02 in. at the beginning of the week, and the lowest 29·23 in. on Thursday evening.

* The figures in this column are the unrevised numbers enumerated in April last, raised to the middle of the year by adding 1-20th of the rate of increase which prevailed between 1861 and 1871. As the population of Dublin and its suburbs showed a decline between the Censuses of 1861 and 1871, the enumerated number in April last has been inserted for that city, the population being assumed to be now stationary.

+ No returns having been received from Edinburgh or Glasgow, averages of the numbers of births and deaths returned in those cities in recent weeks have been inserted, in order to make up totals for the twenty towns of the United Kingdom.

HUNGARIAN WINES.

Having for the last ten years devoted all my energies and means to introduce to the favourable notice of the British Public the pure Wines of Hungary—my native country—I gratefully acknowledge that my efforts have been rewarded by a certain amount of present success, with a prospect of its further development under a system of honest and fair dealing—the only legitimate means of upholding and extending the reputation these Wines have hitherto attained.

But I find myself at the same time compelled to warn the Public that certain Firms in London, attracted by my success, do not scruple to imitate my labels, show-cards, price-lists, price-placards, and even the distinctive names of my Wines, and under these disguises to foist upon too credulous consumers an inferior article, consisting partly of wines rejected by me as unfit to be supplied to my customers; one Company, falsely representing itself as Purveyor to the Emperor of Austria, going the length of claiming to have obtained the first prize medal at the International Exhibitions—the last of which was at Paris in 1867, while the existence of the Company itself only dates from January, 1870.

I beg, therefore, hereby respectfully to give notice that my Business has no connexion whatever with any of these Firms or Companies, and that I can only guarantee the pure quality of Hungarian Wines bearing my own label, and having the corks branded with my name in full.

In illustration, I beg to annex copy of a letter officially communicated to me by the Hungarian Government, through the Imperial Royal Consulate-General for Hungary in London, having reference to one of the advertising Firms above alluded to.

I am, respectfully yours,

7, *Mincing-lane, London, E.C., December*, 1870. MAX GREGER (from Hungary).

No. 24411-842.—From the ROYAL HUNGARIAN MINISTRY FOR AGRICULTURE, COMMERCE, AND TRADE, to the HONOURABLE MR. SCHAEFFER, Aulic Councillor, Imperial Royal Hungarian Consul-General in London.—In reply to your Honour's further inquiry concerning a Society advertising itself in London as "The United Wine Growers of Hungary," I have to observe that no Society of Exporting Wine Growers of such description is known in this country, and that no such Company obtained the First Prize Medal at the International Exhibitions, nor are they the direct purveyors to the Emperor of Austria; and that, according to information obtained, the Society signing under such firm in London is formed only of one individual, a former *employé* of the house of Max Greger, of high repute in the Wine Trade, and likewise honourably known throughout Hungary.—The Minister, SZLAVY, m.p.

Pest, December 10th, 1870.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg,

PULLNA, FRIEDRICHSHALL, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton, and the Natural Bromo-Iodine Water of Woodhall Spa, Lincolnshire.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

USED BY THE LONDON HOSPITALS FOR ITS CHEAPNESS, FLAVOUR, AND NUTRITIVE QUALITIES.

WHITEHEAD'S SOLID ESSENCE OF BEEF,

The only Pure Solid Extract of Beef, 1 lb. equalling 42 lbs. of Butchers' Meat.

SOLIDIFIED SOUP SQUARES

No house should be without, as they are one-fourth the cost of ordinary-made Soups. 16 Squares (each make 1½ pint) occupy only the same space and are the same weight as One Pint Tin of Preserved Soup.

Wholesale of Copland & Co., Travers & Sons, Crosse & Blackwell, E. Lazenby & Sons, and of the Manufacturers, at 8 and 9, Lime-street-square, London.

"Palatable" Cod Liver Oil with Quinine

WESTERTON'S PATENT
ZYMOTIC DISINFECTING FLUID

Prevents the spread of infection; protects the nurse and those about the sick-room. Sponging over the body with the Fluid disinfects the emanations from the skin and (being volatile) exhalations from the lungs of the sufferer. Destroys the noxious properties of the excretions, and purifies the atmosphere.

PREPARED BY

W. C. WESTERTON, 83, Abingdon-villas, Kensington, London;

and may be had of all Chemists, in bottles, 1s., 1s. 9d., and 3s. 6d.; 10s. per gall.

COCKING'S PATENT POROPLASTIC SHEETS FOR SPLINTS

AS SUPPLIED TO THE ARMIES AND NAVIES OF ENGLAND, FRANCE, PRUSSIA, RUSSIA, AUSTRIA, AND ITALY).

Consists of a felted substance, is plastic when heated, and rigid when cold, rapidly and easily cut to any shape and manipulated.

"We have no hesitation in recommending it as the best and most convenient splint. The country Practitioner will find it a special boon. Mr. Cocking (of Penzance) deserves the thanks of many, inasmuch as he supplies it to Hospitals almost at cost price."—Medical Press, Sept. 27, 1871.

"By attending to the very simple directions for use, the most perfect splint yet known may be made. We earnestly recommend it to army Surgeons, believing that for field hospital purposes it will supersede all others." British Medical Journal, Sept. 23, 1871.

"Mr. Cocking (of Penzance) has laid the Profession under much obligation by his sheets for splints, which have succeeded admirably, and will prove highly useful to the Surgeon, particularly in the country."—Lancet, Sept. 16, 1871.

"To Practitioners in the country and colonies 'Cocking's Splint' will be of the utmost service. It has been used with success by our leading Surgeons, and has been found to answer all that was required or expected."—Medical Times, Oct. 7, 1871.

"We believe it is destined to displace the old-fashioned splints, as by keeping a small stock of it the Surgeon is ready to put up any fracture to which he may be called. No country Doctor should be without it."

"To country and colonial Practitioners invaluable."—London Hospital Report, by Jonathan Hutchinson, Esq., Senior Surgeon, Sept. 29, 1871.

"A great boon to Medical men in the country. In town and Hospital practice invaluable. Its porosity is one of its greatest advantages."—Report by John Croft, Esq., of St. Thomas's Hospital, Oct. 6, 1871.

"Without doubt the material will come into very extensive use when its valuable qualities shall have become more generally known."—Report by A. E. Durham, Esq., of Guy's Hospital, Oct. 7, 1871.

Hospital Quality, at 4 per lb.; substances made, about 1-8 in., 3-16 in., 5-16 in.; in sheets measuring about—size, 4 ft. by 3 ft., 2 ft. by 3 ft., & 2 ft. by 1½ ft.
Ordinary Quality, at 6 6 per lb.; " " 1-8 in., 3-16 in.; " " " " " "
Finest Quality, at 10 6 per lb.; " " 1-8 in., 3-16 in.; " " " " " "

The average cost of a medium size perfect Splint being from 6d. to 2s. A Sample Packet of Pieces of each quality and substance, for medium-sized Splints, about 10s., to be had of all Chemists and Surgical Instrument Makers.

The Finest quality has been found invaluable for protections for Boils, Eruptions, &c.

Wholesale Agents: Maw, Sons, and Thompson, 10, 11, & 12, Aldersgate-street, London, E.C.; Krohne and Sesemann, 8, Duke-street, Manchester-square, W.; Lynch and Co., 171a, Aldersgate-street, E.C.; Henry Aitken, Bishophill, York; H. B. Brady, Mosley-street, Newcastle; Duncan, Flockhart, and Co., Northbridge, Edinburgh; Fannin and Co., Dublin; J. and W. Wood, King-street, Manchester; and at the Depôt of this Invention, at Benj. Wilson, Walbrook House, London, E.C.

ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture II.

THE PRINCIPLES BY WHICH WE SHOULD BE GUIDED IN THE TREATMENT OF SLIGHT CASES OF FEVER, AND OF THE EARLY STAGE OF CASES WHICH MAY AFTERWARDS BECOME SERIOUS OR DESPERATE.

"The valuable labours now under prosecution in the long-neglected field of treatment of disease . . . . have received general recognition, and thus a final blow has been given to the dominion of a disheartening therapeutic nihilism."—*Felix von Niemeyer.*

It would seem almost superfluous to urge that the admission that there are cases of fever which will get well without any Medical treatment whatever, and cases that cannot be saved by any mode of treatment yet discovered, does not involve the inference that nothing is to be gained by treatment, and that fever must be left to itself, or the natural course of the disease merely watched with care, and the efforts of Nature assisted. But yet, from some of the remarks made of late years, many a student has been led to suppose that it was really doubtful whether the patient suffering from fever was placed in a more favourable condition as regards his chances of recovery if he was subjected to treatment, than if the course of the malady was attentively *watched* by his Medical attendant. Some, indeed, seem to cast doubt upon the utility of all treatment, and the art of Medicine seems to be almost reduced to the art of consoling the sick and their friends. Scientific doubt concerning the action of remedies, encouraged by general scepticism or disbelief in the remedial influence of measures, many of which were believed in by our predecessors, has paved the way for the reception of that most interesting and highly intellectual form of philosophical credulity, "nihilism." Such a result, however, can hardly be fairly accounted for by the advance of knowledge, as has been erroneously intimated; but seems rather to be an obstinate determination on the part of some to insist that all shall look at things from that particular side upon which they have taken *their* position; and that only certain facts, which are of importance by reason of having received *their* imprint, are to be regarded as facts at all. On the other hand, all phenomena which seem to be inconsistent with the predetermined conclusion, which is alone to be accepted, are to be ignored or denied. But, notwithstanding all these advantages, therapeutic nihilism has happily not yet been generally acted upon in this country—nay, it is not always acted upon where it is encouraged as a therapeutical theory. Practitioners will not soon be brought to admit that between the remedies prescribed by them and certain results which follow soon after the remedies in question have been introduced into the body there is no relation—and this although the same sequence of phenomena is noticed in case after case. Nor is it an easy matter to convince oneself that a medicine which produces certain quieting effects in health is useless in disease in which restlessness is painfully manifested and may be certainly relieved without any harm resulting from the administration of the remedy in question. No one will deny, for example, that opium acts upon the system in a special manner, but many talk as if they doubted whether this action of opium was of the slightest advantage, or was desirable, in disease. Nay, they seem to argue that, although opium and other remedies do undoubtedly allay pain, it by no means follows that such drugs are of any advantage, or ought to be given, in certain morbid conditions accompanied by pain, distress, and suffering, notwithstanding these very remedies have been given, and have been believed to have been of use, by many successive generations of Practitioners.

Of all forms of scepticism, therapeutic scepticism is the most extraordinary, seeing that many of the questions upon which doubt is cast are matters of everyday experience, and some of them can even be determined by a very simple experiment being made upon the organism of the sceptic himself. As a fact, however, sceptical philosophy is invariably supported by dogmatic teaching of a very decided character, promulgated by authority that cannot err. It is this that enforces conviction and wins disciples. But surely no one who has studied the phenomena of the body in health and disease will be in danger of being misled either by those who, professing to be able to *cure*, seem to be proud of their ignorance concerning the *nature* of morbid changes, or by those melancholy therapeutic nihilists who profess to base their scepticism upon the inferences arrived at by philosophical speculators who demand acquiescing reverence on the ground that they have devoted themselves to pure science, and have left the pursuit of practice to less highly trained intellects.

Up to this time we have always had amongst us not a few Practitioners who have studied science as earnestly and as successfully as any who have devoted their lives exclusively to scientific labours. Scientific theories have been studied and criticised upon their own merits, by men well conversant with their bearing upon disease, and in this way Medicine has gained no small advantage. But within the last few years more than one authority in some special section of scientific investigation, armed with the power popularity alone can give, has thought fit to assume an attitude dictatorial rather than persuasive, towards us and towards the members of another Profession—which, like ours, is sometimes attacked by sneers, and its working members accused of being unphilosophical and something worse. With arrogant condescension and pompous seriousness, we are made acquainted with the last new hypothesis and its bearing upon the views it is desired we are to entertain concerning the nature and treatment of disease; but the truth of the hypothesis we are called upon to accept is not to be demonstrated until some time after we have ceased to live. We are expected not only to receive without inquiry and with enthusiastic respect the wildest conjectures, but to regard them and employ them as if they had been established and were incontrovertible facts. And yet it must be obvious to everyone who considers the matter, that the position assumed by the teachers and followers of conjectural science is opposed to the spirit of science, and antagonistic to the principles entertained and taught by every scientific body throughout the world. But it unfortunately happens that some members of our Profession, who have accepted without examination some of the newest dogmas, have been led, unintentionally, no doubt, to sanction and support this arrogant system, which is based upon intolerance, and is most damaging to liberty of opinion, if, indeed, it is not utterly inconsistent with that freedom of thought and work without which true science cannot progress or even exist. Practitioners, persuaded by philosophers that Practitioners cannot pursue science to advantage, or scientific men practise, and ignorant or forgetful of all the scientific work that has been done by members of their Profession in the time past, seek to inaugurate a new system which shall discourage in the Profession the very work by which the high position now held by Medicine has been gained, and by the continuance of which it will alone deserve to retain the place among the sciences it has occupied, and still holds, at least in England. Let us learn from the work and lives of Harvey and Hunter, and Bell and Astley Cooper, and Brodie, and many more, what is our duty as well as our true interest. If we would serve Medicine as we ought, with all the great advantages we now possess and which were not enjoyed by those who preceded us, we should follow the example they so nobly set, by thinking and studying and investigating, as well as by doing all we can to relieve suffering and prevent or alleviate present disease.

It is impossible to discuss the treatment of fever or any other form of disease, as it ought to be discussed, without considering the bearing of many facts which might appear at first sight to be of scientific interest only. It seems to me, therefore, that all students should be well educated in science, so that when they come to be Practitioners they may be able to form an opinion upon the views that are put forward, and may be in a position to pursue certain branches of scientific investigation, if opportunity offers, and thus extend our knowledge of the nature and treatment of disease.

The Treatment of Slight Fever.

We may learn something concerning the treatment of the feverish state, if we study carefully the changes which go on in our own bodies when we ourselves are suffering from a slight feverish cold, and observe carefully the effects of the remedies we think well to take for the alleviation of the symptoms. The instinct which prompts a patient suffering from the feverish condition to seek warmth, and to prefer plenty of blankets and the neighbourhood of a good fire to a cold bath or the free application of cold air to the surface, is probably preservative, and experience justifies the adoption of

such a course. All the unpleasant feelings experienced by anyone who has a feverish cold disappear for the time if he takes a warm bath. If the skin can be made to act freely, by keeping the surface warm, internal heat is got rid of very quickly, and thus the temperature of the body kept down. Mr. Garrod has proved by experiment that by simply removing the clothes from the healthy body the temperature of the blood rises as much as two degrees of Fahrenheit's scale, while, very soon after the skin has been again protected by a badly conducting artificial covering, the temperature falls to its normal standard. The explanation is simple. By exposure to cold the radiation of heat from the cutaneous surface is reduced, the vessels are caused to contract, and the blood driven *from* instead of *towards* the surface of the body. Hence, if we want to cool the blood and internal tissues in ordinary fever, we must keep the skin warm and protect it from currents of air. If, however, the temperature is already very high, indeed near the point at which, if reached, death must soon occur, the decided external application of cold is probably the only way of keeping the patient alive (see page 732); but we are now discussing the principles of treating slight degrees of fever only. By external warmth, then, the blood is determined to the surface, the glands are excited to act, and by free perspiration the blood is relieved of certain constituents which were accumulating in it to the detriment of the organism. The tension of the vessels of the secreting organs is lessened, and the removal from the blood of water holding in solution various soluble excrementitious substances soon follows. We all know how pleasant is the sensation produced when moderate perspiration is established in the early stage of a common feverish cold. Even placing the feet in very hot water relieves, in a few minutes, the unpleasant feeling of tension about the head, nostrils, throat, and neck which, doubtless, we have all experienced. And there is no doubt that in promoting perspiration by those simple plans known to all, and by the introduction of sudorific remedies, the feverish attack may be shortened and its intensity lessened. By free perspiration, not only are various materials removed from the blood, but thirst is excited, the gratification of which insures the solution and subsequent elimination of more material which might otherwise be devoted to the abnormal nutrition of bioplasm, leading to those serious consequences which have been already referred to. The moderate perspiration excited by exercise conduces to health in this way, and renders needless the occasional use of the warm bath. If free sweating be artificially induced at the right moment, it is not improbable that a feverish attack may sometimes be altogether averted. Moreover, free excretion from one surface is not unfrequently followed by free action on the part of the other excreting organs, and in this way a quantity of material, the presence of which in the blood would be detrimental, is got rid of before any harm has resulted.

But a slight feverish attack may be *cured* by simple rest and warmth. Very often twelve hours' uninterrupted rest is the only remedy that is required to cut short many an attack of feverishness—indeed, healthy constitutions frequently "sleep off" their feverish ailments, and many children who go to sleep in a highly feverish state, wake up twelve hours afterwards perfectly well.

I have often been led to suppose that a sharp attack of diarrhœa, occurring during the period of incubation of virulent fever-poison, has mitigated the subsequent attack of fever, consequent upon the multiplication in the body of the special fever-germs. This conclusion is supported by the fact that in many cases all the symptoms of commencing continued fever have suddenly ceased upon the occurrence of free action of the skin, kidneys, and bowels. Of course, no one can say that the symptoms were really due to the actual presence of contagious poison in the blood, which was destroyed or removed in consequence of the rapid outpouring of soluble materials and water; but a number of considerations render it probable that such an inference is really correct—at least, in some instances.

In many of those struck down by contagious fever there has been for some time previously imperfect action of the eliminating organs, during which period the blood was acquiring a state favourable to the growth and multiplication of disease-germs. When the excreting organs do not act properly, certain substances, which ought to be eliminated, get reabsorbed by the blood, and then the composition of the circulating fluid becomes altered, and its properties modified. Nor is it astonishing that excrementitious substances, perhaps modified in character, and circulating freely among the most delicate tissues of the body, should derange their action. Sick-headache, certain muscular and nerve pains, aching of the limbs, and the sensation of general discomfort which pervades every sensitive part of the body (and parts, even, which in health afford us no evidence of their existence), are probably due to the presence of those noxious matters which ought to have been eliminated. Such considerations lead us to a plausible explanation of the influence of methods of treatment, the utility of which has been conclusively proved by experience. Thus, we see how purgatives act beneficially in the early stage of the feverish state; and, of all purgatives, calomel and other mercurial preparations. These promote free action of all the glands which pour their secretions into every part of the alimentary canal, from the mouth to the anus. By this free excretion quantities of peccant substances are removed from the blood which otherwise would have remained there. Similarly we may explain the beneficial action of diuretics and sudorifics, of a course of German waters, of the frequent use of the warm bath and of the Turkish bath in many forms of disease. Those living in cities, taking little exercise, and imbibing the warm air of rooms, will do wisely if they excite artificially the free action of the skin, kidneys, and bowels from time to time. In this way, and by care in eating and drinking, they may keep the body in fair health under disadvantages, and diminish, I believe, to a very great extent, their liability to troublesome febrile attacks, to contagious fevers, and to inflammatory disorders.

(*To be continued.*)

ECZEMA PALPEBRARUM.

CLINICAL LECTURE DELIVERED AT ST. MARY'S HOSPITAL

By HAYNES WALTON, F.R.C.S.,

Surgeon to the Hospital, and Surgeon in Charge of the Ophthalmic Department.

(Reported by Mr. Moir.)

Gentlemen,—This is the most common affection of the eye. It is usually, but incorrectly, called tinea tarsi and ophthalmia tarsi.

The characteristics are the same as those of eczema of the trunk or of the limbs, a little modified by position, to which are added certain effects arising out of the conformation of the edge of the eyelid, the part of the lid in which the affection is most developed.

The whole thickness of the eyelid with its many textures are involved.

The skin is the texture most palpably implicated. It is inflamed, and there are marked changes in its structure, as well as derangement in its functions. Its sensibility is augmented. It is thickened by serous infiltration, and, as a consequence, is œdematous and sometimes fissured. It exudes at times a serous lymph. Sometimes papules, sometimes vesicles, sometimes pustules, form on it. The commonness of the last entitles the disease to be placed under the pustular form. There is nothing peculiar in this from an ophthalmic point of view, because the pustules prevail in hairy situations. Cuticle, which, thus raised, may be entirely thrown off and replaced by a soft, lardaceous-looking material, which is merely unhealthy cuticle attended by muco-purulent secretion, or by a thick crust formed by the drying of the morbid secretions which are poured out from the skin itself, the Meibomian glands, the cilia follicles, and the conjunctiva—most, or all, of these eruptions may co-exist.

The usual appearance of the disease when we are consulted is that of crusts on the edge of the eyelid by which the cilia are glued together in groups. In children there is usually an overflow of tears, and the cheek is excoriated or roughened.

The subjective symptoms are itching or tingling, but neither of these is well marked in this region, and the patient escapes much torment; or soreness; or stiffness of the eyelid; or a sensation of roughness in the eyeball, or of grit in the eye, which necessitates the eye being kept partially closed; and nearly always agglutination of the eyelids during sleep.

The usual variations in eczema are met with here. The inflammation, or the pimples, or the pustules, or the exudation, or the infiltration may predominate. This includes mildness or severity of such symptoms. Thus, there may be present but the least redness or swelling, with only a little scurf between the cilia; or most of the eczematous features in the fullest intensity.

The upper eyelid suffers more than the under.

The disease may be partial, affecting only a portion of the edge of the lid, or completely occupy it, and involve besides a considerable portion of the rest of the palpebra.

Both eyelids are usually diseased, and of both the eyes.

Effects of Eczema.—Beneath incrustations which adhere to the

cuticle, there is always excoriation from which serum and thin pus exude. The ulceration may be sufficiently deep to destroy much of the skin, and even some of the tarsal cartilage.

The cilia follicles seldom escape damage, from which the cilia grow abortively (and trichiasis is induced) or are lost from suppuration in their follicles.

The fibro-cellular tissue of this situation becomes thickened and dense. This is the chief source of the thickening of the ciliary region, which may be very marked.

The tarsal cartilage becomes thickened and hardened, and contracted from side to side.

The Meibomian glands become altered in function, pour forth a viscid secretion (the chief source of the agglutination of the eyelids), and are ultimately destroyed, and their outlets closed by cicatrisation. Some of them may suppurate.

The conjunctiva undergoes the morbid changes usually produced in it by inflammation.

Entropium may ensue.

Slight ectropium is more common. This is associated with damage to the punctum lacrymale, together with displacement of it and loss of the inner and part of the outer edge of the eyelid, with cuticular degeneration of the surface, by which a glazed red margin is left, constituting what is called lippitudo.

The whole of the palpebral and most of the ocular conjunctiva may inflame.

Intolerance of light may be produced, irrespective of cilia irritating the eyeball.

Eczema is essentially, in the eyelid, a chronic affection, without any specific course, although there are stages or periods of irregularity of the several morbid phenomena. It may last for years, and even for life, with intermission to the more prominent symptoms, all the while spoiling the eyelid more and more. It generally lessens in severity, and may even cease, when the cilia follicles and the Meibomian glands are destroyed.

Cause of Eczema Palpebrarum.—Struma, or poor nutrition, is so frequently an accompaniment of the eczema, that it must be regarded as the remote or predisposing cause. There is frequency of the disease among the children of very poor people. In nearly every case there are evidences of an inherited or an acquired scrofulous constitution. There are enlarged lymphatic glands, or a swollen upper lip, or sore ears, or a tumid belly, or derangement of digestion, or strumous conjunctivitis, or paleness, with looseness of the skin. There are immediate or exciting causes, such as small-pox, measles, scarlet fever, smoke and filth in bad dwellings, impure air.

General Treatment.—I regard the constitutional remedies as the most essential. If the eczematous diathesis be subdued—that is, if the poor nutrition, or the debility from whatever origin, which is the predisposing cause of the affection be removed—the local manifestation of the disease will soon vanish; yet sooner, if assisted by local measures.

The secret of the cure consists, then, essentially in discovering the nature of the debility—whether it be assimilative, nutritive, or nervous—and subduing it. This includes attention to the disordered function of any internal organ. I have known of several severe examples of the affection which have been completely cured by change of residence—and nothing else—from this to a warmer country.

Local Treatment.—In every instance the cilia should be closely cut. Any of them that are irregular or abortive should be plucked from their follicles. For the eczema itself, he remedy must be shaped according to the condition of the eyelid when the patient is seen, subject to the principles of reducing the inflammation, stimulating to a more healthy action the exuding surface, removing accumulated secretions or crusts, and healing excoriations or ulcerations.

When the inflammation is acute rather than chronic, the use of an evaporating lotion to reduce any unnatural heat is advantageous. When it is chronic, warm applications, as fomentations, are preferable. With the reduction of inflammation, the case is materially better.

When the disease is in an early stage, and the surface-accumulation is scanty and of the lighter form (chiefly from serum), and the inflammation is subdued, or where it is so slight as not to be a prominent symptom, stimulation is called for.

Lotions are not applicable, on account of their liability to irritate the conjunctiva and the cornea. Ointments answer better, and they serve the double purpose of enabling the drug to be definitely and persistently applied, while they prevent the eyelids from adhering. They are demanded of varying strengths, according as irritability or sluggishness of the skin prevails; the stronger being for the latter state. They should be applied twice or thrice daily, with a sable brush, after the part has been cleaned with warm water and Castile soap, and any secretion washed off. The merest smearing of the surface will suffice. After trying various substances, I have settled down to the use of the hydrargyri oxidum rubrum. My weakest formula is one grain of this to a drachm of the unguentum cetacei; my strongest, two grains to the same.

The greater the strength of the ointment, the more sparingly and neatly must it be used, lest it should get within the eyelids and inflame the eye. Should either seem to irritate, it must be used less strong or less often.

When the disease is of old standing, and the incrustations are dense and adherent, being made up of dried pus, epithelium scales, sebaceous matter, carbon and dust from the atmosphere, beneath which there is sure to be excoriation and ulceration, other treatment is needed. The incrustations must be removed without damaging the eyelid. My plan is to keep them oiled with almond oil for a couple of days, and then to sop them for a long time with hot water and a rag until they are sufficiently softened to be wiped off or picked off; oil the lids, and on the following day wash them and dry them thoroughly, and touch all the excoriated or ulcerated parts with nitrate of silver. For years I used strong solutions of this drug, but now I apply it solid, scraping the stick to a point, and touch the parts lightly and definitely, taking the greatest care not to let any of it enter the eye. I keep a piece of blotting-paper at hand to soak up any moisture which may be about the edge of the lid. Should any of the caustic accidentally enter the eye, in spite of all caution, the eye should be very freely washed at once in a basin of tepid water, to relieve the burning. This plan may require to be repeated. An interval of a week at least should be allowed, during which the eyelids should be washed and oiled twice or thrice daily.

From time to time the cilia should be re-cut, or re-plucked.

Or, again, the application of the nitrate of silver is required when there are pustules on the lid, with little or no incrustation.

Any excoriation or roughness of the cheek should be attended to. Eczema palpebrarum will readily yield to the methods which I practise and recommend. Certain damage which may have been inflicted on the cilia follicles is capable of much repair, and tolerably healthy cilia may grow in the place of abortive ones, or of many which have dropped. But many, or all of them, may be destroyed. The Meibomian glands are always more or less destroyed in all prolonged or severe cases of the affection. When treatment is undertaken before the glandular apparatus of the lid suffers, every trace of the disease may be removed.

The injury which the disease inflicts, and which is so apparent, must not be mistaken for the disease itself, or else treatment will be continued when it is unnecessary, and often undertaken when the eczema is cured.

The trichiasis, the entropium, or the ectropium which may be induced, demands special treatment, of which I shall not speak to-day.

ORIGINAL COMMUNICATIONS.

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

By HENRY ARNOTT, F.R.C.S.
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IV.(a)

SARCOMA.

Distinction from Carcinoma—Divided into Spindle-cell, Round- and Oval-cell, and Myeloid Sarcoma, together with Glioma and Psammoma—Spindle-cell Sarcoma.

In the last paper of this series those varieties of carcinoma which have acquired distinct names, as fungus hæmatodes, colloid cancer, and the like, were discussed, but a large number of malignant growths yet remain for consideration, which in their intimate structure are essentially distinct from carcinoma, although generally coupled with it by English Surgeons under the comprehensive title cancer. The most important of these may be divided into two groups—the sarcomata and the epitheliomata—and of these sarcoma claims our first

(a) These remaining "Notes" should have appeared some months back, but their completion was postponed by unavoidable causes.—H. A.

attention, as the more malignant and, from a clinical point of view, the more nearly allied to carcinoma.

It is probable that by far the greater number of "soft cancers" recorded in English publications are really sarcomas; and if we were to limit the term "cancer" to "carcinoma" as anatomically defined in a previous article, we should probably be surprised to find how very rarely true primary medullary cancer is met with by the Surgeon. Nearly all melanotic growths, for instance, and all the primary soft cancers of bone, would probably be more correctly classed with the sarcomata, whilst a fair proportion of "villous cancers," and at least a third of the cancers affecting the uterus and rectum, would find a place amongst the epitheliomata. Allusion has been already made to the clinical importance of recognising these distinctions, and it will be sufficient to repeat here that, although all three varieties of new growth are truly and formidably malignant, they exhibit this property in very different and definite degrees.

Thus sarcoma, although in certain of its forms nearly as prone as carcinoma to infect remote parts, very rarely invades lymphatic glands, and probably seldom appears as a secondary tumour until a comparatively late stage in the disease: hence the greater hope of successful issue of any operation attempted for the removal of a sarcomatous growth, provided that the affected limb be divided at a safe distance from the tumour. Where this is not possible, as in certain cases of mammary sarcoma, although the patient may live for long with no visceral or glandular complications, yet the local growth itself will be very apt to return with great pertinacity; the reason being, that sarcoma is as essentially an infiltrating or tissue-invading growth as carcinoma, and equally difficult to extirpate without a freer use of the knife than is commonly deemed necessary. Mr. De Morgan(b) has suggested a valuable rule for operative interference with these malignant tumours of the limbs. After narrating two cases of sarcoma of the lower limb before the Pathological Society of London last year, he remarked—"Are there any means of diagnosing these sarcomatous tumours from true cancerous encephaloid growths, if such exist? There can be no doubt that in the latter disease amputation should be performed through the joint, not in the continuity of the bone. I do not think it is so necessary in a case of sarcoma. At any rate, I have amputated through the bone in some of these cases without return of the disease after many years." In the same contribution it is suggested that "generally the veins are less defined, and the growth is much more rapid in a sarcoma than in an encephaloid cancer." Whether this last observation is constantly true or not, I have no means of judging, for I confess to having myself very rarely seen primary soft carcinoma of a limb; and as I have seen very many malignant growths in such positions, I am led to believe that primary soft carcinoma of the extremities is seldom met with by Surgeons. In the form of secondary growths in the viscera I know of no distinguishing naked-eye character of sarcoma save the absence of umbilication. Very few carcinomatous nodules, however soft, fail to exhibit more or less dimpling of the surface from contraction of the fibroid stroma upon the cells which, in the centre of the growths, so soon fattily degenerate; but I believe that secondary sarcomatous nodules have usually no such sign distinguishing them. For the rest, these sarcomata vary in consistence from tough, fibrous tissue to a creamy softness, yield to the knife scraping the cut surface an abundant milky juice, blend intimately with surrounding healthy tissues, very rarely being encapsuled, although occasionally shelling out from such a tissue as the lung, as though they were so limited, and in all respects bear the closest resemblance to genuine soft carcinoma.

The main distinctive characters of sarcoma, therefore, are to be sought for solely in the form and arrangement of its microscopic elements; and a sarcoma may be described as a tumour made up of embryonic tissue, which may tend towards development into a perfect tissue. Hence *a sarcoma is almost entirely a cellular growth, with more or less of visible intercellular substance*, and the cells are usually of a spindle or fusiform type.

Although the prevalence of one form of cell in each tumour is the rule, it is not uncommon to meet with considerable variety in the size and shape of the component cells in a single tumour; and in classifying the sarcomata, therefore, one must have regard rather to the *prevailing form of cell* than to the exclusive presence of any one form. Thus, one may meet with fine oat-shape, large plump spindle, small or large oval, small round, and huge myeloid cells; and, according to the proportion in which any one of these forms preponderates, sarcomatous tumours are subdivided into—(1) *spindle-cell*, (2) *round- or oval-cell*, and (3) *myeloid* sarcomata. Besides these general varieties, sarcoma takes a special form, and receives a special name when affecting the neuroglia or fine connective tissue of the nervous system—*Glioma*,—and when springing from the membranes of the brain, and enclosing corpora amylacea and "brain sand"—*Psammoma*. In all these several varieties, however, the one character remains—viz., that the bulk of the tumour is built up of simple cells, bound together by a scanty homogeneous or granular semi-fluid substance. Hence a marked distinction from carcinoma, in which the cells are, as a rule, quite free from any visible intercellular material, and float in the meshes of a fibrous stroma. A further difference is seen in the form of the component cells. It has been already said that the cells of carcinoma are of an epithelial type. Now, cells of this kind are very rarely met with in sarcoma. One does, indeed, occasionally meet with a formidable variety of sarcoma, in which huge angular and many-tailed cells are interspersed with the spindle cells forming the bulk of the tumour; and a *scraping* of such a growth might readily mislead an observer. But, in the great majority of cases, the cells of sarcoma, when they are not simply elongated and disposed in regular tracts, are plump and round or oval rather than angular, for they are imbedded in a soft fundamental substance, and are so not subjected to the changes of form brought about by mutual pressure in the case of the cell-elements of carcinoma. The semi-solid intercellular substance also accounts for the comparatively scanty juice yielded on scraping any but the softest sarcomas. This juice is also less freely miscible with water than that of carcinoma, the cells cohering in little flakes; and, in examining thin sections, very few detached cells float out into the water or glycerine in which the section is immersed, instead of the large number of cells so detached in carcinoma.

Spindle-cell Sarcoma is by far the most common of all these tumours. Springing from connective tissue, and assuming the form met with in the development of granulation tissue into the fibrous texture of a scar, one meets with considerable differences in the size and appearance of the cells, which may vary from an extremely slender fusiform shape, barely distended in the centre by a small elongated nucleus, to a plump cell with large oval nucleus and delicate tapering extremities. Whichever variety be present, a certain definite arrangement of the cells prevails, their axes being parallel to one another, and broad waving tracts of such parallel cells crossing and recrossing through the tumour. A scraping generally shows sufficiently the type of cell present (see Fig. 12), but viewed in section the shape of the individual cells is by no means always so easily made out. The regular arrangement of oval or elongated nuclei, and the occurrence here and there of patches of apparently small round cells enclosed by these others—in reality similar bands running at right angles to the first, and so cut across transversely — is tolerably suggestive; but at the edges of such a section one may generally see the fine tails bristling out, if indeed there be not a free cell or two showing yet more distinctly their precise form (Fig. 13). In some parts of these tumours the spindle-cell growth gradually passes into ordinary connective or white fibrous tissue, in such a manner as to render it impossible to say whether the spindle-cells are developing into the formed tissue or whether they are themselves derived from this by a retrograde metamorphosis to an embryonic condition. Besides this common admixture of connective tissue, spindle cells usually form the basis of other sarcomatous tumours, occurring in small number, indeed, in the round- and oval-cell growths, but rarely wholly absent. A curious feature of this growth is the tendency shown by its elements to assume a larger, plumper form with each recurrence, and, together with this alteration in the size of the component cells, to exhibit an increased rapidity of growth and proneness to infiltration.

Fig. 12.

Fig. 12.—Scraping from a spindle-cell sarcoma. Magnified 220 times.

Spindle-cell sarcoma (including, as it does, the tumours long recognised as "fibro-plastic," "recurrent fibroid," "fibro-

(b) Path. *Trans.*, vol. xxi., p. 341.

cellular," and many of the "medullary sarcomata") exhibits very different degrees of malignancy in different cases, so that

FIG. 13.

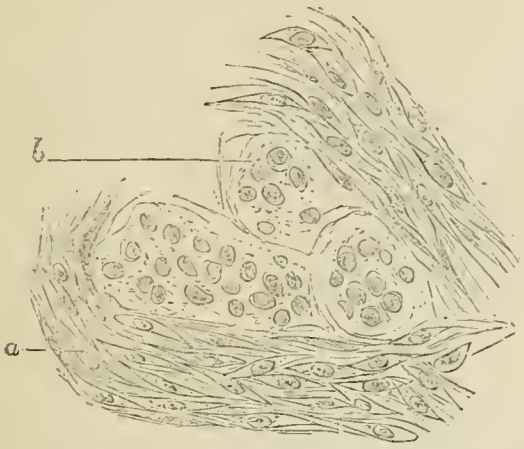

FIG. 13.—Thin section of a spindle-cell sarcoma, showing in the centre groups of similar cells divided transversely.

a prognosis is specially uncertain in the case of this growth. Local recurrence may in almost all cases be predicated where the knife has not gone quite clear of the affected tissues; for this form of tumour, usually described as encapsuled, or spreading only in the connective tissue, occasionally exhibits distinct infiltration of other textures. I have myself seen instances of spindle-cell growth invading muscular tissue, and breaking up the striped fibres in quite as destructive a manner as any carcinoma. Infection of remote parts is also not very uncommon. I have met with spindle-cell growths in the liver, lungs, and mesentery, but such secondary growths are very rarely found in the lymphatic glands.

It is probable that a careful consideration of the microscopic structure offers valuable indications for a prognosis, those tumours being more apt to show true malignancy whose elements are plump and interspersed with large, irregular, and multinucleated cells. Special regard must, of course, be had to the rapidity of the growth, its consistence, and its seat. Where, for instance, the tumour is distinctly encapsuled, and even pedunculated—as in certain fleshy nasal polypi—the prognosis would be infinitely more favourable than where the growth infiltrates a soft, moist part, subjected to constant movement—as I have twice seen it in the uterus, simulating, in all respects, ordinary uterine cancer, and running a similarly fatal course.

(*To be continued.*)

THE PATHOLOGY AND TREATMENT OF CHOLERA.(a)

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My experience of cholera began during the epidemic of 1849. I had been taught, and I firmly believed, that the main object of treatment in the earlier stages of the disease is to arrest the discharges by opiates and other astringents, in order to prevent that drain of liquid from the blood which was assumed to be the cause of choleraic collapse. Acting upon this theory of the disease, I soon found reason to question its truth. The first case which painfully excited my doubt was that of a woman about 40 years of age, who had what appeared to be a mild attack of choleraic diarrhœa. She had vomiting, purging, and cramps, but she had a warm skin, a good pulse, and no symptoms of collapse. I prescribed five grains of Dover's powder to be taken every hour; and when I saw her again, after three doses had been taken, I found that the vomiting, purging, and cramps had all been abruptly checked by the opium, but, to my dismay, she was in full collapse, and in a few hours she died. These facts appeared to me to be inconsistent with the theory which I had accepted and acted upon. If collapse results from the drain of liquid, it was difficult to understand the occurrence of extreme collapse immediately after the sudden arrest of the discharges. It was years before I obtained the clue to the mystery; but this case greatly excited my interest, and made me watchful and observant of the phenomena of the disease, and in particular of the influence of various and opposite modes of treatment. During the course of that epidemic I had the opportunity of witnessing the effects of two very different modes of treatment in King's College Hospital. At one period all the cases were treated by liberal doses of brandy and opium, and about two-thirds of the cases thus treated died. The treatment was then entirely changed; brandy and opium were discontinued, and unlimited quantities of salt and water were given. The effect of this treatment was to excite frequent vomiting, and certainly not to check, but rather to increase, the purging; yet, under this rough and apparently unscientific treatment, the recoveries were as numerous as the deaths had been under the brandy and opium treatment—about two-thirds of the cases treated by salt and water recovered. The larger proportion of recoveries under this method of treatment was not accounted for by the milder character of the disease—the cases were of equal severity.

In the year 1854, as the Junior Assistant-Physician, I was left in sole charge of the Hospital during nearly the whole period of the epidemic, and I entered upon the work with feelings of anxiety bordering upon dismay. Bearing in mind the results of my experience during the previous epidemic of 1849, I also learnt what I could of the effect of what is called the saline treatment of the late Dr. Stevens, and of the treatment by repeated small doses of calomel with cold water, as recommended and practised by the late Dr. Ayre, of Hull. It is very difficult to make an exact comparison between different modes of treatment, at various times and places, by different Practitioners, but it appeared to me that the results of the saline and the calomel and cold water treatment were decidedly more favourable than the opiate and stimulant treatment. The effect of the salines and the calomel would be rather to encourage than to check the discharges. It might be, so I argued, that the discharges were the means by which a morbid poison is eliminated, and if so, they may be as much an element in the natural process of cure as the cutaneous eruption of the acute exanthemata.

By this train of reasoning I was led to make trial of the treatment by castor oil and cold water, and the results were such as to convince me that, at any rate, we were on the right track. The experience of a very few cases sufficed to show, with unmistakable clearness, that the drain of fluid from the blood, by the discharges from the stomach and bowels, is certainly not the main or essential cause of choleraic collapse. This was proved by the fact that patients who were admitted in collapse, recovered from that condition while profuse discharges by vomiting and purging still continued, and that no recovery from collapse occurred without a continuance of the discharges; while, on the other hand, it was found that a complete arrest of the discharges during collapse is a sign of fatal import.

At that time I knew nothing of the pathology of cholera, and I made some serious practical mistakes, one of the greatest being that of giving a needless amount of medicine. On the whole, however, the results were so satisfactory that I determined to publish the cases in detail. Meanwhile, stimulated to unusual exertion by the unreasoning outcry which had been raised against my practice, I determined to do my utmost to solve the problem of the pathology of cholera. I began to read, and carefully to analyse and annotate, the works of those men who had seen most of the disease, especially in India. I found in the works and reports of the earlier Indian writers on cholera—Scot, Bell, Orton, Twining, Annesley, Christie, Kennedy, etc.—a rich storehouse of facts, and it soon became apparent that these facts were quite irreconcilable with the theory which had gained almost universal acceptance; I mean the theory which explains the collapse of cholera by the discharges from the alimentary canal. By degrees, and by dint of hard work during the winter of 1854-55, I arrived at what I believed to be the true physiological explanation of the phenomena of choleraic collapse, and in the spring of 1855 I published in a volume (on "Epidemic Diarrhœa and Cholera") the results of my labours, with a detailed report of all the cases treated by me during the epidemic of the year preceding. From that time to this I have seen no reason materially to alter my views, either as to the nature of the disease or the principles of treatment.

If I had foreseen to what an extent the publication of my doctrines on the nature and treatment of cholera would involve me in painful, profitless, and time-consuming controversy, I

(a) A paper read at a meeting of the West Kent Medico-Chirurgical Society at Greenwich, January 5, 1872.

am not sure that I should have had the courage to undertake the duty. I have always been thankful to receive candid and unprejudiced criticism, but it is not pleasant to have to defend oneself against such a weapon as deliberate, unscrupulous misrepresentation. This, unfortunately, I have had to do quite recently, as on more than one occasion before. Having once, however, committed myself to this work, I have never felt the slightest inclination to withdraw from it. Moreover, the labour has not been without its reward. The investigation which it has involved has led me to the interesting discovery of hypertrophy of the muscular walls of the minute arteries in many tissues throughout the body; and in this fact to find the explanation of the hypertrophied left ventricle in cases of chronic Bright's disease.(b) In prosecuting these researches, I have had the satisfaction of knowing that I have been working to promote the interests of mankind as well as the credit of my own Profession, which is deeply concerned in the solution of the problem as to the nature and the correct treatment of cholera. While the opposition which I have met with has certainly not been free from prejudice, and has, for the most part, been more noisy than rational or argumentative, I have obtained the public support of men of great eminence, distinguished alike for the extent of their knowledge and the soundness of their judgment. And last, but not least, you, Mr. President and gentlemen, have done me the honour to invite me here to-night to discuss with you the pathology and treatment of cholera.

In the brief history which I have given of the manner in which I was led to take up this question, and to prosecute the inquiry, my main object has been to show that I did not begin by theorising on the subject of cholera; on the contrary, I loyally accepted the current theory, and proceeded to give it a practical application. It was not until I discovered that, when thus applied, it was misleading and mischievous, that I felt bound to examine the grounds upon which the theory was based. I now propose to bring distinctly before you, in the fewest possible words, the main points relating to the pathology and treatment of cholera which I believe to be probably true, and upon each of these points to invite comment and criticism.

Cholera is the result of a material and portable morbid poison, which is capable of being conveyed from place to place and communicated from person to person. The poison may enter the system either with the air through the lungs, or with the food and drink through the alimentary canal. It is probable that the rapid spread of the disease over a limited district is mainly due to atmospheric agency during an epidemic season; it is still more probable—nay, it is certain—that sudden local outbreaks have been caused by the drinking of impure water, and especially of water contaminated by choleraic discharges. Mr. Charles Macnamara, of Calcutta, records the fact that nineteen healthy men, upon one occasion only, drank water with which cholera stools had been mixed. In the course of the next three days five of these men were seized with cholera. At the time of this remarkable occurrence there was no cholera in the neighbourhood, nor had there been for years. The poisonous discharges employed in the performance of this experiment were brought from a distance.

It is probable that, during an epidemic season, water containing fæculent matter, even though not contaminated with the specific choleraic discharges, may communicate the disease directly; or it may act as a predisposing cause, concurring with some unknown specific atmospheric agency.

In connexion with the subject of impure water as the vehicle of the cholera poison, the name of the late Dr. Snow deserves most honourable mention. It is to his persevering efforts, in spite of ridicule and opposition, that we are mainly indebted for our knowledge of this important agency in the causation of cholera.

In whatever way the poison enters the system—whether with the air through the lungs, or with water through the alimentary canal, it is absorbed, and enters the circulation before it gives rise to its characteristic symptoms. The chief facts and arguments upon which is based the doctrine of a blood infection in cholera are these:—

It is a general law of physiology that the absorption of a poison into the circulation precedes the occurrence of the constitutional symptoms to which it gives rise. The cholera poison, if it were not absorbed, would form an exception—and, I believe, the only known exception—to this general law. When the poison enters the system by the lungs, the blood is obviously the only channel by which it can reach the alimentary canal. In like manner, when the fœtus in utero (as has frequently happened) is found to have been infected by cholera, its intestines containing the characteristic rice-water fluid, it is obvious that the morbific poison must have traversed the blood of both the mother and the fœtus before it could reach the alimentary canal of the latter. There is usually an interval, varying from one to three or four days, between the absorption of the poison and the onset of the characteristic symptoms. During this period of incubation there is, in some cases, a general feeling of *malaise* and depression—the result, probably, of blood-poisoning and a consequent disturbing influence upon the nervous system. It would be a very interesting point to determine whether, as is highly probable, there is a febrile elevation of temperature during this initiatory stage of the disease.

In a large proportion of cases, not only of collapse, but of choleraic diarrhœa, the urine which is first passed after the height of the disease is over is found to be albuminous. This affords the same kind of evidence of blood-poisoning as is afforded by the same symptom in cases of diphtheria, scarlatina, and other diseases which are unquestionably associated with a specific blood-poison.

Lastly, the most probable explanation of the formidable symptoms which have often followed the abrupt arrest of the choleraic discharges by opium is that the poison, being thus retained within the circulation, had caused the collapse or the fever, as the case may be.

The discharges from the alimentary canal are the means by which the poison and its products are expelled from the system. In this respect they are analogous to the eruption of small-pox and the intestinal discharges of enteric fever. That the discharges in a certain stage of decomposition do contain a specific poison, is conclusively proved by such experiments as that of Mr. Macnamara, before referred to; and the doctrine is implied in the practice of disinfecting the cholera stools, the importance of which is almost universally acknowledged.

The discharges, when abundant, are obviously a source of great exhaustion, and they may be so copious as to kill; but that they are neither the sole nor the chief cause of choleraic collapse, is evident from the following considerations:—They bear no direct relation to the degree of collapse; in the worst class of cases an inverse relation appears to prevail. Collapse and death may occur without discharges, and with but a scanty secretion into the alimentary canal; while, on the other hand, recovery from collapse is always associated with a continuance of the discharges, which gradually cease as reaction occurs. The state of collapse is evidently different from that of mere exhaustion by profuse discharges; it has often been relieved by venesection, which would certainly aggravate a state of mere exhaustion; on the other hand, it is not beneficially influenced by the remedies for exhaustion—such as alcoholic stimulants, for instance. The onset of collapse has often been too sudden to be satisfactorily explained by exhausting discharges; and recovery from extreme collapse is sometimes so rapid as to form a striking contrast with the necessarily slow recovery from the exhausting effects of profuse discharges. Neither the amount of the discharges nor the rapidity with which they are poured out affords a satisfactory explanation of the state of collapse, which, as I have said, gradually diminishes and passes away, while the liquid flux continues until reaction has been established.

Dr. Edward Goodeve admits that symptoms similar to those of collapse may result from poisons without purging. He says: "I have seen people under the influence of the malarious poison, in Calcutta, lie for hours as cold and pulseless, and as embarrassed in the breathing, as in cholera." (Reynolds's "System of Medicine," vol. i., p. 712, second edition.)

There is reason to believe that *the main and essential cause of choleraic collapse is an impeded flow of blood through the lungs, and a consequent defective circulation throughout the whole system.*

The proofs of this impediment *during life* are—1st. The comparative emptiness of the systemic arteries; the pulse being small and feeble, or even imperceptible, at the wrist. 2nd. The fulness of the systemic veins and the consequent lividity of the surface. *After death*, anatomical evidence of impeded circulation is found in the condition of the heart and lungs. The left side of the heart is empty, or nearly so, while the right cavities of the heart, the pulmonary artery, and the large systemic veins are distended; the lungs are anæmic, light in weight, and either dark- or light-coloured, according to the presence or absence of a retrograde passive engorgement of the bronchial veins and capillaries.

When collapse has been very prolonged, the lungs may be œdematous, a result of serous exudation from the passively engorged bronchial capillaries.

The hæmorrhagic spots commonly seen beneath the peri-

(b) See *British Medical Journal*, April 16, 1870.

cardium and the pleura are analogous results of engorged systemic veins and capillaries. Similar hæmorrhagic spots are often found in cases of valvular disease of the heart; and these, again, are similar to the ecchymoses beneath the skin and conjunctiva which sometimes occur during an epileptic fit.

The most complete and accurate record of the post-mortem appearances is that contained in the fourth volume of the London Hospital Reports.

The only probable explanation of the arrest of the circulation during collapse is that which refers it to contraction of the minute pulmonary arteries excited by the poisoned blood. A similar arrest of the circulation occurs in cases of acute apnœa. The anatomical condition of the heart and lungs after death from sudden suffocation is identical with that which is found in cases of choleraic collapse. So, during a severe fit of spasmodic asthma a state of collapse occurs very similar to the collapse of cholera. The main difference between choleraic and asthmatic collapse consists in this—that in asthma there is a primary apnœa, the result of bronchial spasm, and a secondary asphyxia or pulselessness, consequent on contraction of the minute pulmonary arteries; on the other hand, in cholera collapse there is a primary asphyxia and a secondary apnœa, consequent on the arrest of the circulation.

The rapidity and the duration of arterial contraction in different diseases vary exceedingly, from the sudden spasm of the cerebral arteries, which is now generally believed to be the immediate cause of an epileptic fit, to the persistent contraction of the minute systemic arteries, which results in hypertrophy of their walls, and causes the hypertrophy of the left ventricle in cases of chronic Bright's disease.

It is evident that an impeded flow of blood through the lungs does explain the phenomena of collapse.

I have references to several cases of embolism of the pulmonary artery, the symptoms of which have borne a striking resemblance to those of the collapse stage of cholera. The most completely recorded case of this kind is one published by Dr. Alfred Carpenter (*Lancet*, September 23, 1871). In that case, as Dr. Carpenter remarks, "the only symptoms wanting to make it apparently one of cholera were alvine discharges and cramps in the limbs." The symptoms actually noted were blueness of the surface, icy coldness of the uncovered parts of the body, cold clammy perspiration, coldness of the breath, sinking of the eyes, feebleness of the voice, a feeble thready pulse, with quick breathing, excessive thirst, and almost complete suppression of urine (two ounces of urine only being passed one day, and on another day less than two ounces).(c)

(c) Reference may be made to the following cases in which fibrinous plugs in the pulmonary artery caused symptoms of collapse:—A case briefly mentioned in my "Notes on Cholera," p. 54; one recorded by Dr. Martyn (Pathological *Trans.*, vol. xvi., p. 71); another by the same author (Obstetrical *Trans.*, vol. x., p. 266); one by Dr. Playfair (Obstetrical *Trans.*, vol. x., p. 23); and a case by Mr. Worley (*British Medical Journal*, May, 1870, p. 459).

(*To be continued.*)

NOTES ON AN INSTANCE OF THE

CO-EXISTENCE OF THE EPICONDYLOID AND EPITROCHLEAR FORAMINA IN THE HUMAN SUBJECT;

AND THE PERSISTENCE OF THESE FORAMINA IN THE MAMMALIA.

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In a female subject, age 95, recently(a) dissected at the Royal College of Surgeons, I met with a specimen of the epitrochlear foramen co-existing with an epicondyloid foramen (Fig. 1). Professor Flower, with his characteristic liberality and kindness, has allowed me to describe this specimen;(b) also to examine the extensive collection of skeletons of the mammalia contained in the Hunterian Museum, with the view of determining the persistence of one or both of these foramina.

Both of these foramina were absent on the right side of the female subject above mentioned. The epicondyloid foramen was partly formed by bone and partly by ligamentous tissue (Fig. 1, *Ep C F*). The bony part consisted of a well-developed conoid-shaped process, which projected downwards and inwards from the inner border of the humerus, about half an inch above the inner condyle. From the summit of the process a small tendinous arch stretched to the inner condyle, joining there the internal intermuscular septum which formed the posterior wall of the canal leading to the osseo-tendinous foramen. The pronator radii teres took its origin from the bony process and the tendinous arch. The median nerve and the radial artery passed through it, the latter being given off from the brachial opposite the middle of the humerus. This arrangement closely accords with some instances met with by Professor Gruber, of St. Petersburg, except that the radial is substituted for the ulnar artery. The latter eminent observer has already placed on record no less than forty-seven instances in which the epicondyloid foramen was present in the human subject. This is the only specimen, however, which I have met with in the human subject, although I have carefully examined all that have come under my notice in the dissecting-room for several years, as well as every accessible skeleton. Professor Wood's large dissecting-room experience coincides with that of my own, that the epicondyloid foramen is of rare occurrence in the human subject of this country. As regards the epicondyloid foramen co-existing with a high division of the brachial artery, the foramen is decidedly the exception, and not the rule. I have oftentimes met with a high division of the artery, but in no instance, except the prementioned, has it been accompanied by an epicondyloid process or foramen.(c)

(a) April Examinations, 1871. (b) Now in the Museum collection.
(c) This foramen has been described by Dr. Knox, "Great Artists and Anatomists"; by Professor Struthers, *Lancet*, 1863; and by Mr. Mivart, *Transactions of the Philosophical Society*, 1867.

FIG. 1.

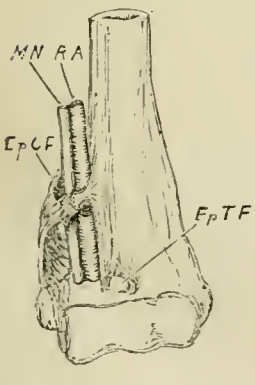


FIG. 2.

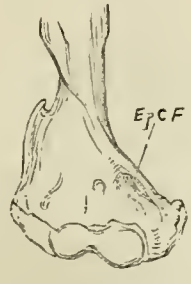


FIG. 3.

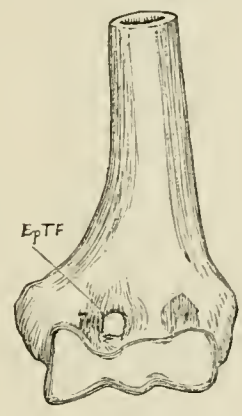
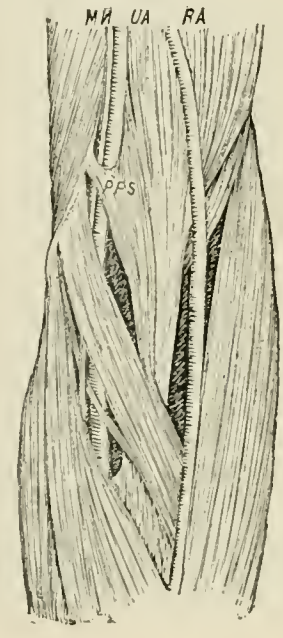


FIG. 4.



Explanation of Figures.

FIG. 1.—Lower end of left humerus, female, aged 95. *Ep T F*, epitrochlear foramen; *Ep C F*, epicondyloid foramen; *R A* (radial artery), *M N* (median nerve), passing through the foramen.

FIG. 2.—Humerus of Wombat (after Flower), showing epicondyloid foramen.

FIG. 3.—Lower end of left humerus of gorilla (male), showing epitrochlear hole.

FIG. 4.—Left arm of female subject, aged 19. *P P S*, an abnormal additional slip of origin of the pronator longus, perforated by the ulnar artery (*U A*) and median nerve (*M N*).

Figs. 1 and 3 Professor Flower kindly allowed to be drawn from the specimens.

Besides the epicondyloid foramen, there was on the same (left) side only a well-marked epitrochlear foramen.

More recently, in a female subject, aged 19, I met with a very interesting specimen which throws much light on the metamorphosis which this foramen undergoes between an entirely osseous foramen on the one hand, and its complete abortion on the other. The pronator radii teres was normal so far as its humero-condyloid and its ulnar coronoid attachments were concerned. It had, however, associated with it a strong muscular slip (Fig. 4, *P P S*) arising from the internal humeral inter-muscular septum, about a quarter of an inch above the large and ordinary condyloid pronator origin. This slip was entirely muscular, about an inch wide at its origin, separated from the pronator longus by an areolar interval. It gradually tapered to its termination, where it joined the middle of the condyloid head of the pronator longus on its upper aspect. This supracondyloid pronator addition was perforated at its base by the ulnar artery and median nerve (Fig. 4, *U A*, *M N*), the former arising from the brachial opposite the coraco-brachialis insertion (exactly simulating the specimen already described). Below this point the artery and nerve preserved their average arrangements—namely, the nerve passing between the condylo-coronoid heads of the pronator, and the artery behind both. This specimen I consider to be an important link between the completely osseous epicondyloid canal, and an almost aborted one as exemplified by merely muscular perforation. It has, also, an additional interest in bearing out the views of Professor Busk, that the epicondyloid process gives increased attachment to the pronator longus. It was present on the left side only. In the same arm there was an inverted palmaris longus. The right arm was normal in every respect.

Wishing to find out whether one or both of these foramina were present in the humeri of skeletons of the ancient Britons, dug up from the cromlechs or barrows, I wrote to my friend, Mr. Lukis—the venerable and experienced Guernsey archæologist, whose collection, and personal knowledge, of everything pertaining to the ancient past, derived from the abundant materials which the Channel Islands have afforded him, are second to none in the United Kingdom(d)—for information on this point. He informed me that perforations of both human and mammalian bones were common enough; but, as a rule, these were artificially made, for the purpose of passing a string through, so that they could be worn round the neck as amulets. Mr. Lukis, however, forwarded me a sketch, copied from one in his collection, of a savage warrior with an inverted humerus suspended to his neck, the string passing through a foramen exactly in the position of the epitrochlear foramen. Whether this is artificial or not, it is difficult to say; but the fact is very suggestive, even if the foramen is artificial, inasmuch as it may readily be surmised that the shrewd minds of the aborigines of this or other countries were not slow to avail themselves of the ideas which they derived from the isolated instances of perforated humeri presented to them. What, indeed, could be a more emblematical trophy than a human bone? and what could be so little an encumbrance with equal effect? and, providing that the bone had done its duty as a trophy, by a transition of ideas it may be readily imagined that the possessor preserved it as an amulet. In the celebrated Bateman collection, Dr. Barnard Davis informs me that there is not a single specimen of perforated humerus.

It would seem, then, that the presence of an epicondyloid process in the humerus of the human subject is of rare occurrence, and the existence of a complete osseous epicondyloid foramen still more so. But the co-existence of an epicondyloid and epitrochlear foramen in the same individual is a condition less frequently met with than either of the preceding. The epitrochlear foramen exists in about 12 per cent. of the human skeletons which I have examined.(e) In those specimens in which this foramen was present the ulnar proximal processes were in no way better developed than in those in which the foramen was wanting. Again, the foramen is not always equal when present on the two sides; neither does it always exist on the two sides of the same subject—*e.g.*, in the skeleton of the female Boschisman in the Hunterian Museum it is present on the left side only, while in a native male Polynesian skeleton it was present on both sides, but much larger on the left than on the right side. Now, it is very singular that this condition should almost exactly correspond with that which prevails amongst the gorillas. In the three skeletons of the gorilla in the Hunterian Museum the epitrochlear foramen is present only on the left side, being very large and circular. The minute perforation on the right side can scarcely be called a foramen, corresponding more in character with that of a nutritious canal than a decided epitrochlear foramen. Of the five skeletons of the chimpanzee it was entirely wanting in three; present, but small, on both sides in one, and only on the right side in the other. In the silvery gibbon (*Hylobates lucisecus*) it was present on the right side only, and small; while in the *Hylobates lar* it was wanting on both sides. Of four specimens of the orang (*pithecus satyrus*) the epitrochlear foramen was present in three on both sides; in the fourth skeleton—a young female—it was wanting on both sides. In the skeletons of the old-world monkeys the prevailing disposition is the absence of the epitrochlear foramen. It is present on the left side only, and very small, in the sacred monkey of the Hindoos (*semnopithecus entellus*). In the *colobus velerosus*, on the right side, small; proboscis monkey, right side. In two skeletons of the pig-tailed monkey it was present in one, and only on the right side. In four specimens of the short-tailed monkey it was present, but small, on both sides in one; in another on the right side only; and in the remaining two it was wanting. In the skeletons of the following monkeys in the Hunterian collection the epitrochlear foramen is wanting:—The *cercopithecus*, *cercopithecus ruber*, *macacus*, negro monkey (*lagothrix Humboldtii*), Siamang or Unqka ape, pig-tailed monkey (*macacus menestrinus*), bonnet monkey (*macacus radiatus*), and three specimens of the mandril (*papio mormon*). And the following new-world monkeys:—The red howling monkey (*mycetes caniculus*); four specimens of the marmoset (*hapale jacchus*); two specimens of the spider monkey (*ateles arachnoides, et ateles paniscus*); the white-bodied spider monkey (*marimonda*); and the awantibo.

In some instances the epitrochlear foramen is found co-existing with the epicondyloid foramen—*e.g.*, in the squirrel monkey (male) *callithrix sciureus*, on the left side there is an epitrochlear foramen.(f) Besides the epitrochlear, there is an external and internal epicondyloid aperture on the right side; on the left side the radial epicondyloid foramen is wanting. In the female of the same species there is, on both sides, an epicondyloid and an epitrochlear foramen. In one of the two skeletons of the slender lemur (4633) there is a corresponding condition to the above-described, also in the galeopithecus cebus. This peculiarity is met with again in the ichneumon (*mangusta ichneumon*) in which both foramina, epitrochlear and epicondyloid, are found; and in the wombat (*phascolomys vombatus*). In the Virginian opossum the epitrochlear is present on the left side only, and the epicondyloid on both sides.

We find the epitrochlear foramen next amongst the dog-like carnivora: it exists on both sides in the following:—The *proteles cristatus*, Italian greyhound, St. Bernard's dog, Newfoundland, Esquimaux dog, dingo, Arctic wolf (on right side larger than on left), common fox, and long-eared fox. It is also present on both sides in the civet (*viverra civetta*). In the French bloodhound and badger the foramen is wanting.

Amongst the ruminants it is found in the musk-deer (*moschus moschiferus*) on both sides. In the female and male napu chevrotain (*moschus napu*), in the Javan chevrotain (*tragulus Javanicus*), and in the meminna chevrotain (*moschus meminna*), on both sides, but small. Amongst the *unigulata* the epitrochlear foramen is found in the white-lipped peccary (*dicotyles labiatus*), the collared peccary (*dicotyles torquatus*), the Indian wild boar, and the wild boar. In one specimen of the wild boar, this epitrochlear foramen was wanting on both sides. It exists on both sides in the *hyrax dorsalis* and *hyrax Capensis*.

In the capybara, the porcupines, crested and crestless, the coypu, the paca, the aconchy, the viscacha, chinchilla, guinea-pig, jerboa, and occasionally in the rabbits and hares, amongst rodents, it is present on both sides.

In the Virginian opossum (*didelphis Virginiana*) the epitrochlear foramen is present on the left side only.

The epicondyloid foramen is not generally found in the higher quadrumana. It is wanting in the gorilla, chimpanzee, orang, etc., etc. It is present only in the following monkeys

(d) Mr. Lukis' collection of flint implements, etc., and other curiosities of the aborigines of the Channel Islands, Brittany, etc., would alone amply repay a visit to Guernsey—that is, to anyone interested in these matters.

(e) According to Professor Busk, quoted in Darwin's "Descent of Man," page 28, "Professor Broca noticed this perforation in 4½ per cent. of the arm-bones collected in the Cimetière du Sud, at Paris;" and in the Grotto of Orrony, the contents of which are referred to the Bronze period, as many as eight out of thirty-two were perforated. M. Dupont found 30 per cent. in the caves of the Valley of the Lesse belonging to the Reindeer period. M. Lequay observed 25 per cent. perforated in a sort of *dolmen* at Argenteuil. M. Pruner-Bey found 26 per cent. in bones from Vaurcal. The latter state that it is common in Guanche skeletons."

(f) On the right side of this specimen (4666) the ligaments are left, so it is impossible to say whether the foramen is present on that side or not.

(excepting those prementioned where the two foramina coexist simultaneously) :—the douroucouli, the pitheeia monachus, potto, Tarsier, Capuchin monkey, grand galago, and aye-aye.

It is more persistent among the lemurs, being present in the black- and white-fronted lemurs, the indri, the slender and ruffled lemurs, and galeopithecus—in the last-mentioned coexisting with an epitrochlear as already described.

Amongst the carnivora it is present in the cheetah, wild cat (three specimens), tiger, lion, Indian tiger, luricate (*ryzæna tetradactyla*), racoons, *coati mundi*, badger, ailurus, Javanese skunk, pine marten, sable, ermine (male and female), kinkajou weasels, Alpine polecat, otters, genet (or young *paradoxurus*), and *paradoxurus typus*, binturong, sea otter, common and harp seals on both sides. In the musang, or palm civet, an epicondyloid perforation exists on the outer side of the humerus only; there is no ento-epicondyloid foramen. It is wanting in the black, polar, and sloth bears, and in the elephant and saw-toothed seals.

Passing over the ruminants, etc., comprising the zebu, *nahura Argali*, Nepaul goat, sheep, Saiga antelope, four-horned antelope, gazelle, goat, padu deer, roe, fallow-deer, reindeer, fawn, African chevrotain, vigugna, young pigmy chevrotain, llama, paco, wart hog, ass, zebra, equus, it is not met with in a single specimen. The *sirenia* and *cetacea* have not a vestige of any perforation.

It is large and well developed amongst some of the sloths—*e.g.*, the two-toed (*cholæpus didactylus*), and in the armadillos (*chlamyphorus truncatus*—the nine-banded), and the great armadillos (both sides and large), *tatusa hybrida*, weasel-headed armadillo (*dasypurus sexcinctus*), the Tamandua ant-eater (*myrmecophaga Tamandua*), great ant-eater (*myrmecophaga jubata*), the Cape ant-eater (*orycteropus Capensis*), *manis longicaudata* and *pentadactyla*, Siberian marmot (very small), great squirrel of Malabar, and common squirrel, Cape jumping hare, and Australian brown-footed water rat (in the latter animal it is present on both sides, but small). It is wanting in the following:—Flying squirrels, Australian water rats, white-footed rats, great Cape mole rats, Norway rat, black rat, beaver, *spigurus insidiosus*, hares, and rabbits. In one specimen of the hare, the epitrochlear foramen was present on both sides.

In the Alpine marmot the epicondyloid foramen is present on the left side only. In the *cyclothuris didactylus* the epicondyloid perforation occupies the middle of the outer border of the shaft of the humerus.

In the thylacine (two specimens) the epicondyloid foramen is present on both sides.

In the true and great kangaroos it is wanting. In the ursine dasyurus it is present on the left side only. In the long-tailed dasyure it is wanting. In the *phoscogale flavipes* it is present on both sides, also in the banded myrmecobius and bandicoot; in a skeleton of a species of *didelphis*, Virginian opossum, Cook's phalanger, long-tailed petaurist, and koala. In the flying opossum there was only an epicondyloid process, as in the female human subject already described. In the following animals the epicondyloid foramen is present on both sides, namely:—Rat-tailed potoroo, rat kangaroo, Bennett's kangaroo, vulpine phalanger, echidna, platypus, and mole.

Inferences to be deducted from the foregoing.

1. That the epicondyloid foramen is, as a rule, peculiar to the lower monkeys, the carnivores, etc. Its presence in the human subject is strange.

2. That the epitrochlear foramen, though occasionally found in the higher quadrumana and man, yet its existence in these animals is evidently nothing more than accidental tracings of a bygone condition. This view is strengthened by the fact that in the two specimens of the lower types of human individuals it is present exactly as in the gorilla. It is not present in the skeletons of the chimpanzees in the Hunterian Museum; but on examining some of the bones belonging to the separate series, the epitrochlear foramen was present in one (5083 D) on the left side only (female chimpanzee), and in another specimen on both sides; the left perforation being, however, much larger than on the right side. In the humeri of five other specimens there was not a trace of this epitrochlear foramen.

It is also subjected to irregularity in the gibbons (*vide* before) in the separate series. The epitrochlear hole was present on both sides in one, and wanting in two others.

In the humeri of three orangs in the separate series the epitrochlear hole was present in one, and only on the left side. My object in this paper is simply to give an account of the variations which these foramina exhibit in the mammalian skeletons contained in the Hunterian Museum. Professor Flower's admirable work on osteology contains a thorough and accurate description of the bones of all the mammalia. It has not been the intention of that author to describe irregular, but average osteology, and in that he has more than amply succeeded. (g)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

ANEURISM OF POPLITEAL ARTERY—FAILURE OF PRESSURE—CURED BY LIGATURE OF FEMORAL.

(Under the care of Mr. WOOD.)

[For notes of the following case we are indebted to Mr. Roche.] Joseph D., aged 26, bootmaker, admitted June 22. Has been in present occupation eight years, and has been accustomed to sit for several hours a day on a low stool, with the legs acutely flexed upon the thighs, and having a boot (upon which he was working) fixed between the knees. His health has always been good. The swelling in the popliteal space, for which he is admitted, came gradually; first noticed it shortly before Christmas, 1870, when it was about the size of a bean. He felt it beating, but suffered no pain nor inconvenience in walking. The swelling slowly increased till three months ago, when it had reached its present size. About that time the calf began to swell, and there was numbness of the leg, and any long walk caused a feeling of weakness in it. Only one month ago actual pain was felt, and only within the last week has there been serious difficulty in walking. On admission a pulsating tumour about the size of a Tangerine orange was observed. It was abrupt in its upper outline, while below it shaded off more gradually. The tendon of the semi-tendinosus crossed over it internally. It was very tense, and the impulse very marked, ceasing on compression of the femoral artery, when the sac became flaccid. There was one inch difference in the circumferential measurements of the two knees, while the calf of the affected leg measured two inches more than the other. The veins of the affected leg were noticed to be more conspicuous than those of the other, and there was slight œdema over the tibia. No sensible difference in the pulsations of the posterior tibial arteries was observed.

June 26.—Pressure applied to the femoral artery by means of a Signoroni's tourniquet fitted with double compressors. The patient only bore it for one hour.

28th.—Pressure applied for four hours and a half.

29th.—Pressure applied for two hours.

July 1.—Pressure applied for three hours.

2nd.—Pressure applied for four hours. The patient suffers considerable pain from the use of the tourniquet.

3rd.—A broad strip of washleather, spread with soap plaster, was applied along the course of the artery, which gave a better surface for pressure, the pads slipping less when once adjusted. Compression about four hours and a half.

4th.—Compression for six hours and three-quarters.

5th.—Compression for eight hours. The tumour feels firmer. The patient can bear the pressure much better since the washleather was put on.

8th.—The patient manages the compression himself—alternating the pressure. He averages nine hours a day. Ice-bags applied to the tumour, but discontinued on account of the pain produced.

10th.—Compression eleven hours.

20th.—Compression on an average ten hours daily. The tumour feels firmer, and a cure appeared very probable.

21st.—In the evening it was noticed that a portion of the tumour was more prominent, and the pulsation was felt to be increased. The tumour had evidently at one point forced itself through a split in the fascia. The skin over this point was of a dark colour.

22nd.—Patient was placed under chloroform, and the artery rapidly ligatured. Mr. Wood pointed out the very slight disturbance to which he had subjected the tissues, and, having washed out the wound with a solution of chloride of zinc to

(g) It is a great pity that this admirable book is not introduced into all the schools as *the* text-book on osteology for Medical students, rather than the mere reviews of human bones described in books on human osteology. The latter are good so far as they go, but the student ought to know something more than human osteology; in fact, he cannot know the latter without some knowledge of the osteology of mammals generally.

stop oozing, brought the edges of the wound carefully together with three sutures; pads were placed on each side of the wound, and over all a carbolic putty poultice.

23rd.—Leg wrapped in cotton-wool. Toes warm. Slight pulsation in sac. Dressing not disturbed.

24th.—Wound has healed in nearly its whole extent by the first intention. There is some tenderness of the glands below Poupart's ligament. Slight redness over the painful part. Wound dressed with unguentum simplex. Poultice over painful spot.

26th.—Pain and redness increased, and there is slight swelling. Wound healthy.

29th.—On pressure, about three ounces of healthy pus made its way by the track of the ligature, and the patient was much relieved. Toes warm.

31st.—Pain, swelling, and tenderness have quite subsided. A little pus by the side of the ligature. Sac firmer and diminished in size.

August 4.—Ligature came away without any traction. An oozing of pus in its track.

9th.—The sinus left by the ligature does not heal rapidly. Granulation flabby. Nitrate of silver applied.

14th.—The sac is less. The knee cannot be straightened, any attempt to extend it being attended by pain. The tendon of the semi-tendinosus stretches very tightly across the sac.

21st.—The sac is diminishing and getting firmer. The leg can be extended better. There is some difficulty in healing the sinus left by the ligature.

September 13.—The wound perfectly healed, and the leg, having been gradually straightened, the patient was this day discharged, walking with a stick. Had the patient been able to extend the leg, he might have been discharged three weeks ago.

LONDON HOSPITAL.

DISEASE OF SPINAL COLUMN—PRÆVERTERBAL ABSCESS—PRESSURE ON TRACHEA—TRACHEOTOMY WITHOUT RELIEF.

(Under the care of Dr. RAMSKILL.)

[Reported by Mr. STEPHEN MACKENZIE, Resident Medical Officer.]

W. S., AGED 6. When the child was brought to the Hospital, it appeared to be dying of suffocation. It was gasping for breath, and the epigastrium and intercostal space were greatly retracted at each inspiration. The sister who accompanied the child stated that it had had an injury to its spine, that it had had a wheezing at the chest for the last few days, and that there were no other children ill in the house, or, that she knew of, in the neighbourhood.

As the child was evidently dying from air being unable to enter the chest, tracheotomy was quickly and skilfully performed by Mr. Arthur Moore, the House-Surgeon. When the trachea had been opened, and a tube introduced, it was still found that air did not enter the chest properly. The child breathed a little better when the tube was removed and the edges of the tracheal opening were held open, but even then but little air entered. Previous to the operation, the intercostal muscles did not act at all, and it is doubtful if they did at all after it. The diaphragm acted very powerfully. The patient survived the operation about an hour.

The mother subsequently stated that about a year previously the child had fallen and injured its spine. It had been under treatment at the Orthopædic Hospital and elsewhere for this ever since. It wore a deal board down the back as a support. It had had attacks of difficulty of breathing for the last fortnight, and these had been more severe the last few days.

The autopsy was made on the following day by Mr. McCarthy. The body was well nourished. There was a large abscess with very thick walls extending from the seventh cervical to about the tenth dorsal vertebræ. Secondary sacs had developed just above the bifurcation of the trachea. There was extensive absorption of the bodies of the upper dorsal vertebræ. One was completely absorbed, and the spinal canal opened into thereby. There was lymph on the anterior surface of the dura mater, and extreme congestion of corresponding part of pia mater. The lungs were emphysematous, and there were patches of collapse at the bases. The left kidney was much congested, and contained a calculus. The incision in the trachea where tracheotomy had been performed was just below the isthmus of the thyroid gland. The left subclavian artery was given off from the innominate, and crossed the trachea but very little below the incision.

SUDDEN DEATH FROM FATTY AND DILATED HEART.

W. H., aged 45, was brought dead to the Hospital. At the inquest it was elicited that the patient went out in search of work on the morning of his death, to all appearances in his usual health. During a shower of rain he took shelter in the lobby of a coffee-house. Whilst there he was seen to fall. When picked up he was insensible, and died on his way to the Hospital.

Autopsy.—Body spare; rigor mortis but slightly marked. Heart: The aortic valves were incompetent, and contained plates of calcareous matter; other valves healthy. Mitral orifice admitted the tips of four fingers; tricuspid orifice, the tips of five fingers. The left ventricle was dilated, its walls slightly thicker than natural; the muscle was soft and not contracted. Right ventricle dilated. The whole of the muscle of the heart was soft, but it did not appear to the naked eye to be fatty. Under the microscope, however, the transverse striæ were in many parts obliterated, whilst in other parts, though the striæ were distinct, fatty granules could be seen running in a linear form along the muscular fibrillæ. The pleuræ were much thickened, and the lungs emphysematous throughout. The kidneys were of moderate size, and their surfaces very granular, and studded with numerous cysts; the cortical substance was diminished. The capsules of liver and spleen were thickened, and the latter organ very small. Dura mater thickened and adherent to the bone. The arachnoid was thickened, the convolutions of brain wasted, and there were cysts in the choroid plexuses.

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Medical Times and Gazette.

SATURDAY, JANUARY 13, 1872.

PRACTICAL HISTOLOGY.

THERE have been few subjects on which nonsense has been more persistently buzzed about of late than on the practical teaching of physiology. The authorities at the College of Surgeons very properly passed a resolution enforcing attendance on a course of practical physiology on all students entering the Profession after a given date. But they refused to give any definition of what they considered a proper course of practical physiology, and so each teacher was left to his own devices and to the advice which was so lavishly bestowed on him by those most ignorant of the practical wants of the student.

In conducting a class of practical physiology, it is quite plain that a portion of the course must consist of demonstrations given by the teacher, and that part ought to be committed to the hands of the student under due supervision. It has been found difficult to tell where the one should begin and the other end; but there has been to our minds one clear rule for general guidance, and it is this: students are sent to us to

make them fit to practise the Profession whereby they are to earn their bread. We are not expected to turn out *savants*. The period assigned for the study of this arduous Profession is rarely over three years, and in this time they have to learn everything relating to it, of which physiology constitutes but a small part. It is, therefore, more important to teach men how to learn for themselves than to try to teach them everything. Throughout the course of study a practical end should ever be held in view; and to spend time in teaching men how to perform elaborate experiments with expensive mechanism is to waste time.

In a course of practical physiology, putting for the moment applied physics on one side, there are two great divisions—histology and physiological chemistry. Neither should be allowed to usurp the place of the other, but, as far as possible, each should occupy a due proportion of the student's time, though it is of one only we now desire to speak. Practical histology is one of the most important branches of Medical education, but it is just one of those which may readily be carried too far, and may easily be converted into a pursuit rather than into a subservient study. A well-thought-out scheme of study must therefore be of the greatest importance to both teachers and taught, but especially to those who are striving to educate themselves after having acquired the smattering which was wont to be taught in many schools. Such a scheme from the well-skilled pen of Professor Rutherford appears in the present number of the *Quarterly Journal of Microscopical Science*. This journal, under the editorship of Dr. Frank Payne, of St. Thomas's Hospital, has just sprung into new life, and the present number contains so much valuable matter, especially to the student, that we strongly counsel him to make himself the possessor of it as speedily as possible.(a)

The two articles to which we now especially refer are that by Professor Rutherford, already alluded to, and one by the editor, on "Students' Microscopes." In the latter Dr. Payne gives a tabular comparison between the microscopes of the various English and the chief Continental makers which are likely to be available for students. Now, on this subject we confess to have very strong opinions—perhaps prejudices. Our rule, both in working and in teaching, is to study simplicity. Now, with one of the larger microscopes of British make—models of solidity, strength, and finish—it takes so long to get to work that with one of simpler construction it is possible to finish an observation before, with the other, one would be ready to begin. Our favourite instrument is a little thing of Hartnack's, which costs but three pounds, and almost resembles a toy, but to whose character we can testify as an efficient and, in every respect, reliable instrument. To this class Dr. Payne does not allude—the Hartnack he refers to is larger, and has two eye-pieces; but for ordinary work we can confidently recommend the smaller model. And it has this advantage: with a tall English microscope one requires to incline the tube at an angle, to study with comfort. This implies an inclined stage, and, if one is working with wet preparations, the fluid surrounding them—serum, salt solution, or what not—is apt to run; but these are so short that one may sit at the table and work with comfort, having all the time a level stage. They have no joint; and, should the illumination most readily available be unsuited for an upright microscope, an inclined plain, with a socket for the foot made of heavy wood, may be got for very little.

A word or two more on the subject of Professor Rutherford's "notes" and we have done. It would be hardly possible to epitomise the paper here, seeing that it is already as condensed as may be; so that we are fain to refer the reader to the article itself. In it he will find directions for a complete course of microscopical study, so far as histology is concerned; and we are bound to say that the course is neither too diffuse nor too contracted—it fairly meets the wants of the student. And though in some respects this course does not correspond with that we are wont to adopt, we are content to let it pass without criticism, only trusting that it may be generally followed.

(a) *The Quarterly Journal of Microscopical Science*. Edited by Joseph Frank Payne, M.B. Oxon., B.Sc. Lond., Fellow of Magdalen College, Oxford, Assistant-Physician to and Lecturer on Morbid Anatomy at St. Thomas's Hospital; and E. Ray Lankester, B.A. Oxon., F.R.M.S. London: J. & A. Churchill. Price 4s. January, 1872.

COMPARATIVE ANATOMY AS A MODE OF FORCE.

The rarity in our columns of a paper bearing on Comparative Anatomy has forcibly suggested itself to us on looking over Mr. Perrin's article in our present issue; indeed, there is not a single branch of Medical education which is so inadequately taught as Comparative Anatomy. The greater the importance which this sublime science attains to in the minds of the general public, and the more eager those outside the Profession are to acquire a thorough knowledge of this subject, the more it is ignored by the Profession. As if a teacher had the power of working miracles, he is expected to embody all that a student is required, not to know—but to hear—in a three months' course. The result is simply that Comparative Anatomy is the most disregarded of all the branches of a student's education. While the history of man is tottering upon the brink of a revolution founded upon this science—while the whole educated world are studying the many admirable works readily comprehended with a little labour—the Medical Profession seem to attach less importance to its study than ever. Our old forefathers in the Profession disgrace us in this respect. They had a profound love for Comparative Anatomy; they resorted to it as a pastime—a pleasure, fraught with the deepest interest. But what discoveries resulted from working in this prolific field even then? What has resulted since it has been more extensively worked by earnest-minded men, from the time of the foundation of the Jardin des Plantes under the bold genius of Buffon and his gifted assistant Daubenton, to those of our own time—Owen, Goodsir, Huxley, Darwin, Flower, Haughton, Turner, Rolleston, Humphreys, and many others in this country, not to mention the vast labours of Continental naturalists? It has become the mistress of all sciences, because it embodies the intimate world of living beings which are playing their parts in each and every sphere of existence. By the knowledge already accumulated, old ideas are being rapidly swept away; the position in nature of man is no longer a mysterious problem. Till now an unknown quantity, it has been—in the opinion of many—resolved at last. Is it not, therefore, imperative that the cultivation of this science should occupy a more prominent part in the Medical student's education? Is it not high time that the threadbare and time-worn method of teaching exclusively human anatomy should become a thing of the past; that the long-discovered human and comparative study should be united and taught as one great whole? The significant facts long ago promulgated as *lusus naturæ*, of variations occurring in almost every human subject—extensively worked out by Professors Wood, Turner, Macalister, and others—find explanation only in animals lower in the scale than man. They tell their own tale of the urgent necessity which there is for students to devote more time to the cultivation of Comparative Anatomy. The time wasted in descriptive lectures on bones—which even a second year's student is compelled to attend, although supposed to know his bones as well as his A, B, C—could be much better employed; nay, the bones of the whole of the vertebrata could be taught and learned in the time that it now takes to dawdle through a course of lectures on human bones alone. The present method of teaching Anatomy to the student is like building a house by beginning with the roof. If the student could attend a course of theoretical and practical instruction on the invertebrata during his first summer

(and let the summer be his commencement of study), and then during his first winter attend a regular course of practical demonstrations on the vertebrata, from a fish to man, he would acquire a basis then worth considering as such. In the meantime, rather than let his first essay be a crude attempt at dissecting a human being, let him first thoroughly master the anatomy of the fish, then the bird, then a dog, then a monkey; and he would be in a better position to understand the anatomy of the human being. But the present method is a relic of a muddled past: it is much like the old way of teaching a language—a few years' cramming of grammar before any knowledge of the materials which the grammar governs!

HEALTH OF THE NAVY.

(*Concluded.*)

On the home station the proportion of admissions from primary syphilis was 42·1; from secondary syphilis 12·8; from gonorrhœa, stricture, and orchitis, 55·5 per 1000, giving a total from venereal diseases of 110·4 per 1000. Compared with the preceding year, there was an increase in the ratio from primary syphilis to the extent of 5·0, and from gonorrhœa of 7·3 per 1000; and a reduction of 3·1 per 1000 from secondary syphilis. It is observed that probably some amount of this increase may be referred to the numerous obstacles that have been thrown in the way of the efficient working of the Contagious Diseases Act. The ratio per 1000 constantly sick, from primary and secondary syphilis, was 5·6, and from gonorrhœa 1·2 per 1000. The average duration of each case of primary syphilis was about thirty-seven days, and of secondary syphilis about forty-one days. It is observed that the majority of the cases were contracted in places to which the action of the Contagious Diseases Act does not extend, and that the Medical officers, without exception, bear testimony to the value of legislation in this direction, and, as a rule, advocate its extension. Deputy Inspector-General Domville, C.B., of the Royal Naval Hospital, Chatham, states "that although an increase in the number of admissions from primary syphilis, as compared with 1868, occurred at that station, it is attributable to increase in the number of men, consequent on the transfer of the Woolwich Division to Chatham; and that comparison with the numbers admitted during the four previous years shows a marked improvement." Staff-Surgeon W. T. Wilson, of the *Duke of Wellington*, expresses the opinion that the arrangement of the Lock wards of the Landport Hospital is defective, both as regards the treatment and examination of the patients, and that the rule of assigning two Lock wards to each of the Medical officers of the Hospital did not appear to him to conduce to the efficiency or discipline of the establishment. Surgeon T. Haran, of the *Pembroke*, states that the cases of syphilis and gonorrhœa under treatment in that ship were furnished by protected towns, as compared with the unprotected, in the proportion of 15 to 14—an anomaly which he explains by observing that prostitutes moving from unprotected places very often succeed in communicating disease in quick succession to several persons before they are detected. Men also contracting disease in unprotected places, extend it in a similar manner; the only remedy for such a state of affairs being, in Mr. Haran's opinion, the application of the provisions of the Act to every town in the United Kingdom. Staff-Surgeon Lilburne, of the Sheerness Reserve, remarks that, "as a rule, the disease contracted in Sheerness was of a more tractable character than formerly, being more amenable to treatment."

The highest proportions of admissions from venereal diseases occurred on the China and Pacific stations; at the former, primary and secondary syphilis respectively caused the admission of 91·4 and 17·4, and at the latter 75·9 and 42·4 per 1000 of the strength. The admissions from gonorrhœa and allied affections on the two stations were respectively 93·6 and 63·9 per 1000. These rates, as compared with those observed during the preceding year, show a reduction in syphilitic disease of 9·1 per 1000 on the China station, attributable, in great measure, to the preventive system adopted at Hong-Kong, and at Yokohama in Japan: while, on the other hand, there was a great increase in this class of disease on the Pacific station, consequent upon more extensive intercourse with Valparaiso, which is a perfect hotbed of disease, no system of surveillance whatever being in existence there. With reference to the results of the preventive system in force at Hong-Kong, there appears to be some difference of opinion among the Medical officers who visited the port. Staff-Surgeon A. Watson, M.D., of the *Galatea*, attributes the great decrease in the number of venereal complaints, when contrasted with his former experience whilst serving on that station, some twelve years previously, to the fact of the Contagious Diseases Act having for several years past been rigidly enforced by the Colonial Surgeon. He also mentions the facility and efficiency with which that Medical officer, with instruments invented by himself, can accomplish vaginal introspection. On the other hand, Surgeon D. Wilson, of the *Juno*, reports Hong-Kong as being still a hotbed of venereal disease, and of the very worst kind. He considers the police regulations for prostitutes to be insufficient, and, in most cases, incapable of being carried out against the women who are diseased. He states, also, that at Yokohama, and other Japanese ports, venereal disease is very rife, notwithstanding the regulations enforced by the Japanese authorities to prevent its spread. Dr. John Breakey, Surgeon of the *Serapis*, is an advocate of general inspections of the men, as a means of detecting disease, as also of inducing the men to apply for treatment during its early stages. He inclines to the opinion that the examinations are not offensive to the men, and says that during two years only one man objected, and that, when examined, he was found to be suffering from gonorrhœa.

Although it is generally admitted that, as respects intemperance, the habits of both sailors and soldiers have of late years considerably improved, Dr. Balfour, in his recent paper before the Statistical Society, has shown that delirium tremens is more frequent among sailors than soldiers. It is a significant and far from gratifying fact that in the Report before us we find it stated that, of the forty-two cases of this degrading form of disease on the home station of the navy, six, or 14 per cent. occurred among commissioned officers. Considering the proportion of officers to men, this preponderance among them of self-induced disease is very striking. The Army Returns do not include the diseases of officers, consequently no comparison can be instituted on this point between the two services.

For the first time, the Statistical Report of the Navy contains separate returns of the marine force stationed on shore. There are considerable difficulties in collecting correct information as to the prevalence of disease among the marines. Some of these are, we believe, attributable to the peculiar nature of the service. The arrivals of marines from foreign stations in varying states of health are very frequent. Those who are in bad health are placed in one of the naval Hospitals, and the others get a furlough in proportion to their length of service abroad. At the expiration of six weeks the sick men are transferred to the books of the nearest battalion, although still in Hospital; and it may so happen, and, indeed, frequently does happen, that they die or are finally discharged without having ever actually joined the battalion on shore. Such a system cannot but complicate and obscure the vital statistics of the force. In the Army Returns, as we understand, the sickness of invalids from foreign stations is entirely excluded from the statistical records of troops serving at home, their invaliding and mortality being entered to the charge of the stations at which the diseases have been contracted. In this manner only can a fair estimate be formed of the relative health of troops serving at home and abroad. The report of each marine

battalion in the volume before us is given separately, and without any uniformity of plan; it is, therefore, only after the expenditure of some trouble and time that one can effect a comparison between any two battalions. We would suggest that, with this object in view, the returns of the marine force serving on shore should be compiled in a tabular form. That this plan would considerably facilitate investigation, and afford means of comparison between the various corps of marines, as well as with troops of the line, will be apparent from the two following tables which we have constructed, showing the comparative prevalence of diseases of the circulatory system and venereal diseases among the two bodies during 1869:—

Diseases of the Circulatory System.

	Ratio per 1000.			Total loss per 1000.
	Admitted.	Died.	Invalided.	
Royal Marine Artillery—				
Eastney, Portsmouth ...	51·5	2·57	24·45	27·02
Royal Artillery in the United Kingdom	13·9	3·16	7·20	10·36
Royal Marine Light Infantry—				
Forton, Portsmouth...	23·6	...	8·52	8·52
Plymouth	34·0	...	·61	·61
Chatham	30·0	1·33	10·86	12·19
Infantry of Line in the United Kingdom	12·3	1·17	4·47	5·64

Primary Venereal Sores.

Ratio per 1000 admitted.

	Royal Marine Artillery, Eastney.	Royal Marine Light Infantry, Forton.	Troops of the Line.
Portsmouth	102	110	62
Plymouth ...	—	85	74
Chatham ...	—	74	41

The remarkable excess of admissions and invaliding, from diseases of the circulatory system, among the Royal Marine Artillery at Eastney, appears to call for investigation and explanation. Staff-Surgeon Jenkins, M.D., C.B., the author of the Report on the Royal Marine Artillery, considers the causes of the greater prevalence of certain classes of disease under three heads—labour, dress, and prostitution. But it appears to us that, however great may be the effect of such influences, they are by no means peculiar to the Royal Marine Artillery and quite fail to account for the results given in the above tables. There can, however, be no doubt that the addition of the diseases of invalids from abroad must have had a considerable share in increasing the apparent amount of disease among the various corps of Marines.

The system of weekly returns of sickness and mortality, which has been in force in the army—both at home and abroad—since 1859, has, we believe, been found to act admirably, and we would strongly urge its adoption by the Medical Director-General of the Navy, among the Marine force at home. We would also advise that in the Naval Returns there should be less divergence from the new nomenclature of disease. We observe, for instance, that diseases of the eye, ear, and nose are included with those of the nervous system and special senses; that diseases of the urinary and generative systems are massed together, and that no distinction is made between gonorrhœal epididymitis and orchitis from other causes; that delirium tremens is returned among unclassed diseases, instead of among the results of poison; also that there is no classification of wounds and injuries, as accidental, self-inflicted, homicidal, etc.; that in one instance, at least, hanging is returned as a cause of death, without mention as to whether it was judicial or suicidal; and that Surgical operations do not appear under a distinct heading as causes of admission to Hospital.

We regret being compelled, by want of space, merely to allude to some of the excellent reports by individual Medical officers, particularly those of the Marine divisions, dockyards, naval Hospitals, the Asylum at Great Yarmouth, and the notes and statistics relating to the boys under training for the Royal Navy in 1870.

THE WEEK.

TOPICS OF THE DAY.

The convalescence of the Prince of Wales may be said to be now established. His Royal Highness has been able to change his apartment, and weekly bulletins are now substituted by his Medical advisers for daily. The statement which appeared in this journal last week—that the local affection which has retarded the Prince's recovery was "the result of the protracted *decubitus*, and of the long stages of exhaustion and debility through which his Royal Highness has passed"—was made on very high authority, and was presented to us with evidence which left no reasonable doubt as to its truth. We have seen that a contradiction has been given to it in some of the daily papers, but on what authority has not been stated. One morning paper "understands" that there is no foundation for the statement; another writes of it as an unjustifiable invention, although it had just stated that the Prince's local affection was believed by his attendants to be the result of pressure, which is what we said. And here we would emphatically disclaim any intention of throwing a shadow of a doubt on the excellence of the nursing in the Prince's case. We are certain that everything which affection and loyalty could prompt, and art accomplish, was done. The inference we drew last week, however, is a just one—that if all the care and skill bestowed on his Royal Highness could not shield him entirely from this sequel of fever, the occurrence of the same sequel in other cases should not be made the ground of complaint, as it often has been against Medical men and nurses.

The scheme for a Conjoint Board between the Royal Colleges of Physicians and Surgeons and the four Universities, to which we adverted last week, is the same in its general features as that on which we remarked last year. The cumbrous and unnecessary machinery of a Committee of Reference for the nomination of examiners is retained. The fee for the conjoined diplomas is to be not less than thirty guineas, to be paid in two or more payments; and students who have matriculated at the English Universities, and have been examined at their Universities in the subjects of the primary examination or examinations, will only have to pass the final examination, and to pay a fee of five guineas, which, however, will not entitle them to the Licence of the Royal College of Physicians or the Membership of the Royal College of Surgeons. To obtain either or both of these diplomas, twenty-five guineas more must be paid. It is unnecessary again to point out that this scheme is open to all the objections of being a partial one, that it systematically excludes the general Practitioner from taking any part in the examination of his own class, and that, so long as the Acts of 1815 and 1858 are in force, it will utterly fail of erecting one portal to the Profession in England.

At the Comitia Majora of the Royal College of Physicians, held on Wednesday last, the opinion of Sir Roundell Palmer, Mr. Denman, and Mr. Devir was read in favour of the legality of the scheme for the Conjoint Examinations submitted to them by the Royal Colleges. It is understood that the Royal College of Surgeons will have to make some alteration in its by-laws in order to carry out the provisions of the scheme.

The discussion which the ill-advised Medical Declaration on Alcohol has raised continues in the columns of the *Times*. It was begun by Mr. Skey and Dr. Risdon Bennett, and it has been maintained by Mr. Skey, Dr. Bree (of Colchester), Dr. Forbes Winslow, Dr. Wilks, and Dr. Lionel Beale. The editor of the *Times* very properly heads the discussion with the old question of "Who shall decide when Doctors disagree?" The history of the Declaration has yet to be written. Dr. Burrows has assured Dr. Bree that he was asked to sign it, but that he does not know how the other signatures were obtained. Elsewhere we have seen that it was produced, on the instigation of an official of a temperance association, by the editor of a Medical contemporary. We should think that the Medical Profession are

obliged to these gentlemen for the mire through which they are being dragged. Not only does the Declaration itself give countenance to an untrue and undeserved libel on the Medical Profession, but it holds up our differences of opinion before the gaze of an amused public, and justifies the keenest satires that have ever been launched at the fallacies of Physic. When will the Medical Profession learn the respect due to itself in its corporate existence? When will its members learn that the columns of a public newspaper are the last place in which their controversies should be aired? One of the latest and most striking outcomes of this unlucky Declaration is, that a proposal is afloat, and several thousands of pounds have been collected, for the erection of a new Hospital, where patients in acute disease are to be treated without alcohol. The Profession, we presume, is to be divided into "Œnopathists" and "Œnophobists," and the great art and science of healing to be made the arena for the combined forces of a new quackery and an old fanaticism.

By the retirement of Dr. Goodfellow, one of the Physicians to the Middlesex Hospital, there is a vacancy for an Assistant-Physician.

DR. DALRYMPLE, M.P.

Dr. Dalrymple, M.P., has failed to obtain a hearing at an open meeting of his constituents at Bath. Dr. Dalrymple has been at the pains and expense of travelling to America to obtain information respecting the best means of curing habitual drunkards of a vice akin to insanity; and, notwithstanding the unexceptionable character of his motives, he returns to his native land only to find himself a victim to the alcoholic element. The constituency of Bath seem to think that one who, from purely philanthropic motives, endeavours to rescue his fellow-creatures from the effects of a miserable habit, partly by a compulsory system of cure and partly by facilitating their own desire to enter an asylum where they may be removed from the temptation of their besetting sin, is, if not an enemy to his species, at all events a destroyer of the "vested interests" of those who profit by inciting to such a state of bondage. Such a spirit might be readily characterised, but its condemnation is too obvious to require any further notice. The publican interest at Bath will not, it is to be hoped, have the honour, at the next general election, of unseating a very useful Member and a liberal-minded philanthropist.

Apropos of the subject of drunkenness, at a quarterly meeting of the magistrates of the borough of Liverpool, the Chairman of the Watch Committee stated that there were in that town ninety-five public-houses, the resort of thieves, prostitutes, and disorderly characters. The names and addresses of the occupiers were, together with instructions for the abatement of such houses, in the hands of certain discreet and intelligent officers of police, who would for the future use every possible means to ascertain whether they could not be brought under the law. Mr. Still, one of the magistrates, said that Liverpool contrasted unfavourably in respect of drunkenness with other towns. There were 14,000 persons charged with drunkenness taken up and incarcerated in the cells of the Liverpool Bridewell in the course of a year; but, as the bulk of them were dismissed upon becoming sober by the head constable, without being brought before the magistrates, no record of their having been there appeared. Mr. R. Gladstone, another magistrate, wished that publicity should be given to the numbers discharged, so that the extent of the evil might be seen, and the facts better known; and, for that purpose, he had come to the determination, individually, to attend at the various gaols on Sunday, during some part of the day, for the purpose of releasing those who had come under the denomination of drunkards, but who had not been guilty of any other breach of the law; and he should endeavour to obtain a list of the names and addresses of the persons so apprehended, and who thus contributed to the heavy taxation to which the ratepayers were liable, with a view to their publication, and thus see whether they could not lessen the evil of which they complained. Either they were dealing with a grievous evil, or not; either they were sincere and anxious to put down drunkenness, or they were not. He professed to be sincere, and would test his sincerity by doing what he proposed. Other magistrates thought Mr. Gladstone's suggestion a good one, and some proposed to follow him in that course. Mr. Robertson Gladstone is a brother of the Premier.

ROYAL COLLEGE OF SURGEONS.

We hear with a regret in which many will share that Mr. Partridge and Mr. Adams are so ill as to be unable to take part in the examinations commencing this day (Saturday); and owing to the vacancy occasioned by the retirement of Mr. E. Cock, the number of members of the Court will thus be reduced to seven. The candidates are much in excess of those in the corresponding period last year. We just learn that the illness of Mr. Partridge is causing great uneasiness.

M. LIEBREICH.

M. Liebreich has been to Paris to see M. Thiers's eyes. According to a telegram, M. Liebreich states there is no cause for uneasiness. We hope that our skilful *confrère* will enable the President to see his way to the settlement of the French political difficulties.

A FALSE ECONOMY.

Dissatisfaction has been felt by a section of the Hackney Vestry with the resolution passed by the District Board of Works in favour of increasing the salary of Dr. Tripe, Medical Officer of Health for the parish, and a discussion on the subject took place at the last meeting of the former Board. Strange as it may appear, after the important services rendered by Dr. Tripe, after the public acknowledgment of those services, and the saving of the rates by his energetic conduct in reference to the last epidemic, the liberal Vestry of Hackney passed the following resolution, by a majority of 26 to 22. Anything more inconsequent than such conduct, and shabbier on the part of a public body, it is impossible to conceive:—"That, considering the high rates in the parish of Hackney, this Vestry views with regret and alarm the continued increase of official salaries by the District Board of Works. In particular, they think the increase recently voted to the Medical Officer of the Board has been determined upon too hastily, and without sufficient inquiry, and they request the said Board to suspend the increase till further information can be obtained as to the duties, emoluments, and stipends of the Medical Officers of Health in other metropolitan parishes."

THE CORONER'S COURT.

The agitation against the coroner's court continues, and at Salford has assumed a very serious aspect. How far the determination of the magistrates to override, as it were, the duties of the coroner may be practicable remains to be seen. Some legislative proceedings must be taken, we believe, before the magistrates will be empowered to determine what are and what are not suitable cases for a coronatorial investigation. However this may be, on Monday last the Salford magistrates had submitted to them a report, drawing the attention of the Court to the holding of unnecessary inquests, and giving notice to coroners that, in future, such cases will be investigated with a view of recommending the Court to disallow payment for inquisitions which in the opinion of the Committee had been held unnecessarily. It is contended that, unless there be reasonable ground for suspicion that the deceased came to his death by violent and unnatural means, there is no

occasion, except in the case of a person dying in gaol, for the interference of the coroner. We venture to say that the dictum of the magistrates would be overruled by an application to the Court of Queen's Bench. The function of the coroner is much more extensive than the Salford magnates seem to believe.

AN UNHEALTHY SCHOOL.

That able and indefatigable public Medical Officer, Dr. Liddle, of Whitechapel, has had his attention directed to the condition of the Roman Catholic Schools at Hammersmith. He reports that the building is wholly unfitted for the purpose to which it is applied, and that the arrangements made for the accommodation of the children are altogether inadequate. The health of the inmates has consequently suffered to a considerable extent, and we are glad to find that several Boards of Guardians who have sent their children there to be educated have determined to remove them without delay. A *public* supervision of many *private* schools would, we doubt not, be attended with most beneficial results.

THE WOMEN MEDICAL STUDENTS.

On Monday the University Court of Edinburgh considered the proposals in reference to the Medical education of women. The Court rejected the proposals, on the ground that two of them involved action beyond the power of the Court, and that the third involved the question of graduation, which the Court did not feel competent to decide. The Court is nevertheless desirous to remove as far as possible any present obstacle in the way of a complete Medical education being given to women, provided that Medical instruction to women be given to strictly separate classes. If the present applicants could be content to seek the examination of women by the University for certificates of proficiency in Medicine such as are granted by the London University, instead of for University degrees, the Court thinks that arrangements for accomplishing this object would be within the powers given to it by Act of Parliament, and would consider any arrangement which might be submitted to it. The University Court is evidently in a difficulty, and proposes a solution which will satisfy neither party.

PRESENTATION TO DR. TURNBULL.

On Friday last an interesting ceremony took place at the Huddersfield Royal Infirmary, on the occasion of a presentation to Dr. Turnbull of a splendid testimonial, as an evidence of the high esteem in which that gentleman was held by the subscribers. The testimonial consisted of a timepiece, épergne, and salver. The timepiece is of black marble, with external silver pillars and fittings, and surmounted by a representation of the Good Samaritan, in oxidised silver. The épergne, which was decorated with fruit and flowers for the occasion, is of solid silver, seventeen inches in height, and beautifully chased. The salver is twenty inches in diameter. There was a very large and influential gathering of the subscribers, and Mr. J. C. Laycock, President of the Institution, was in the chair. The presentation was made, accompanied by a neat speech from the chairman, and acknowledged, in a very eloquent speech, by Dr. Turnbull.

"THE DUBLIN QUARTERLY JOURNAL OF MEDICAL SCIENCE."

The proprietors of this ably conducted journal have, in accordance with an intention which they have long had under consideration, altered their arrangements, so that the journal shall appear for the future as a monthly, instead of a quarterly publication, under the name of the *Dublin Journal of Medical Science*. The first number in the new form is now before us, and bids fair to preserve the character it has maintained since its commencement in 1832. The editorship is still in the hands of Dr. James Little, who has conducted the journal for the last three or four years. The present number contains "Notes on the Treatment of Small-pox," by Dr. Stokes, which, during the present prevalence of that disease, will be found of much value, particularly the remarks on the employment of local means—such as poultices for the exclusion of air; the maintenance of a moist state of surface, and the lessening of local irritation, as a means of preventing pitting; the influence of local depletion, in some cases, in modifying or even aborting the pustular eruption; and the beneficial effect of the warm bath, as recommended by Hebra. Dr. Stokes states that no danger attends the employment of the bath, and in asthenic cases stimulants can be freely used. In the Vienna Hospital, patients have been kept continuously in the bath for 100 hours with good effect. The Reviews and Bibliographical Notices of Works on the Diseases of Children will convey much information to the busy Practitioner who has not leisure to study the original works. Dr. George H. Kidd contributes an erudite and practical "Half-yearly Report on Obstetric Medicine and Surgery"; and the number closes with a report of the proceedings of the Dublin Obstetrical Society, containing Dr. Kidd's opening address as President, and two papers on "Transfusion," by the Drs. Kingland, junior and senior, the great intrinsic value of which is materially increased by the subsequent discussion, in which the ingenious and effective method of transfusion devised by Dr. Robert McDonnell was fully explained by that gentleman, and commented on by several others. We wish the *Dublin Journal of Medical Science* a continuance and increase, during the new and many following years, of the success which under its previous name and form it had already attained.

THE ROYAL INFIRMARY, LIVERPOOL.

At the annual meeting of the trustees of the Liverpool Royal Infirmary, held on Monday, the 8th inst., the law which limited the term of service of the Physicians and Surgeons to twenty-one years was so altered as to admit of their continuing in office until the age of 65.

SMALL-POX JOTTINGS.

Ten new cases of small-pox in the Medical relief district of Islington were reported during last week; there were no deaths from the disease during the week.——In the past five weeks there have been in St. Pancras twenty-three deaths from the disease.——In Chelsea, during the last three weeks, three deaths from small-pox have occurred.——At Belfast, last week, fifty-four small-pox cases had entered the workhouse Hospital, against fifteen discharged. Throughout the town generally the disease has prevailed, and amongst the upper as well as the lower classes the deaths by it have been numerous.——The small-pox epidemic rages in Edinburgh with undiminished virulence.——Ten persons from Bradbury were summoned at the Stockton County Sessions for neglecting to have their children vaccinated. Most of the parties belong to the Anti-Vaccination League; six of them were, however, fined, one in 20s. and costs, and five in 10s. and costs, the other six summonses were withdrawn on paying costs, the parties promising to comply with the law at once.——The small-pox epidemic still prevails in Aberdeen to a somewhat alarming extent. The accommodation at the Infirmary is quite occupied. December, as compared with November, showed a large increase of cases in the town, but it is hoped the epidemic is now at its worst. ——Small-pox is very prevalent in the New Brompton district, Chatham. Several cases have already occurred in the families of some of the women employed in the spinning department of the Dockyard, and orders have been issued that the whole of the women and girls are to be vaccinated.——Nine deaths are reported to have occurred in the Poplar Union last week from small-pox, and eight new cases brought under notice. There were at that time seventeen small-pox patients under treatment

in North-street Infirmary.——It was reported that at Homerton the Vaccination Act did not appear to be any better enforced now than formerly, for a great part of the cases admitted to that Hospital were found to be unvaccinated persons.——In the Limehouse district twelve deaths had occurred from small-pox during the past four weeks, and ten fresh cases had been reported.——At Berlin, from the 3rd to 4th inst., thirty-seven persons took the small-pox, and twenty-one died.——At Plymouth, in consequence of the spread of small-pox, the South Devon Hotel has been prepared for the reception of patients. This was opened on Saturday last, and fourteen persons suffering from the disease were taken into it. There are altogether twenty-five beds; thirteen new cases are reported, and three deaths.——Small-pox is on the increase in Dublin; upwards of twenty telegraph clerks are suffering from the disease. An application has been made to the Lord Mayor, and a deputation to the Lord Lieutenant, to procure the unoccupied portion of Grangegorman Prison, for the purpose of a home for convalescent small-pox cases.——Thirty-one deaths from small-pox occurred at Wolverhampton during last week, which is a decrease of four on the previous week.——At Milton-next-Sittingbourne small-pox continues to increase. The infected district is in close and constant communication with Chatham and Sheerness. There is no building in the town capable of being adapted for a Hospital for the sick.——There are some cases of the disease at Sittingbourne, but no fresh cases have occurred in the past few days.——In the Holborn district Dr. Gibbons reported to the Board, on Monday, that twelve fresh cases of small-pox had occurred in the district since their last meeting, three of the patients being unvaccinated. Eleven were removed to the Hampstead Small-pox Hospital.——Ninety-one deaths from small-pox occurred in the metropolis last week, against ninety-seven the week before.——It is stated on authority that at present there are 600 cases of small-pox at Halifax.——Charles Washington Nye, of Chatham, was fined 20s. and costs by the Rochester magistrates, on Tuesday, for about the sixth time, for neglecting to have his child vaccinated. Mr. Buchanan, who prosecuted, said Nye always went to prison, and his family were sustained by the Anti-Vaccination Society. It was, however, very necessary for the guardians to attend to this matter now, as he would be afraid to say how many people were suffering from small-pox in New Brompton, which is within the district.——Dr. Aldis, of St. George's, Hanover-square, reported two cases of small-pox—one of a child, aged 2, vaccinated in the inwards, removed to the Hospital; the other vaccinated in the out-wards.——Small-pox has been steadily increasing in Scotland during the last four months. The last monthly report of the Scottish Registrar-General states that in the eight principal towns there occurred 47 deaths from small-pox in September, 88 in October, 157 in November, and 354 in December. The small-pox deaths for the month, therefore, constituted 11·4 per cent. of the total mortality. In Dundee 38·8 per cent. of the deaths arose from this disease, which was especially fatal in the Lochee district; in Leith, 31 per cent.; in Edinburgh, 17·3; in Aberdeen, 7·6; in Perth, 7·1; and in Glasgow, 1·6 per cent.; while in Paisley and Greenock no deaths from that disease were registered. Thus it will be observed that the disease has been most prevalent in the towns on the east coast of Scotland.

VITAL STATISTICS OF QUEENSLAND, 1870.

The Registrar-General of Queensland has just issued a volume which almost bears comparison even with the reports of the United Kingdom. It is an able and exhaustive document, and is creditable to the public officer who has issued it. From an immense amount of information contained in it, we select the following facts, which are interesting as showing the vital progress of a colony which one day promises to be amongst the foremost of the "jewels of the British crown":—The population of the colony on December 13, 1870, was estimated, after careful consideration, at 115,567, of which 69,629 were males and 45,938 females, showing an increase over 1869 of 5670 persons, or 3058 males and 2612 females. The total number of deaths in 1870 was 1645, or 1060 males and 585 females. Compared with the deaths in 1869—viz., 1761—this gives an absolute decrease of 116. Of these, 416 died of zymotic diseases, 188 of constitutional diseases, 539 of local diseases, 246 of developmental diseases, 212 from violence, and 44 from unascertained causes.

FROM ABROAD.—SPECTRUM ANALYSIS APPLIED TO PRACTICAL MEDICINE.

Dr. Waterman recently delivered an admirable address before the New York Academy of Medicine upon "Spectral Analysis applied to the Practice of Medicine." It has since been published in the *Medical Record*, and we make a few extracts. Speaking of the minuteness to which the analysis can be carried, Dr. Waterman supplies the following illustration:—

"One word regarding the extraordinary delicacy of the spectrum test, which far surpasses every other test previously known to us. To give you an idea of its sensitiveness, let us take one pound of common salt, and divide it into 500,000 parts. One of these minute atoms of matter is called a milligramme. The experienced chemist is enabled to weigh such a minute particle only with the most delicate scales and with extraordinary care and acquired dexterity. But with this performance he has arrived at the limits of possibilities. And now let us divide again one of these minute particles into 3,000,000 parts, and we obtain an atom of matter so minute that the human mind is unable to form any conception of it. Yet we can demonstrate its presence by the spectrum test with the utmost certainty and ease. The dusting of a book in the remotest corner of this room will immediately cause the sodium to dart forth with its brilliant yellow line, and thus reveal the presence of this metal. This delicacy of reaction is not confined to sodium. Lithium gives a reaction with a $\frac{5}{1000000}$th part of a milligramme; strontium with a $\frac{5}{100000}$th part of a milligramme. In the ash of a cigar moistened with hydrochloric acid and held in a flame we obtain simultaneously the spectra of sodium, potassium, lithium, cæsium, rubidium, and calcium."

Dr. Waterman pursues the subject of the spectrum analysis of the blood at considerable length, and, after detailing some of the properties of hæmato-crystalline or hæmo-globine, goes on to say,—

"The possibility to measure the vital force is certainly a matter of the greatest importance. True we can measure the temperature, count the pulse, and by practice learn to appreciate its oscillations, its volume, and other peculiarities. But are the pulse and thermometer absolutely reliable? What experienced Physician has not witnessed in inflammatory conditions—such, *i.e.*, as peritonitis, meningitis, and others—a compressed, small, wiry pulse, which would lead the unwary to administer stimulants to the imminent danger of the patient, when after a moderate abstraction of blood the pulse would quickly rise to great strength. Let us confess that we are often in doubt whether a case is truly the result of anæmia or otherwise, forcing us to temporise when the fleeting moments are extremely precious. How welcome to us is in such moments the information which the spectrum test is so well able to impart.

"Spectrum analysis is suggestive as to the proper treatment of abnormal conditions depending upon permanent or temporary alteration of the blood-crystals. We understand now how it happens that when a man has inhaled the poisonous fire-damp he may be brought to the surface alive, may linger on for days, and yet is beyond the possibility to recover, even if he were plunged into an ocean of oxygen. Such was the condition of many of the victims of the late accident in the collieries of West Pittston. In these cases the crystallisable ingredient of the blood had been affected. We know now that the act of breathing is not a mechanical but a chemical act; that hæmato-crystalline alone possesses the marvellous capacity to attract and fix the oxygen, loosely indeed, so that it may as easily be exchanged for carbonic acid. . . . . We know the strange and fatal affinity of hæmato-crystalline for carbonic oxide and other irrespirable gases, which, once attracted to it, form inseparable alliances held in deathly embrace, use up all oxygen, so necessary to the animal economy, to satisfy their own wants, . . is the

case when sulphuretted hydrogen is inhaled; or the deathly messenger deprives the hæmato-crystalline of its power and capacity to absorb oxygen, and to convert the hæmato-crystalline into oxyhæmato-crystalline, as is the case when carbonic oxide is inhaled; or both effects occur at once—when, for example, prussic acid has been brought into the circulation. . .

"I have spoken of transfusion in these and other cases, where the vitality of the hæmato-crystalline has been suspended or destroyed. This operation is not free from danger. It requires proper mechanical means, not accessible to all, and neither the instruments nor the blood may be at hand when wanted. It also requires experience which not every Physician may be able to gather. In view of this, I propose to give the hæmato-crystalline internally, not alone in poisoning with gases, but also in cholera and typhus, which affect the integrity of this life-sustaining substance. Solutions of this salt may be substituted where transfusion is practised, or a small quantity may be hypodermically injected. It can now be purchased in quantity, and experiments should be instituted to test the correctness of my proposition, which is at least logically and philosophically correct. As this substance also possesses the respiratory power, it may prove superior to transfusion. Its indestructibility would secure its reaching the circulation in an unaltered condition. But, even if it should undergo a chemolytic change under the influence of the gastric juice, its only possible transmutation would be into hæmatine, which substance, in common with hæmato-crystalline, also possesses the breathing power of the blood, although, perhaps, in an inferior degree."

After describing the spectral appearances produced by hæmato-crystalline, hæmatine, and cruentine, Dr. Waterman continues—

"Being in possession of all the modifications to which blood can be brought by chemical agencies, we are now prepared to understand how this analysis can be applied to Medicine. First and foremost, its adaptation to Forensic Medicine is to be considered. No matter in what manner *bloodstains* have been tampered with—be it by maceration, boiling, acids, alkalies, or alcohol—the spectroscope can tell us all about them. Where no change has been attempted, we can show the well-known blood bands; where boiling has been resorted to, we know that the hæmato-crystalline has become coagulated, and we must obtain the hæmatine tests; so, where acids and alkalies have been employed, we do well to use the cruentine reaction, with its characteristic bands. We have already adverted to the fact that hæmato-crystalline preserves its integrity almost for ever, and that we can always demonstrate it spectroscopically. You may interrupt me by claiming that a good microscope will demonstrate blood equally well. To this, however, I demur. I am no stranger to the microscope, and know, in the first place, that the defining power of the best instruments falls far below the response of the spectrum test. But it is entirely useless when blood has been acted upon by the various chemical agents above enumerated, and where the corpuscles have been disintegrated and destroyed, leaving no characteristic by which the microscope could definitely demonstrate blood.

"Spectrum analysis has thrown light upon the nature of *bile* in a search, and made us acquainted with many of its results of decomposition. Normal bile is nearly devoid of power to affect the spectrum, and this negative quality becomes a matter of great diagnostic value. . . . . Satisfactory results have been obtained from spectral analysis of the *urine*. The presence of hæmato-crystalline or hæmatine is, of course, easily detected. In diseases in which an extensive destruction of blood corpuscles takes place, I have repeatedly discovered a beautiful band near F, at the commencement of the blue part of the spectrum. When this band becomes visible in the urine, it indicates gravity of disease, and is a landmark to the Practitioner, informing him that the vital powers of the patient are fast breaking up and passing away. . . . The spectral appearances of urine in *cholera* deserve our special notice. The early urine of patients under the influence of this terrible malady contains a peculiar principle, which, under the action of certain chemical agents, has the property of generating a blue and a red colouring-matter. These pigments give peculiar absorption-bands. The blue pigment differs in a most decided manner from the blue pigment which is derived from indican. It differs also from the blue pigment derived from bile; but bears resemblance to the alkaline alcoholic solution of hæmatine. The spectrum test may therefore be applied to diagnosticate true endemic cholera from the urine of cholera patients. We have also peculiar absorption-bands characteristic of cholera stools—the so-called 'rice-water' dejections. The spectrum resembles that of blood, but differs from it sufficiently, so as to distinguish one from another for practical purposes. These bands are not produced by any other evacuations known, and we have therefore in them a diagnostic sign of the highest value to distinguish in doubtful cases sporadic cholera from the true Asiatic disease. The source of this pigment in cholera is probably the hæmato-crystalline, split up and morbidly charged by the destructive chemolytic power of the cholera poison.

"The spectrum has also thrown considerable light upon the cause of some of the symptoms in *Bright's disease*, hitherto little understood. We all know that uncontrollable retching and vomiting is often a constant symptom in chronic renal disease. This is probably produced by two new bodies, discovered by Dr. Thudichum. They are decomposition products, derived from urochrome,—viz., omicholine and omicholic acid—and are formed within the economy in certain diseases of the kidney. They possess highly nauseating and emetic properties, and probably cause that uncontrollable irritation of the stomach, especially in cases where, by an irrational treatment, salutary evacuations have been repressed, and the task to relieve the system of this noxious product has been thrown upon the stomach. These bodies can be readily demonstrated by the spectrum test. Uromelanine, a decomposition product from urine, can also be easily detected. It is often coincident with melanotic disease, and points at grave disordered assimilation and imperfect decarbonisation of the blood. A substance always found in connexion with it is paramelanine. This is an interesting body, as it yields to the spectroscope characteristics of cruentine, thus revealing its true origin from the blood.

"Spectrum analysis has recently been employed in experiments to demonstrate minute quantities of *vegetable poisons* and their alkaloids—such as strychnine, veratrine, atropine, and others. The experiments, although not completed, are promising very interesting results. Metallic poisons—such as arsenic, copper, antimony, lead, thallium, and barium—can be most readily detected by bringing them into a state of incandescence, when each will show its own peculiar modification of the spectrum. Many of the tinctures and solutions of narcotic poisons give characteristic absorption bands; and by the aid of the spectroscope we can detect adulterations of wine and fermented liquors, as also the age of wines and the quality and purity of fixed and volatile oils."

SMALL-POX AT WOLVERHAMPTON.

This frightful disease is raging at Wolverhampton. The first death from it, says the *Wolverhampton Chronicle*, was registered in the week ending June 10. By the end of August six deaths had occurred. During the month of September eleven deaths occurred, making a total, to that date, of seventeen. In October, twenty-nine deaths from small-pox were registered, and the epidemic spread rapidly. In November, eighty-four deaths were registered, and in December 154, making a total of 284 deaths since the commencement of the epidemic. The deaths from ordinary causes are much above the average. If we deduct the 267 deaths from small-pox during the last quarter, the death-rate from other causes is 31 per 1000; the usual average being about 21 per 1000. In other words, the number of deaths registered during the last quarter of the year was fully one-third more than the average, exclusive of the mortality from small-pox.

It is satisfactory, however, to know that in the week ending January 6 the small-pox was fatal in only thirty-one cases, against thirty-five and thirty-seven in the two preceding weeks. It seems that the Town Council of Wolverhampton (spite of the fact that small-pox had raged in Paris, then in London, and that it was sure to spread to other neglected towns) had done little to protect their fellow-citizens till, in December last, they passed a resolution authorising all Medical men in the town to vaccinate and revaccinate all comers, and offering payments of eighteenpence and one shilling respectively for such operations. This brought down a letter from the Medical Officer of the Privy Council, and a visit from Dr. Ballard, one of the Government Inspectors, who was present at a meeting of the Town Council on Monday last. Mr. Simon tells them that—

"Sufficient provision is made by the Vaccination Acts for gratuitous public vaccination and revaccination by officers

appointed by the guardians of each union, and that public vaccination is not likely to be facilitated, or made more useful, but rather, on the contrary, to be hindered, in Wolverhampton by the Town Council also undertaking to provide it; that the interests of the public health will be better secured by the entire arrangements for public vaccination being left to the guardians, while the corporation exercises its powers of providing Hospital accommodation, and seeing to the disinfection of houses and things."

The debate that followed was curious, and, on the whole, creditable:—

Councillor Turton, after showing that vaccination at the hands of a public officer was expressly defined not to be a receipt of poor-law relief, said that out of 2360 children vaccinated in Wolverhampton last year more than 2000 were vaccinated by the public vaccinators, to whose stations the children were taken. Seeing that the organisation for the performance of vaccination was perfect, he did think the action of the Council in giving a general order to the Medical men to vaccinate at the expense of the Corporation was indiscreet, and calculated to injure the cause of vaccination and bring it into disrepute. He believed that during the past week there had been more reckless vaccination performed in Wolverhampton than for a long period. He himself had seen children of three, four, and five years old, who, though bearing the marks of efficient primary vaccination, had been revaccinated, which experience taught was quite unnecessary, and therefore a simple piece of wanton cruelty. During the small-pox epidemic in Wolverhampton there had been no case of a child vaccinated in infancy suffering from the disease before the age of puberty; yet he knew scores of children of the tender ages of four, five, and six, who had been revaccinated at the cost of the Corporation. There seemed conclusive evidence to prove that one successful revaccination afforded almost absolute protection against small-pox, yet he knew people who had been vaccinated for the third time at the expense of the Corporation. Another objection to the resolution of the Council arose in this way. If private Medical Practitioners were called upon to do revaccination to any extent, they had not a sufficient supply of children primarily vaccinated to enable them to practise vaccination from arm to arm, and the use of stale lymph was calculated to bring vaccination into discredit. In connexion with the public vaccinators there were officers to send unvaccinated children to their surgeries, so that they were able to keep up arm-to-arm vaccination, but the private Medical men were not in this favourable position, and he would assert that much of the vaccination performed during the past week had been reckless, panic-stricken work, which, if continued, was likely to do more harm than good. One of the public vaccinators, during the past week, had vaccinated something like 1000 people, for whom he would be paid by the Board of Guardians and he would also charge the Corporation.

Councillor Dr. Smith, one of the public vaccinators, said that although a bill which had been issued showed that people who had been revaccinated would not take the small-pox, yet numbers of persons who had been revaccinated flocked up to the surgeries to be done again. The offering of a fee by the Council was not necessary, because the public vaccinators were paid by the Board of Guardians, and if the notice had been issued without the resolution as to payment by the Corporation, the good effect would have been the same. The public vaccinators alone had the supply of lymph necessary in this time of emergency, and the authorising of all the general Practitioners to vaccinate at the public expense did no good, because they had no fresh lymph, except what they got from the public vaccinators.

Councillor S. Lloyd said he considered that the remarks of Councillor Turton reflected much on the Medical men in Wolverhampton; but he would appeal to the conscience of any honest man, whether Medical Practitioner or not, to decide whether a Medical man, if a child were taken to him to be revaccinated and it did not want doing, would not say so plainly. For a long time the public looked coolly upon revaccination, though it was recommended from the pulpit and in other ways, but, in one week after the issuing of the Corporation handbills, 1000 persons were revaccinated by one Medical man. He should like to ask Mr. Turton how many were revaccinated in the same time before the notice was issued.

Councillor Willcock expressed his surprise at the arguments with which Councillor Turton had supported his motion. In the first place, he had reflected on the Medical Profession. Now, although he (Mr. Willcock) had not the highest opinion of them, he had never gone half so far as Mr. Turton had done that day. What would be the effect of his speech? Tell him that the working-man would go and be revaccinated after an authority like Mr. Turton had stated that the manner in which the operation had been performed during the past week was a disgrace to the Medical Profession! That statement he (Mr. Willcock) ventured to say would do away with the good which the Corporation had been endeavouring to inculcate.

Alderman Fowler could not but express his surprise that Mr. Turton, of all men, should have uttered what he (Mr. Fowler) could not help calling a libel on the Medical Profession; for if any man, for the sake of a paltry shilling, would vaccinate or revaccinate a person who did not stand in need of it, and thus risk a child's or an adult's health, he was not only a disgrace to an enlightened, educated Profession, but also a disgrace to our common humanity. He did not believe there was such a Medical man in Wolverhampton; he did not believe there was such a scoundrel—for such he would be who, for such a remuneration, would trifle with the public health; and he threw back the insinuation that there had been any reckless vaccination and revaccination. He believed the Medical men generally of Wolverhampton were as competent as Mr. Turton or as any public vaccinators were to determine these questions; he believed they were desirous of acting honourably and to the best of their ability, and he thought the Council were not entitled in that public room to fix such a stigma on them as one of their own body had done when he imputed to them that they were acting in the manner described for such a paltry consideration. Suppose there was a raging fire in the town, and there was a large number of inflammable buildings around, but before the fire brigade arrived some bold sensible man screwed a hose on the first fire-plug and commenced playing on the flames, but someone said, "Oh, that's not proper—the fire brigade are the proper authorities to extinguish fires, wait till they arrive," and in the meantime let the fire go raging on, and threatening the town! It was something the same with small-pox and vaccination in Wolverhampton. Small-pox was raging, and there were men appointed to do vaccination, but they were not doing it to the extent required.

Dr. Ballard then addressed the Council in explanation of the letter of the Local Government Board. He pointed out that by law the carrying out of vaccination was in the hands of the Board of Guardians, and that the Local Government Board were desirous not only that the quantity of vaccination performed should be large, but that the quality of it should be unexceptionable. Now, to secure a high quality of vaccination, the Local Government Board held it to be necessary that the operation should be performed from arm to arm. Apart from the irregularity which he might be permitted to say the Corporation had committed in passing the resolution, he might state that the arrangements of the Board of Guardians were such as to admit of all vaccination and revaccination being done from arm to arm, whereas the resolution of the Council, while making provision for revaccination by Medical men generally, at the public cost, did not make sufficient provision for primary vaccination, and therefore the Medical men would be unable to obtain primary lymph for use in their operations. Dr. Ballard gave the Council credit for acting from the most humane motives in passing the resolution, but suggested that, as the arrangements of the Board of Guardians are complete, the resolution should be rescinded. Dr. Ballard then spoke of the importance at the present time of the isolation of the sick, and the disinfection of infected houses and things, and pointed out that the law cast upon the Town Council, as the sewer authority, the duty of making the necessary arrangements in these instances. He expressed a hope that all the Medical men in the town would send notice of small-pox cases to the Medical Officer of Health. He learned that at present there was no disinfecting apparatus in the town, but he had no doubt the Sanitary Committee would carry out the recommendation of the Medical Officer of Health on the subject. He had seen the Small-pox Hospital which the Corporation had provided, but he could not say that the arrangements were altogether satisfactory to his eye, and he thought it desirable to have a place ready at all times where they could isolate the first case of infectious disease. Dr. Ballard said he believed that if they had had such a Hospital when the first case of small-pox was imported; if the case had been removed there and isolated, and the earlier cases which occurred by infection had also been removed there; if they could have disinfected everything, and so crushed out the first sparks, there would

not have been the fearful mortality of nearly 300 deaths which had followed. It also devolved upon the Council to provide a proper carriage for the removal of the sick to the place of isolation.

Counceillor Major, as a member of the Sanitary and Subsanitary Committee, said there was not a single recommendation that Dr. Ballard had made which the Committee had not already carried out. He complained that the request of the Committee to the Medical men to furnish information of small-pox cases had been met with the reply in many instances that "they had something else to do," and stated that the disease would probably have been stamped out at the beginning, but for red-tapeism and the clashing of the powers of the Council and Board of Guardians, the latter declining to receive into the infectious wards of the workhouse the first case of small-pox which appeared in the town because the person was not a pauper, although the Committee offered to pay the expenses. The Town Council were the authority to whom the Local Government Board looked for the maintenance of the health of the town, and were the first to whom they sent threatening letters, yet their hands were tied in this manner. Dr. Ballard had not told them whether a third vaccination was necessary.

Dr. Ballard: Let me answer that question at once. It is the opinion of the general Medical Profession, and it is my personal opinion, that a third vaccination is perfectly unnecessary.

Counceillor Major contended that it would be a most mischievous thing to rescind the resolution, which had evidently done a great deal of good.

Councillor Walsh also defended the resolution of the Sanitary Committee, and said that many middle-class people who could not afford to pay for vaccination, and were not willing to go to the public vaccinators, were ready to be vaccinated at the expense of the Council. About 100 people had been to his Medical man to be vaccinated, and that gentleman had referred them to one of the public vaccinators. Their reply was, "We don't care to be vaccinated by the pauper-Doctor."

Councillor Turton stated that though it was said that the public had a great objection to being vaccinated by the public vaccinators, yet it would be found that the great bulk of the vaccination done in the past week had been done by the public vaccinators. He would observe that the large number of re-vaccinations performed last week could not have been performed without a large supply of lymph obtained from other sources. Where it came from nobody knew. What he advocated was vaccination of good quality. He contended that they would do better by steadily revaccinating, according to the supply of lymph from children, selecting the persons to be revaccinated first from districts where small-pox prevailed, than by vaccinating in a panic-stricken manner. Mr. Turton then withdrew his resolution.

REVIEWS.

Lectures on the Principles and Practice of Physic. By Sir Thomas Watson, Bart., M.D., F.R.S., etc. etc. Fifth edition. Two vols. London: Longmans, Green, and Co., 1871.

[concluding notice.]

Throughout the lectures on the Diseases of the Nervous System we meet with numerous proofs of the careful and conscientious revision the author has bestowed on his work; the eye, as it runs over the familiar paragraphs, being frequently arrested by the names of the most recent writers on the several subjects, and finding full acknowledgment of their labours. The admirably graphic pictures of Delirium Tremens remain, of course, as they were, but the subject of the treatment of the malady has been in considerable part rewritten, so as to bring it more into accordance with the less vigorous method of treatment of the day; though we can easily imagine that it may still seem to some writers on the subject to place too much reliance on drugs. The observations of Dr. Ware, of Boston, Dr. Peddie, of Edinburgh, Professor Laycock, Dr. W. T. Gairdner, and others, as to the *self-limiting* character of the disease, are noted; the "felicitous method of injecting the salts of morphia (or other medicinal substances) into the subcutaneous tissue," is acknowledged and appreciated, and the latest drugs used instead of opiates are spoken of. Of large doses of the tincture of digitalis, Sir Thomas says, "I confess to you that, though I have no fear of opium in uncomplicated cases properly watched and regulated, I do not dare to prescribe digitalis in that way. That it has served to effect a speedy cure I do not question; but, in my judgment, it is a hazardous remedy. Its successes we hear of; its ill-fortunes are not so likely to be told." The bromide of potassium, in half-drachm or drachm doses, he considers to be a "perfectly safe remedy," and very efficacious "in restoring the lost blessing—sleep," and he would not hesitate to make trial of it in cases "where the sleeplessness was obstinate, and the use of opiates precluded or ineffectual;" and in the epilogue to the work Sir Thomas says, "Had I known (when preparing the first of these volumes) what I now know about the effects of chloral in procuring sleep, I should have recommended it as preferable to opium in the treatment of delirium tremens."

Speaking of coma, the author, after noticing observations by Dr. G. Johnson, Mr. Jonathan Hutchinson, and the late Dr. Snow, sums up thus: "While sometimes coma is a result of the arrested circulation of the blood, sometimes of defective oxygenation of blood, and sometimes, again, of the addition of some narcotic to the blood, the proximate cause is in every instance identical—namely, a defective oxidation of the nervous tissue." We had nearly forgotten to remark that the author has not omitted to mention the use of the ophthalmoscope as "an avenue to the diagnosis of brain diseases, which is of recent discovery, and of great importance." He says, "Mr. Bowman has assured me that the ophthalmoscope has contributed nothing less to our knowledge of the diseased conditions of the interior of the eye than the stethoscope has to those of the chest; and Dr. Hughlings-Jackson makes a similar estimate of its comparative value for unravelling the complex symptoms of diseases of the brain." And after describing shortly some of the morbid changes observed in the conditions of the *optic disc*, he advises his hearers "to lose no opportunity, while you are *in statu pupillari*, of making yourselves familiar with the sound and the unsound aspects of this significant disc. It is an advantage new to the present generation."

The lectures on Apoplexy and Hemiplegia have been very largely added to and rewritten, and Sir Thomas accepts Dr. Broadbent's theory to explain the fact that, in hemiplegia, the only muscles decidedly palsied are those that move the limbs; while, "those which minister to the special senses, and those which subserve the organic functions of the body, are unaffected"—the "real verdict" being, in Dr. Broadbent's words, that "the muscles which escape are those which act only bilaterally, or in concert with the corresponding muscles of the opposite side." As a specially admirable example of the author's desire to note all recent information, to give due credit to all labourers in a subject, and of his characteristic power of working up the knowledge and views of various authorities into a full, lucid, and graphic statement, we recommend to our readers the lecture on Aphasia. The theories of Broca, Gratiolet, and others are noticed, and the observations and writings of Drs. Sanders, Bateman, William Ogle, Maudsley, Hughlings-Jackson, Wilks, Lockhart Clarke, Charlton Bastian, and Moxon are so laid under contribution as to produce an admirable exposition of the present state of knowledge on the subject. Sir Thomas says, "I refrain from pronouncing any judgment of my own upon these various speculations and opinions, of which I desire to be considered as being, however imperfectly, the mere expositor;" but he does decline to accept or put faith in "the theory upheld by M. Broca and his followers, that the part of the brain specified by him—namely, the posterior part of the inferior frontal convolution of the left cerebral hemisphere—is the seat or organ of language." Nor does he believe "that there *is* any special seat or organ of language in the brain."

We find that Sir Thomas has somewhat modified the view he formerly held concerning the relation between cerebral hæmorrhage and hypertrophy of the left ventricle of the heart. It may be remembered that in the fourth edition of his "Lectures" he said, "Do not fall into the mistake which has been made by pathologists of eminence, of assigning to apoplexy and hypertrophy of the heart, when they meet in the same person, as they frequently do, the relation of effect and cause;" and, after stating that Dr. Hope held that this relation "is one of the best-established doctrines of modern pathology," and that Andral, Bouillaud, and Cruveilhier had expressed similar opinions, he added, "I believe them to be entirely erroneous." Now, after showing that in a large number of cases no such relation does exist, and stating the proposition "that whenever hypertrophy of the left ventricle results from valvular or other disease of the heart itself, or from obstructive disease of the larger arteries, it is not to be considered the cause of cerebral hæmorrhage, should that also happen," he goes on to say—

"Yet there is a form of hypertrophy which is very likely to prove a direct cause of cerebral hæmorrhage. Of Bright's disease of the kidney, when chronic, hypertrophy of the left ventricle, without valvular or other disease of the heart or great arteries to account for it, is an almost constant accompaniment and consequence. How is this?" And then, referring to Dr. George Johnson's paper on the *stopcock* function of the minute arteries, and adopting the theory by which he explains how and why the muscular coat of those arteries is liable to become hypertrophied, Sir Thomas explains how in some cases a real relation of cause and effect does exist between hypertrophy of the left ventricle and cerebral hæmorrhage. "In Bright's disease the blood is unpurified, and while the minute arteries in various tissues, the skin, the muscles, the brain, and other parts, oppose its passage, the left ventricle beats with increased force to drive it onwards. The result is hypertrophy of the muscular fibres of the arteries, and of the left ventricle of the heart. Apply this doctrine to the brain. The arterial stopcocks resist the passage of the unpurified blood into the capillaries. The strong left ventricle strives to force on the blood. The resulting distension of the systemic arteries is indicated by the full and hard radial pulse, and by the evidence of increased arterial pressure afforded by the sphygmograph. There is thus excessive pressure on the whole of the arterial pipes between the stopcocks and the forcing-pump; and in the struggle between the two contending forces, a minute artery in the brain may be broken, and so cerebral hæmorrhage may occur."

Heat-Apoplexy, or Sunstroke, Locomotor Ataxy, and Wasting Palsy are subjects which appear for the first time in these lectures, and are clearly and instructively, though but briefly, treated of.

Among the novelties to be found in the first volume of the "Lectures," we may also mention Exophthalmic Goître, and Mesmerism. Speaking of the latter, Sir Thomas says, "You may desire to know, and you have a right to know, my creed upon this vexed and much-abused subject;" and he points out that of the brain and nerves there are many and various strange conditions which occur, as it would seem, spontaneously, or during the progress of some better-known malady, such as hysteria, catalepsy, ecstasy, trance, *double-consciousness*, and *sleep-walking*. "Now," he states, "whatever condition of this kind may arise thus spontaneously, may also, I believe, be produced in some persons under the mesmeric practisings. Not, however, through any material or occult influence emanating from the mesmerism; but subjectively from the mental attitude (if I may use that expression) in which the person mesmerised is led to place himself. . . . . The phenomena are subjective phenomena. The determining influence is from within as much as, or even more than, from without. Derangements, such as sometimes occur thus in disease, may also sometimes occur under the mesmeric atmosphere, but no other or more mysterious derangements. Thus much I perfectly believe. I believe, too, that sleep may sometimes be conciliated by the monotonous biddings of mesmerism, where drugs might fail to procure it; and that such sleep may become sometimes, and in certain diseases, a mode and instrument of cure. But I go no further. All the transcendental phenomena—the miraculous diagnoses and revelations, the clairvoyance, the prophecies—I class with the spirit-rappings and the table-turnings, as evidences of imposture on the one side, and of miserable credulity on the other, and as alike scandalous in an age and country which vaunt themselves to be enlightened."

The lectures on Tetanus have been revised so as to include the microscopic observations of Dr. Lockhart Clarke and Dr. Howship Dickinson, but not so far as to make any mention of the use of the Calabar bean as a remedy—nor, of course, of either chloral or the nitrite of amyl.

The subject of Neuralgia has hardly, we venture to think, been revised with the care and attention bestowed on so many other subjects, and which it so fully merited.

Sir Thomas charms so well and wisely, that we have been seduced into lingering over his lectures on the Diseases of the Nervous System till we have but very brief time and space left to devote to the rest of the lectures. This we may regret the less, however, as subjects treated of in the second volume will have passed more lately under the author's revision than those in the first, and are therefore still more sure to have been brought up to the present state of knowledge and theory.

It will be observed that in this edition of his "Lectures" Sir Thomas has discarded the terms *cynanche trachealis* and *diphtheritis*, in favour of *infantile laryngitis* and *diphtheria*, or *diphtheritic laryngitis*. This latter malady, which in the last previous edition was very briefly noticed, is now fully described and discussed, large use being made of the writings of M. Trousseau, Sir William Jenner, and the late Dr. Hillier on the subject. "Although the complaint," says Sir Thomas, "includes diphtheritic laryngitis, it has a wider scope, and is more especially and more often, in the outset at least, a *pharyngeal* affection in its local as distinguished from its general manifestation. The proper place for diphtheria in any methodical nosology would be among the specific fevers;" and after full consideration of it he remarks—"We are now prepared for the consideration of a most important question. Is the disease, which has for so many years been called, in this country, the *croup*, and which is attended with a membranous exudation in the larynx, anything else than diphtheria? He believes that it is not, and goes on to explain that, "ever since Dr. Horne's pamphlet on 'Croup' was published in 1765, our writers on the subject have given us the history, the symptoms, and the treatment of acute catarrhal laryngitis, of what I have been describing as infantile laryngitis, with the morbid anatomy of diphtheria; thus confounding together two diseases very different in themselves, and requiring very different treatment." He quotes Sir William Jenner's verdict against the opinion that diphtheria and croup are not essentially the same disease, but accepts the arguments of the late Dr. Hillier against Sir William's belief, and concludes thus: "You will understand that I give in my adhesion to the opinion that croup, accompanied by false membranes in the larynx and trachea, is always diphtheria—whether in the child or in the adult; and that simple laryngitis is never associated with the exudation of false membrane." We must confess to thinking that, unless the term "croup" is to receive a new definition, the majority of English authorities will agree with Sir William Jenner rather than with Sir Thomas Watson in this matter.

When speaking of the treatment of Pleurisy, Sir Thomas gives a decided opinion against the early performance of paracentesis in "simple pleurisy," but no reference is made to Dr. Bowditch's teaching on the point, nor to the fact that methods of performing the operation have been discovered by which entrance of air into the pleural cavity may be effectually prevented.

When discussing the subject of Pulmonary Hæmorrhage, mention is, of course, made of the observations of Niemeyer and his revival of the views of Morton, Cullen, and other older writers; and Sir Thomas Watson observes—"If *tubercular* disease is ever a direct consequence of retention of blood effused into the lung, there must, in my judgment, have been a constitutional predisposition to tubercular deposit."

The subject of Phthisis Pulmonalis is preceded by an inquiry into the morbid anatomy of tubercular phthisis, in which the most modern doctrines concerning tubercle are clearly, though of course briefly, set forth, and our author concludes that, "upon the whole, we must believe, with Laennec, with Niemeyer, with (I think) Drs. Sanderson and Fox, that the yellow opaque tubercle is often merely an advanced stage of the grey semi-transparent granule; but we must also believe that it may occur independently of the granule, and even become its parent." The views of Dr. Andrew Clark also receive due attention; and, when speaking of *fibroid phthisis*, Sir Thomas says, "Upon the whole I think, with Dr. Andrew Clark, that it will be well, for the future, to define phthisis pulmonalis generically, as comprehending all progressive consolidations and circumscribed suppurative degenerations of the lung."

Sir Thomas Watson's history and description of Epidemic Cholera are, as is well known, most interesting and admirably clear, and he has added largely to his lectures on the subject; but we cannot help expressing our regret that he has so unreservedly adopted Dr. George Johnson's views on the pathology and treatment of the disease. However able they are, and attractive from their simplicity, they have not met with anything like general acceptance as yet, and are, we venture to think, still far from proven. At the last meeting of the British Medical Association, Inspector-General John Murray, M.D., stated that of the 505 Medical officers in India whose opinion he collected in 1864, "there were only eight who did not consider the administration of purgatives in the early stage as dangerous. In the reports received from America, similar views of the dangers of purgatives—even castor oil—were entertained."

The lectures on Worms and the Human Parasites have been in great measure rewritten and extended. Notice is taken of *acute or yellow atrophy* of the liver; and with regard to the relation between hepatic abcess and dysentery, it is shown

that, though the connexion between them suggested by Dr. George Budd does undoubtedly obtain in some cases, yet both in this country and in tropical climates abcess of the liver and dysentery may, and frequently do, occur without being connected together as cause and effect.

The lecture on Diabetes appears to us hardly up to the general standard of excellence and completeness of Sir Thomas Watson's work; and we venture to think that the subject of Addison's Disease is too briefly treated.

We might, no doubt, point out more deficiencies in this work, as we might easily point out many more excellencies and beauties; but, take the work as a whole, we have no work on Medicine equal to it in limpid beauty of style, power and vividness of description, and high-minded healthiness of tone. In his graceful little epilogue, Sir Thomas Watson speaks of "working with many interruptions, and the slowness of old age." We are sure that no one can take up the volumes without feeling deeply grateful to him for having, at his time of life, undertaken such laborious work as the revision of his "Lectures" must have been, even though most readers may think it a "labour of love."

NEW BOOKS, WITH SHORT CRITIQUES.

General Report, with Statistical Tables, of the Patients under Treatment in the Highgate Infirmary (Central London Sick Asylum District). By Thomas Stretch Dowse, M.D., Medical Officer.

*** This unfortunate building, which has been the cause of so much heart-burning, is now fairly floated as one of the institutions of the Sick Asylum Board, and, we are pleased to see by the Report, under what seems very satisfactory management. We are well pleased with Dr. Dowse's Report; it is a plain, straightforward, honest statement, strictly confined to the matters which refer to his own immediate sphere, and trenching not, as is too often the case, on the stewards' department. His notes on the varieties of disease which came under his notice are interesting, and they show a tendency which we wish we more frequently saw manifested, to make some use of the vast mass of material at the disposal of officers of such institutions.

Transactions of the American Ophthalmological Society: Eighth Annual Meeting, Newport, July, 1871. New York: Appleton.

*** This brochure contains a good deal that is of interest to the Ophthalmic Surgeon, and the "Report on Ophthalmic Surgery," by Dr. Joy Jeffries, of Boston, is above the average of such *collectanea*. Two of the most interesting papers to the general Practitioner are that on "Gunshot Wound of the Brain, followed by Fungus Cerebri, and Recovery, with Hemiopsia," by W. W. Keen, M.D., and William Thomson, M.D.; and another on "Paralysis of the Trigeminus, followed by Sloughing of the Cornea," by William F. Norris, M.D., Philadelphia.

GENERAL CORRESPONDENCE.

THE MEDICAL PROFESSION IN VALPARAISO.

Letter from Dr. J. Holmes Joy.

[To the Editor of the Medical Times and Gazette.]

Sir,—I learn by the public papers of Valparaiso, November 30, that it is the intention of the Intendant of this province to endeavour to induce, through the agency of one of the Chilian Ministers in Europe, several properly qualified Medical men to come to Valparaiso to settle. The terms which he offers are these: A free passage, and 200 dollars (about £40) a month for three months after their arrival. They are to give their Professional services for a period of not less than three, four, five, or six years, with the express condition of submitting to all the laws, *decrees*, and ordinances which control [*reglamentar*—to lay down regulations for] the exercise of their Profession. By a recent "decree"—October 11—of the present Intendant of Valparaiso, it has been made compulsory for all the Doctors to submit to a weekly "turn," when they are to hold themselves in readiness to serve the public whenever called on, from 12 p.m. to 7 a.m., for an entire week, and this without any remuneration whatever in case of the applicants being personally unable to pay them—in brief, to be what Poor-law Doctors are at home, but without *any* payment! Among sixteen of us, this weekly turn would recur once in two months, and I need not allude to the impossibility of fulfilling it and at the same time doing justice to our own private practice. The utterly arbitrary character of the ordinance, and its entire illegality in a free country, need no comment from me. Holding no public appointment whatever—being simply a Physician in private practice—of course there can be no power but the physical power of police authority which can compel me to any such course. That this is the universal feeling here, is amply proved by the fact that, in consequence of the decree alluded to, fourteen out of the sixteen who constitute all the properly qualified Medical men here actually made a public renouncement of their Profession, and remained "on strike" for ten days, rather than comply with it. They have now resumed their practice, under a private promise of the Intendant not to enforce the turn; but he believes he will be able to get Doctors from Europe, on the terms above stated, to come and settle here for three months' salary, and to conform to such utter violations of their personal liberty, or any other which he may subsequently think fit to decree. Be that as it may, an article has been forwarded by to-day's mail to the editor of the London *Times*, by one of our English Medical men (Dr. Duffy), to put young men on their guard against being inveigled into signing *any contract*. They could not practise here without passing an examination before the Medical Board in Santiago (the capital)—an examination conducted entirely in Spanish. Nor then have they any guarantee of earning a farthing (except by what private practice they can secure) beyond the three months' pay already alluded to, which the Intendant would secure to them. Translations of the article I herewith accompany (translated by myself, for insertion in the Medical journals of Great Britain if you approve it) are being forwarded by the German and French Physicians here to their several Universities for publication, and will be widely disseminated there by the general as well as Medical press. I also forward to you the *Mercurio*, *Patria*, and *West Coast Mail* (English), which contains an account of this subject.

I am, &c.,

J. Holmes Joy, A.M., M.D., Ch.M. Univ. Dub.

Valparaiso, December 2.

(Translated from the *Valparaiso Mercury* of November 30, 1871.)

"Illustrious Municipality,—Considering that Congress will shortly end its duties, leaving no opportunity to promulgate a law which shall define the extent of the obligations which the members of the Medical Profession owe the public, and it being suitable to compile, for the benefit of the said public, the several existing regulations, not only in regard to that Profession, but also with respect to those others which render daily and indispensable services to the locality, I have thought it opportune to formulate a regulation about this matter, not doubting that the illustrious Municipality, availing itself of the power (or right) which Act Number 4, Article 103, of the 'Organic Law' concedes it, will favourably approve it:—

"Art. 1. The Physicians, Surgeons, Phlebotomists, Chemists, Druggists, and Midwives who desire to practice their Profession in the department of Valparaiso, shall previously manifest it in writing, presenting at the same time their diplomas to the Intendencia.

"Art. 2. To comply with the preceding Article, a register for matriculation shall be opened at the Intendencia, in which the name and profession of each individual separately shall be written down, and the date of their inscription.

"Art. 3. Every matriculated individual who wishes to absent himself from the department, or suspend the practice of his profession, shall make it known in writing to the Intendencia, in order that his inscription be cancelled, or the time noted down during which he wishes to be absent, that the proper steps may be taken accordingly.

"Art. 4. Twice a year—in the months of January and July—all those actually engaged in practice shall hold one or more meetings, to be presided over by the delegate of the 'Protomedicato,' in which the prevailing diseases shall be considered, and the most simple means which their individual experience suggests in the treatment of them; the proper measures of hygiene which it is expedient to adopt for the greater health of the town; articles of food and drinks which are injurious to health; and, in conclusion, all measures tending to the improvement of the public health, be set forth and detailed. An extract of the result of these conferences shall be forwarded to the local authorities, who shall cause it to be published in the papers, in order that the indications suggested may be known to all, and that the authorities, in so far as they may think proper, may adopt the proper measures.

"Art. 5. Besides these periodical meetings to which reference

is made in the preceding Article, the Medical men in practice shall hold extraordinary meetings whenever the authorities shall require it, in case of plagues or epidemics, and in any other grave circumstances which affect the public health.

"Art. 6. Every Physician practising his Profession is compelled to assist the sick at whatever hour of day or night he may be called, excepting during the hours of his 'turn,' referred to in the following Article, under a penalty of $40 [about £8 sterling (note of translator)], for each occasion on which he fails in this respect.

"Art. 7. There shall be two Doctors on 'turn,' in order to attend to the extraordinary calls that may be made on them during the advanced hours of night—*i.e.*, from 12 p.m. till 7 a.m. The Doctors on 'turn' shall not be allowed to excuse themselves from rendering these services, except on account of some cause made good to the satisfaction of the authorities, and on leaving in their place another Medical man to do their duty. In this case they must give timely notice to the Intendencia. The Doctors on 'turn' shall be exempt from the obligation of assisting any patients during those hours not comprehended therein. Those who fail in whatever is contained in this article incur a penalty of forty dollars.

"Art. 8. In order to avail themselves of the services of the Doctors on 'turn' during the advanced hours of night alluded to, the public will observe the following:—1. Whoever has need of the Doctor on 'turn,' must go to the police-office and have his name and address in writing. 2. This done, an agent of the police will accompany the applicant to the house of the Doctor on 'turn,' and from thence will escort the Doctor to the patient's residence. 3. If the Doctor desire it, the policeman will await him while he makes his visit, and then accompany him home.

"Art. 9. Every Doctor shall be obliged to give whatever information is officially required of him by the authorities in urgent or special cases, or at the demand of the 'City Doctor.'

"Art. 10. The Doctors shall also be obliged, taking it by turns amongst them, to attend daily at the dispensaries, or other public places pointed out by the authority, in order to lend his Professional services to the poor, and give them the prescriptions which their cases may require.

"Art. 11. Any apothecaries' shops which shall be established in future, must be situated at least 300 metres distant from any other already established. The same rule applies to those already existing, in case of their removal.

"Art. 12. There shall be apothecaries' shops in 'turn,' to supply any medicines required by the sick during the night. These shops, their situation, and numbers shall be determined by the authority, as may best befit the public requirements. They shall keep their door open and have a light inside, and have a competent person to make up the receipts demanded. They shall also have bells in a convenient place at the entrance, in order to render it easier to call up the *employés*.

"Art. 13. Each apothecary's shop shall be kept by a qualified apothecary, and the same individual cannot preside over more than one, nor be absent from it without previously advising the authority, and nominating some competent person to take his place.

"Art. 14. There shall also be phlebotomists and midwives on 'turn' for the service of the public in their respective departments. The 'turns' of these professions shall be also regulated by the local authority in the form best adapted for the good service of the public. Those persons who practise these professions shall have at their doors, besides the plate which tells their name and calling, bell-pulls, to facilitate those who need to summon them.

"Art. 15. Those who need assistance from the apothecaries, phlebotomists, or midwives, may require the aid of the police in charge of the district, who shall be obliged to give it, in order to obtain promptly whatever is required for the patient's need. The same aid shall be rendered by the police, in order to obtain ice from the ice-depôts, for those sick who may need it, during the said advanced hours of night.

"Art. 16. The infringers of any of the 'dispositions' contained in this ordinance (who do not incur some special punishment) shall pay a fine of not less than 10 or more than 40, without prejudice to the execution of whatever else the laws of the country may impose. The fines imposed in accordance with this ordinance shall be collected by the police.

"Art. 17. This shall be in force from the moment of its promulgation; all former regulations on this subject becoming null and void.

"N.B.—This means that when accepted by the Municipality it will be at once published, and at once have the effect of a local law."

*** We have received a letter from Dr. Duffy, of Valparaiso, embodying the same facts as the letter of Dr. Joy.

"ANOTHER DISTINCTION IN LINCOLNSHIRE."

LETTER FROM MR. G. MITCHINSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Thanks for the opportunity you have afforded me of repudiating any complicity with the paragraph which recently appeared in the *Lincoln Gazette*. Until I saw the statement in the *Gazette* I was entirely ignorant how many Lincolnshire Medical men had, or had not, signed the memorial alluded to. Immediately after reading the paragraph I wrote to Mr. Garnham, President of the Lincolnshire Medical Society, and informed him that neither directly nor indirectly had I anything to do with its insertion. I also wrote to the same effect to Mr. Broadbent, Senior Surgeon to the Lincoln County Hospital, and, during the day, mentioned to several Medical and other friends how much annoyance I felt on seeing the paragraph in question. In addition to this, I communicated with the editors of the other Lincolnshire papers, and requested them not to copy it. I am, &c.,

Castle Hill, Lincoln, Jan. 10. GEORGE MITCHINSON.

P.S.—Would it not have been more generous if your correspondent had communicated with me, before placing me under your active treatment?

ALCOHOL INCONSIDERATELY PRESCRIBED.

LETTER FROM MR. J. W. TURNER.

[To the Editor of the Medical Times and Gazette.]

SIR,—In a letter from Dr. Lionel Beale, in your "General Correspondence" of December 9, under the head of "Alcohol Inconsiderately Prescribed," he states—"No doubt many people would live longer if they drank less alcohol," and then asks—"Can we, by signing an expression of opinion, however strong and unanimously, hope to influence them?" and—"What is likely to be gained by some of us coming forward to protest against habits which all people know to be wrong?" To his first assertion, there cannot be a doubt that people would live longer. Speaking from my own experience, after thirty years' practice, I positively declare my opinion that half the untimely male adult deaths (innate phthisis excluded) are owing to the abuse of alcohol; and I judge it incumbent on the Medical Profession, as guardians of public health and well-wishers of their fellow-mortals, to make this evil of alcohol-drinking better known to the said public, more especially at this particular time, when some mode of reform in the liquor trade and licensing system is a matter causing much anxiety and discussion. What an assertion!—half the untimely male adult deaths (innate phthisis excepted) to be put down to the abuse of alcohol!

Let me ask my Professional brethren the cause of a vast amount of kidney and liver diseases, diseases of the brain and nervous system, insanity, paralysis, and idiotcy? From what cause more than half the accidents which fill our Hospitals? What number of suicides occur in the depressing stage following over-excitement of alcohol? How many murders in the non-natural state produced by it—not to mention the many cases of assault which appear before our police courts and crowd our prisons. How many miserable alcoholic dyspeptics apply daily to the Profession for aid, and too often confirm their ill-health by persisting in the use of stimulants that have brought them to their wretched condition? Can we imagine that the public is fully aware of these facts? and that from alcohol, or spirits of wine in small doses, a person is quickly placed in such a non-natural condition as will excite him or her to commit such acts as in their normal state they would shudder to think of? and that such excitants are permitted to be vended at every corner to any empty-stomached or empty-headed customer with a few pence about them? Do the people know that the habit of spirit-drinking grows like a dire disease upon the drinker? Do they know that brandy, gin, whisky, hollands, rum, etc., can be made artificially from alcohol or spirits of wine, and flavouring or seasoning like "Dickens's" far-famed pics; also cheap dinner sherries and palatable port wines? If the English public must have stimulants (and it will), we ought to try and educate the palate to natural ones—namely, the products of fermentation *versus* distillation (the former, when

pure, being non-injurious, save in quantities such as only a very deliberate toper would take)—and then they would but bring him loss of self-respect, and, maybe, render him offensive and ridiculous *pro tem.*, and make him suffer for his excess (headache, indigestion, and *malaise*), from which he would gain a practical lesson, teaching him moderation and sobriety; whereas let him be overcome with the strong products of distillation, then his nervous system has received such a shock, and his delicate organisation such direct injury, that he does not quickly or entirely revert to a normal state. So great a craving and horrid depression possesses him that he almost always resorts to the enemy for relief to his symptoms. Then begins the indigestion of spirit-drinkers, and the varying conditions of animal spirits called "ups and downs"—all the false excitement of the "ups," and all the morose ill-temper and brutality of the "downs." A short course of this kind brings the nervous tremors and that incapacity for sustained mental or bodily exertion without the false prop. This soon tells upon the finances, if not immediately apparent upon the health, and all kinds of shifts and schemes are resorted to for supplies of stimulants and evasion of work, inducing irregularities, often resented by employers; and the spirit-drinker is thus thrown out of his situation or work. Still, he will get his stimulants! and then, if not before, the home has to suffer. Wife and children are made miserable, and his home becomes a silent and bitter rebuke, at best, when the drunkard returns to it. Debt, degradation, disease, and destitution soon follow, and this pest of society throws himself and surroundings upon the funds of the charitable, or charitable institutions, or upon our hard-working, heavy-ratepaying nation. Not a day passes without such sad evidences of the dire evils of spirit-drinking being brought to the direct knowledge of Medical men; and they, of all classes, I think, should give utterance to their opinions on this subject.

We have of late heard the social, judicial, political, moral, and mercantile opinions freely given upon this subject; now let our Profession speak as to restrictions on the sale of the products of distillation—namely, spirits in general, and, what is nearly as bad, fortified wines, or spirits in disguise. Let our Profession express its opinion on the use of Nature's gift—the products of fermentation on the one side, and the evils of the products of distillation by art and man's device on the other.

The exciting principle is the same, you will say—isomeric, the chemist assures us. But is alcohol in natural combination, resulting from fermentation, identical in action with alcohol educted from fermented compounds? and can a mortal quench thirst, or escape the risk of injury, by imbibing spirit or strong spirituous compounds stronger than those produced by the fermentation of the most saccharine juices of fruits, etc.? I judge it is not for us to do more than declare the evils; the remedy must come from another quarter. We can only do our duty to the public in the matter; and when we know that alcohol is a fertile source of so much evil in our land, we ought to speak, and even pray, that some strong measure may be adopted to restrict the sale of ardent spirits, but not the products of fermentation; although happy is the man who can do with or without even these latter. The end to be gained—and I trust Dr. Lionel Beale will with his able pen and ability advocate it—is this, the amelioration of our fellow-creatures, maybe by placing some very heavy licence duty upon those permitted to sell ardent spirits and fortified wines; and, if the lovers of alcohol will have it in full force, let them pay dearly for it, and at least relieve the milder drinkers from the onus of having to be heavily taxed and rated for their selfishness. I suspect, looking at it merely as a matter of finance, the Government gets about ten millions from the spirit duty, and the ratepayers are paying ten times this amount in compensating the evils produced by spirit-drinking, whilst the whole nation is groaning under a sense of moral degradation, and mental as well as physical degeneration.

I am, &c., J. W. Turner, F.R.C.S.

31, Lower Phillimore-place, Kensington.

N.B.—I have just read the excellent letter of "F.R.S." in your number for December 16, with whose sentiments I entirely agree.

A Railway Boon to the Sick.—Lord Lyttelton, Lord Leigh, and other noblemen and gentlemen, are trying to induce the railway companies in the district of Redditch to grant to the holders of out-patients' tickets for the Birmingham Hospital, residing six miles and upwards from Birmingham, the privilege of riding on their lines to Birmingham and back at a single fare for the double journey.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, December 19, 1871.

Mr. Hilton, F.R.C.S., President, in the Chair.

Mr. Spencer Watson exhibited an Ulcer of the Eyelid, removed by Dr. Swift Walker, from a male aged 68. The man had long suffered from a pimple in that vicinity, which he picked till it began to ulcerate. When the ulcer was removed the glands were not affected, and no deformity followed. The growth seemed epitheliomatous.

Dr. Cholmeley considered the growth was so small it was useless to discuss its characters till it had been described microscopically. (Referred to Committee on Morbid Growths.)

Mr. A. T. Norton exhibited a specimen of Ulceration of the Trachea undergoing repair, and a sloughing cavity in its vicinity. The patient had been ill four months, and had brought up blood. On examination by the laryngoscope, the trachea was seen to be ulcerated, and the voice was rough. The breathing was also hoarse; but he improved under treatment. He died quite suddenly. The other parts were healthy, and there was no history of syphilis.

Dr. Southey narrated the case of a female patient who came to St. Bartholomew's Hospital, cachectic and losing flesh. Two years previously she had been stout. By-and-bye she began to vomit and suffered from flatulence. She had some scars on her leg which were pigmented, but not more than usual. In August she took to bed, and had some diarrhœa; then persistent vomiting began. A diagnosis of ulcer of the stomach was made. She was very taciturn, and was delirious at night. She was fed by nutritive injections, but sank from exhaustion. The viscera were healthy except the lungs, which contained some patches of tubercle. The supra-renal capsules were also enlarged and caseous. The right was the larger. There was no pigmentation of the skin.

Dr. Powell asked if the capsules had been examined microscopically, as disease of the supra-renal capsules of this kind, without bronzing, was rare.

Dr. Southey, in reply, stated that they had been carefully examined: they only gave signs of caseous degeneration.

Dr. Dickinson considered the change here was not identical with that found in Addison's disease where there was a cellular growth. Sometimes the capsules were altered without any bronzing of the skin. (Referred to Drs. Greenhow, Cayley, and Southey.)

In reply to the President, Dr. Southey said the solar plexus was involved, but the semilunar ganglion was not examined.

The President remarked that in one case, where there was no bronzing, he had made the post-mortem for Dr. Addison, and found the semilunar ganglion fatty.

Dr. Peacock narrated the following case:—A man, between 40 and 50 years of age, was admitted into St. Thomas's Hospital, under the care of Dr. Peacock, on December 11, 1871. It appeared that immediately before his admission he was observed to be holding himself up against the railings of a house, and when admitted, though he could not speak, and had apparently lost the use of the right side, he was sufficiently intelligent to be able to protrude his tongue. At first great difficulty was found in getting the bowels to act, but after a day or two, when free evacuations had been obtained, he rallied somewhat, though he never recovered the power of speaking, and his intelligence continued impaired. On the 17th he was evidently sinking; both pupils were small, but the left rather the larger of the two; his eyelids dropped, but paralysis of the left was less than the loss of power of the right; the mouth deviated to the left side; he had entire loss of power over the right limbs, and the right side of the chest moved less freely than the left. There was no distinct stertor, but he was disposed to moan, and his breathing was embarrassed, and there was loud rhonchus in the chest, which entirely masked the cardiac sounds. He could not evacuate the bladder, and the urine removed by the catheter was at first albuminous, and subsequently contained blood. The stools were passed unconsciously.

Dr. Payne narrated the post-mortem appearances. He found a clot in the middle cerebral, and the brain was softened at the middle temporal convolution; the frontal lobe was not so. The softening passed inwards to the corpus striatum. The clot seemed to have been mainly formed *in situ*. The heart was

large, and the pericardium adherent. There were no vegetations on the valves, and the kidneys were granular.

Dr. MURCHISON said the case was of importance with regard to diagnosis. He had seen paralysis from plugging of the middle cerebral without loss of consciousness, though some say that loss of consciousness is frequent.

Dr. PAYNE said in this case the man was hanging on to a railing, and could not speak. When loosened from the railing he fell.

Dr. WHIPHAM said that in such cases the accession of symptoms was sometimes gradual, loss of speech coming on a day or two before loss of power.

The PRESIDENT asked what were the effects of plugging of the middle cerebral as compared with vessels of other parts.

Dr. SCHULHOFF had a case of plugging of the posterior cerebral with similar symptoms to those produced by plugging of the middle cerebral.

Dr. DICKINSON said, with regard to the resemblance of the symptoms of plugging to those produced by extravasation, he had met with several cases where the symptoms were exactly similar. When the basilar artery was plugged, both sides of the body were paralysed, and death speedily followed.

Dr. GOODHART inquired if this was due to arterial disease.

Dr. DICKINSON: No; rather to condition of the blood.

Mr. HULKE thought this explanation was insufficient, as coagulation ought to be general if due to condition of blood.

Dr. MURCHISON said that, nevertheless, it was so in point of fact.

Dr. DICKINSON said in one case the basilar was atheromatous; in the others it was not.

Dr. MURCHISON had reported a case of relapsing fever where gangrene of the lower extremities came on from coagulation in the femoral vessels. There were also plugs in the renal and splenic vessels. The patient died from plugging of the middle cerebral.

Dr. SEPTIMUS GIBBON doubted if there was true loss of consciousness here.

Dr. PEACOCK had often seen less loss of consciousness with extravasation of blood.

Dr. PAYNE next exhibited an altered Bloody Mass from among the Muscles of the Thigh. The patient had heart disease, and the leg had begun to swell. Then a tumour appeared in front of the thigh. It was punctured, but only a little clear serum came away. The mass turned out to be a blood-clot. On examination, after death, it was found that this had altered, just like a clot in a vessel. Outside was a whitish film or membrane; in the middle was a white and crumbling mass. This showed that the influence of epithelium was not needed to induce these changes.

Dr. PEACOCK said this occurred in a boy with aortic and mitral disease. Some vegetations were found in the auricle. There was also renal disease.

Dr. MURCHISON asked if the patient suffered from uræmia, and if the muscle was altered. Did the plugging seem to follow blood-poisoning, as in fever?

Dr. PAYNE said the vessels seemed natural. The muscles were infiltrated, and there was some hæmorrhage into the sub-arachnoid. The kidneys were in a state of acute nephritis.

Dr. PEACOCK said intelligence was impaired, but there was no distinct uræmia. He was better just before death.

Mr. HULKE narrated the case of a girl who came to King's College Hospital with what was supposed to be a medullary cancer. The skin broke, a bloody mass came away, and the girl got quite well. He had, however, seen medullary cancer simulating these extravasations.

Dr. PEACOCK had often seen extravasations in the rectus abdominis in typhus.

Dr. GOODHART showed a Cast of the Intestine from a Woman who had suffered from Constipation, and passed these casts from time to time. They consisted mainly of columnar epithelium.

Mr. AANOTT gave an account of the structure of a Scrofulous Testicle, as a sequel to a former contribution. The growth was almost entirely fibro-corpuscular, like that of a gummy tumour. In the later stages of several forms of diseased testicle the appearances were alike. Either the corpuscles degenerated or they were squeezed aside by the fibrous tumour.

Dr. PAYNE had noticed the same similarity of appearance.

Dr. CAYLEY said that in tubercle there were no vessels, so that the tissue could not develope.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SATURDAY, DECEMBER 15, 1871.

Dr. WOODFORDE in the Chair.

AFTER the usual preliminary business, Dr. STEVENSON brought up a report from the General Purposes Committee on the subject of the unsatisfactory state of the Water Supply, embodying a resolution to the effect that this Association requested the Government to institute an early inquiry into the quality of the metropolitan waters by an independent skilled analyst, in consequence of the probable approach of an epidemic of cholera, and of the uneasiness produced in the public mind by the Registrar-General's reports, especially as all investigation led to the conclusion that there existed a connexion between drinking-water and cholera. The report was adopted.

W. H. MICHAEL, Esq., then gave his views "On Future Sanitary Legislation." After glancing at the unaccountable phenomena of the metropolis being carefully excluded from various sanitary inquiries and reports, he proceeded to ask what were the proper limits of legislation in regard to sanitary measures. Property must, he said, have some laws respecting sanitary matters. It was evident that something more than individual supervision was necessary. One of the greatest difficulties in the future lay in neglect in the past. People had formerly been allowed to do as they liked with their property, and defaulters were often men of influence on the local boards. These men were a great obstacle in the way of sanitary improvements throughout the country. Moreover, after people had been allowed to build houses in a certain way, it was hard to call upon them now to put their houses in a certain condition. The question then arose as to how far sanitary legislation is to be compulsory. Hitherto, he argued, it had been—practically, at least—permissive. The infliction of a small fine was ineffectual. It was plain that the public had a right, in the interests of their own pockets, to say to an owner, "*Sic utere tuo, ut alienum non lædas.*" Besides the difficulty arising from the past, another one also arose where there was only a sparse population, as in country districts. Taking the law (1) as it is, and (2) as it ought to be, Mr. Michael said nothing was more unsatisfactory than the present state of things. There were Acts within Acts, so complicated and so embroiled that even learned judges confessed that they could make no sense out of the enactments on this subject. The Government itself had proved unable to give advice to local boards. The consequence was that in some districts boards had been broken up, and in others action had been paralysed. Act contradicted Act, district overlapped district. Consolidation of sanitary authority had long been urged, and in the last session a great step had been made in this direction. The next thing to be aimed at was the establishment of one local power. Then areas would need rectification in such a way that not political exigencies, but the wants and physical conditions, should be considered. As to sanitary officers, Medical Officers of Health were at present mostly men in private practice, and dependent on the very men against whom they ought to take action. Therefore, except in times of panic arising from an epidemic, their hands were tied, and they limited themselves to removing the more obvious nuisances. It was necessary, then, that there should be one general statute embodying all the various sanitary enactments, and a central authority to supervise their execution. While he approved of what had been done last session in this last respect, he did not think sanitary measures ought to be confined to the houses of the poor; every house in the country ought to be included within their scope. He was also averse to their having any connexion with Poor-law relief. As to the divisions of areas, a fast line could not be drawn; they ought to be determined by their physical condition, their drainage necessities, and the watershed. The areas ought to be large enough to support thoroughly efficient officers. As to the constitution of local boards, and the difference between urban and rural populations, Mr. Michael maintained that a difference, not in matter, but in manner, was needed. There ought to be only one authority in each area, and that authority thoroughly representative. He proposed, also, an intermediate authority of a higher character to hear any appeals on the spot—such as the Metropolitan Board of Works was to the London vestries, whose duty should be to step in when local boards failed to do their duty. He was sorry that in the Bill brought in by Sir Charles

Adderley, based upon the report of the Royal Commissioners, there was no such provision. The deficiency could not be adequately supplied by inspectors sent down from London; their action would come when it was too late. An authority was needed on the spot to prevent in time. Boards of Guardians would not do for this; they had shown their incompetency in the past. The sanitary officers must be thoroughly educated Medical Officers of Health. They must not be, as in times past, merely ornamental adjuncts; they ought to be the moving powers in sanitary matters. They must be men of high intellect, and the area large enough to give them a salary that would enable them to give their whole time to their office. The registration of death and of sickness ought to be under their control instead of being in its present unsatisfactory state. Mr Michael likewise proposed that there should be a Minister of Health as the head of the central authority; that there ought to be a compulsory power for joining districts for drainage purposes; that additional borrowing powers should be given; that the incidence of rates should be modified in accordance with the benefits accruing; that Medical Officers of Health should be armed with increased powers to prevent overcrowding, and to deal with infectious diseases; and that private Practitioners should be compelled to give all necessary information,

Dr. Stallard objected to many points raised by Mr. Michael. He maintained that it would be impossible for any authority to carry out what was against the public opinion of a district. The people must first be educated. He defended boards of guardians from the charge of failure; for how could they act effectually when the law itself was so contradictory? As to an intermediate authority, he thought that unless it had the power of taxation, it would never do. He had not more faith in the sanitary enlightenment of country squires than of boards of guardians. He thought it would be better to go on progressing steadily as they were at present doing. If the central authority could contribute or withhold a certain quota of the expense, that would be far more effective than compulsion. With the latter part of Mr. Michael's remarks he quite agreed. He warned them against centralisation and functionarism. In England it would prove a failure.

Mr. Holland deprecated harsh compulsion. He was in favour of inspectors under the central authority, as being free from all suspicion of partiality and from all local prejudices. Such men would be able to carry their experience from one district to another, and enlighten the sceptical by adducing what was in actual operation. He thought that the difficulty of adapting sanitary measures to various districts arose in great measure from the determination of Parliament to do everything itself, even things it was incompetent to do. He quite agreed that Medical Officers of Health ought not to be in private practice.

Dr. Hardwicke agreed with most of the proposals advanced by Mr. Michael, but did not think it likely Parliament would give that extension of power to Medical Officers which he proposed. He thought they ought to work things as they stood, rather than invent a new cut-and-dried system. If these county boards could be obtained, it would be a great step. The illness of the Prince of Wales would, no doubt, have its effect upon the House, at least during the early part of the session. Mr. Michael might tone down some of his views, and then they might bring these matters before the notice of Government. He thought judgment and tact were among the most necessary qualifications of a Medical Officer of Health.

Dr. Barclay agreed with Mr. Michael in many respects, especially as to the position of Medical Officers of Health. He thought he ought to have under him a number of deputies; and the Poor-law Medical Officers were the best in the world for this. He differed from Dr. Stallard as to legal compulsion. Without it in the background they could never have succeeded, although he advised a sparing use of it. Judgment and moral suasion were among the best qualifications of a Medical Officer. Men specially trained for the duties would not succeed so well as a man of large and practical experience. He was therefore in favour of Medical Officers of Health having some field of practice if they were independent of the districts in which their powers lay.

The Chairman said that the mere possession of compulsory powers was mostly all that was necessary. He was in favour of large areas of operation, and of the registration of deaths and sickness being under the control of the Medical Health Officer.

After some little further discussion, the meeting concluded.

NEW INVENTIONS.

APPARATUS FOR APPLYING HEAT OR COLD TO DIFFERENT PARTS OF THE HUMAN BODY.

(Designed by Dr. ALEXANDER ROBERTSON, of Glasgow.)

These apparatus are constructed for the application of regulated temperatures, from that of ice to the highest that can be borne. They consist of two or more compartments, and have an inlet- and an outlet-pipe from three to four feet in length, through which water is admitted and discharged. The current is regulated by a tap on the discharge-pipe, and may be either constant or intermittent. There is no difficulty in maintaining the temperature of the circulating water to within three or four degrees of a given point. They may be worked either in connexion with a vessel of water which has a tap at the bottom—the end of the inlet-pipe being attached to the top—or on the principle of the syphon, in which case no special vessel is required.

Head Bag.—It consists in some of eight, in others of ten, compartments, each a little more than an inch in diameter. These are arranged in parallel lines over the head, those at the sides being much shorter than the central ones. The whole set of compartments are cemented along part of their under surface to thin vulcanised cloth, which fits the head smoothly, and they are covered externally by thin woollen or waterproof cloth, to which thin vulcanised cloth is stitched or cemented along the margin. The cap is secured to the head by straps under the chin. When sufficiently distended it contains only about eight ounces of water; and if a free current be allowed to circulate, this will all be displaced by a fresh supply, admitted by the inlet-pipe, in less than half a minute. Dr. Robertson states that by circulating ice-water, or a solution of ice and salt, cold is more conveniently and efficiently applied to the head than by the ice-bag; and he hopes that by the use of water at definite degrees of heat a soothing influence may be produced on the brain in certain forms and conditions of disease.

Chest or Abdominal Bag.—It consists of six compartments, which are enclosed in the same way as in the head bag. When sufficiently distended the weight both of bag and contents is less than that of an ordinary poultice. It may be used alone, or on the outside of a light poultice or fomentation. The heat of the two latter agents may be renewed without in the least disturbing the patient, by simply admitting warm water at the inlet-tube, which displaces what is in the bag when the tap on the outlet one is open. Dr. Robertson says that besides preventing patients from being exposed and annoyed by the renewal of the poultice or fomentation, this bag is useful in certain cases of disease when a uniform high temperature is maintained for one or more hours continuously, and he expects that it will reduce hyperpyrexia through the circulation of ice-water.

Uterine Bag.—It consists of two compartments. On the outer surface is a small pouch for a director to assist insertion; and at the sides and ends are little loops, to which a piece of lint may be tied. It is rolled up lengthways, and can then be pushed up behind the neck of the uterus with the greatest ease. After its introduction, water is allowed to flow into the bag, expanding it, and then passes away by the outlet-pipe. Should a moist or sedative fomentation be desired, the lint is previously soaked with water or other suitable liquid. According to the height of the column of water in the inlet-pipe, the bag may, or may not, be fully distended internally.

Dr. Robertson states that this instrument is useful in inflammatory conditions of the uterus, in certain states of uterine cancer, etc., when warm water is circulated; and that in menorrhagia the cold of ice-water, with the pressure of the distended bag, usually stops the bleeding.

Spinal Bag.—This bag is about a foot in length, but it may be longer or shorter, and consists of two compartments which communicate freely below. Along their inner margin they are connected closely together, at intervals, by bands. At the top, the one terminates in an inlet-, the other in an outlet-pipe. As in the other apparatus, the current through this bag may be either constant or intermittent. Besides its obvious use in applying either a low or high temperature to the spine in ordinary inflammatory and painful affections, Dr. Robertson thinks that the effect of maintaining an equable high temperature in such diseases as tetanus, locomotor ataxy, etc., is worthy of being tested.

Throat Bag.—This instrument exists only in pattern. It is anticipated that it will be found useful in laryngitis, etc.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 4:—

Butler, William John, Delamere-crescent, W.
Thompson, Francis Henry, Tenbury, Worcestershire.

As an Assistant in Compounding and Dispensing Medicines:

Hockenhull, Philip Hall, Macclesfield.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BAINBRAWE, FREDERIC, M.A. M.D. Cantab., M.R.C.P.L. —Assistant-Physician to the East Sussex, Hastings, and St. Leonard's Infirmary.

BAYLIFFE, ALWORTH M., M.R.C.S.E. and L.S.A.—Medical Officer for the Eleventh District of the Axbridge Union.

OAKSBY, L. H., L.K.Q.C.P.I., L.R.C.S.I., Demonstrator of Anatomy in the School of Surgery, Royal College of Surgeons of Ireland —Surgeon to the Meath Hospital and County Dublin Infirmary, *vice* Robert St. John Mayne, L.K.Q.C.P.I., etc., deceased.

O'SULLIVAN, STEPHEN, M.D. Queen's Univ. Irel., C.M., L.R.C.S. Edin., etc.—Medical Officer for the Blackrock Sub-district of the Cork Dispensary District.

SWEENIE, W. F., M.B., L.R.C.S.—Medical Officer for the Killea District of the Londonderry Union.

MILITARY APPOINTMENTS.

19TH FOOT.—Staff Assistant-Surgeon Henry Hummerston Burford, to be Assistant-Surgeon, *vice* John Leader, who exchanges.

80TH FOOT.—Staff Assistant-Surgeon John Murray, M.B., to be Assistant-Surgeon, *vice* Jonas Richard Leake, placed upon half-pay; Staff Assistant-Surgeon Brodie Cruickshank, M.B., to be Assistant-Surgeon.

MEDICAL DEPARTMENT.—Assistant-Surgeon James Landale, M.D., from the 6th Dragoon Guards, to be Staff Surgeon, *vice* Staff Surgeon-Major Thomas Frederick Wall, who retires upon half-pay; Assistant-Surgeon John Leader, from the 19th Foot, to be Staff Assistant-Surgeon, *vice* Henry Hummerston Burford, who exchanges; Assistant-Surgeon Christopher John Weir, M.B., from the 75th Foot, to be Staff Assistant-Surgeon, *vice* Arthur Wellesley Roche, appointed to the 48th Foot; Assistant-Surgeon Jeremiah James O'Grady, from the 104th Foot, to be Staff Assistant-Surgeon, *vice* William Armstrong, placed upon half-pay.

BREVET.—Staff Surgeon-Major Thomas Frederick Wall, who retires upon half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

BIRTHS.

BATEMAN.—On January 7, at 32, Compton-terrace, Highbury, N., the wife of Henry Bateman, F.R.C.S.E., of a daughter.

BLYTH.—On December 27, 1871, at Worcester, the wife of A. W. Blyth, M.R.C.S., L.S.A., A.K.C., of a son.

THOMSON.—On December 28, 1871, at Greenock, N.B., the wife of James Thomson, Surgeon Royal Navy, of a son.

WATSON.—On January 2, at Little Huthwaite, Wortley, near Sheffield, the wife of Alfred M. Watson, M.D., of a daughter.

WILLEY.—On January 6, at Winchester, the wife of Henry Willey, M.B., of Heathfield, Bromley, Kent, of a daughter.

MARRIAGES.

AMBROSE—MCMURDO.—On December 5, 1871, at St. James's Church, Delhi, J. D. Ambrose, M.D., Assistant-Surgeon 58th Regiment, to Katherine Emily, eldest daughter of Major-General W. M. S. McMurdo, C.B., commanding the Rawul-Pindee Division.

BARRIE—D'URBAN.—On January 10, at 30, Gilmore-place, Edinburgh, Andrew David Barrie, M.B., C.M., and L.R.C.S., of Dumfries, to Emily, relict of Thomas William Findlay D'Urban, of Natal, and youngest daughter of the late John Stiven, of Glasgow.

HULL—OGLE.—On December 4, 1871, at St. George's Cathedral, Cape of Good Hope, George Askew Hull, M.R.C.S. and L.M., eldest son of Dr. George Hull, 102, Warwick-gardens, Kensington, to Isabel, fourth daughter of John Connell Ogle, Esq., of Kensington.

HUNTLY—JONES.—On January 2, at Holy Trinity Church, Sydenham, the Rev. B. C. Huntley, M.A., to Jessie Augusta, eldest daughter of Edward Jones, M.D., Sydenham-park.

WRAITH—DUCKLE.—On January 2, at the Church of St. Mary, Reading, Lawrence Hargreaves Wraith, Esq., third son of the late S. H. Wraith, F.R.C.S., J.P., of Over Darwen, Lancashire, to Eliza Marian Burton, elder daughter of the late H. C. Duckle, M.D., of Pilham Hall, Lincolnshire.

DEATHS.

BEEMERES, WILLIAM, M.D., F.R.C.S., formerly of the Old Kent-road, at Dole, near Aberystwith, on December 29, 1871.

BROWN, SARAH, the beloved wife of Lundin Brown, M.D., at Malvern Wells, on December 21, 1871, aged 34.

DEBENHAM, ELIZABETH MOSS, wife of Robert Debenham, M.R.C.S., at Heath House, Stepney, on January 3, aged 40.

EDWARDES, JOHN, M.R.C.S.E., at his residence, Uppingham, Rutland, on January 8, aged 51.

FERNELEY, CHARLES, Surgeon of the Royal South Lincoln Militia, on December 20, 1871, at Grantham, aged 61.

MINGAYE, CHARLES PAGET, Surgeon, late of Twickenham and Dedham, at 215, Brompton-road, on January 6, aged 48.

MUNDAY, CHARLOTTE, widow of Dr. Charles Munday, formerly of King-street, Snow-hill, E.C., at 7, Fortress-terrace West, Junction-road, N., on January 5, in the 59th year of her age.

ROBINSON, HENRY CHARLES, M.R.C.S.E., L.S.A., many years senior Medical Officer of Mile-end Old Town, and formerly of St. Pancras, at his residence, 156, Stepney-green, on January 8, aged 64.

WARE, ELIZABETH JESSIE, daughter of the late Dr. Hibbert Ware, at Torquay, on the 8th inst.

WELD, ELIZA ANN, wife of William Walter Weld, Staff Surgeon H. P., at Eastgate, Rochester, on January 3, aged 45.

WOLSELEY, CHARLES BERTIE, third son of the late William Augustus Wolseley, M.D. Edin., of Rothesay, Isle of Bute, supposed to have been lost in the ship *Arcot*, on her last voyage from Calcutta, in the 19th year of his age.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BATH ROYAL UNITED HOSPITAL.—Medical Officer. Must be M.R.C.S., and either L.R.C.P.L. or L.S.A. Applications and testimonials to the Secretary, on or before January 22. Election February 6.

CALNE UNION.—Medical Officer for the entire Union. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. H. S. Heath, Clerk, on or before January 30.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon. Must be M.R.C.S.E. Applications and testimonials to the Chairman of the Weekly Board, 167, Piccadilly, on or before January 22.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Double qualifications required. Further particulars to be obtained of Mr. T. Jones, Secretary, on or before January 22.

CHRISTCHURCH UNION.—Medical Officer. Candidates must be qualified in accordance with the General Orders of the Local Government Board. Applications and testimonials to the Clerk to the Guardians, on or before January 22. Election the same day.

CROYDON UNION.—Medical Officer for No. 3 District. Candidates must be duly qualified to practise. Applications and testimonials to Mr. A. G. Blake, Clerk, on or before January 15. Election on the 16th.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, 16, BRIDGE-STREET, MANCHESTER.—Resident Medical Officer. Candidates must be duly qualified and registered. Applications and testimonials to the Secretary, on or before January 23.

JERSEY GENERAL DISPENSARY.—Medical Officer. Further particulars of the Rev. F. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1.

MIDDLESEX HOSPITAL.—Resident Obstetric Assistant. Must possess one legal qualification. Applications and testimonials to the Secretary, at the Hospital, on or before January 30.

QUEEN'S COLLEGE, CORK.—Professorship of Chemistry. Applications and testimonials to the Under-Secretary, Dublin Castle, on or before January 22.

ROYAL CORNWALL INFIRMARY.—House-Surgeon, Secretary, and Dispenser. Must be a Member of the College of Surgeons of London, Dublin, Edinburgh, or Glasgow; or a Licentiate of the Society of Apothecaries. Applications and testimonials to the Treasurer, Mr. R. Tweedy, Truro, on or before January 20.

ST. GEORGE, HANOVER-SQUARE, DISPENSARY, 59, MOUNT-STREET, GROSVENOR-SQUARE. — Physician-Accoucheur. Must be M.R.C.P.L. Applications and testimonials to the Honorary Secretary, on or before January 30.

ST. PANCRAS, MIDDLESEX, N.W.—Medical Officer for No. 7 District. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Forms on which applications are to be made may be had of Mr. D. Fildew, Clerk to the Guardians, on or before January 15. Election on the 18th.

SUNDERLAND INFIRMARY.—Junior House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Senior House-Surgeon, on or before January 20.

TONBRIDGE UNION.—Medical Officer for the Fourth District Candidates are required to possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. F. Stone, Clerk, on or before January 18. Election the following day.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

New Winchester Union.—Mr. Frederick Eldridge has resigned the Third District; area 18,500; population 2359; salary £92 per annum.

St. Asaph Union.—The Rhuddlan District is vacant; area 7478; population 4151; salary £78 per annum.

St. Pancras Parish.—Mr. J. Wickham Barnes has resigned the Seventh District; salary £100 per annum.

APPOINTMENTS.

Biggleswade Union.—Thomas H. Barnes, M.D. St. And., M.R.C.S.E., L.S.A., to the Sandy District.

Oldham Union.—Samuel Jackson, L.R.C.P. Edin., M.R.C.S.E., L.S.A. Lond., to the Workhouse.

Wolverhampton Union.—Francis J. Griffiths, L.F.P.& S. Glasg., L.S.A. Lond., to the Bilston District.

Woodbridge Union.—Henry R. Ruckley, L.R.C.S. Ire., L.R.C.P. Edin., to the Fifth District.

THE next examination of candidates for commissions in the Medical Department of the Army will be held in London, on February 12. It is stated that there will be about twelve vacancies.

ROYAL COLLEGE OF SURGEONS.—At a meeting of the Council on the 11th inst., Mr. John Buck Stedman, of Godalming, Surrey, having been elected a Fellow at a previous meeting of the Council, was admitted as such, his diploma of Membership bearing date March 5, 1841. At the same meeting a vacancy at the Dental Board was declared, caused by the retirement of Mr. Edward Cock.

ARTS EXAMINATION.—The 300 gentlemen who underwent their preliminary examinations for the diplomas of Fellowship and Membership of the Royal College of Surgeons a few weeks since, will be glad to know that the result will be sent to them in the ensuing week.

PROFESSOR FLOWER, F.R.S.—This gentleman has consented to deliver a lecture on the "Structure and Habits of Fishes," at the *soirée* which will take place this (Friday) evening in the Aquarium of the Crystal Palace.

A MEDICAL OFFICER OF HEALTH is about to be appointed at Oxford during the progress of the drainage works.

THE mortality of Paris is still decreasing; the numbers last week were 768, against 832 the week before.

BY the resignation of Dr. Bond the Regius Professorship of Physic in the University of Cambridge has become vacant. Dr. Bond has held the office since 1851. The names of Professor Humphrey and Dr. Latham have been mentioned as likely to succeed Dr. Bond.

A MOVEMENT has been started to establish a Hospital in London "for the treatment of diseases apart from the ordinary administration of alcoholic liquors."

MONDAY, February 12, and following days, have been appointed for a competitive examination of candidates for the Naval Medical Service, at the University of London, Burlington Gardens.

A SWISS society has offered two prizes of 400 fr. and 200 fr. each, for an essay on the best means for moderating the excessive consumption of ardent spirits in Switzerland.

Dr. BALLARD has been sent down by the Local Government Board to Wolverhampton, to make an official inquiry into the cause of the excessive death-rate which has prevailed for some time in that town.

CHOLERA has reappeared in Western Mekron, and intermittent fever is prevalent in the town of Gwadur. Several villages in the immediate neighbourhood of Calcutta are suffering from a severe visitation of fever. A few cases of cholera are reported to have occurred at Decca.

THE Metropolitan Board of Works, with a view of ascertaining whether there is any connexion between typhoid fever and sewage emanations, have requested all the metropolitan vestries to send in returns of the number of men and boys employed in flushing and other sewer work, and the number (if any) that may have been attacked with typhoid fever.

HEALTH OF SHIPS' CREWS.—The Board of Trade has decided to substitute chloralum for the solution of zinc at present included in the scale of medicines and medical stores issued and caused to be published by the Board.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—On Friday, January 5, 1872 (J. M. Burton, Esq., F.R.C.S., President, in the chair), Dr. Geo. Johnson read a paper "On the Pathology and Treatment of Cholera," in which he ably enunciated his now well-known views of that disease, and defended himself from attacks that have recently been made upon him. Drs. Clapton, Carr, Dixon, Venables, Gooding, and Moon, and Mr. Mitchell, took part in the discussion which followed.

CHAIR OF PHYSIOLOGY AT THE PARIS FACULTY OF MEDICINE.—For this there are two candidates—M. Béclard, well known for his treatise on Physiology; and M. Vulpian, the present Professor of Pathological Anatomy. The latter candidate, being considerably the younger, and remarkably well versed in all the investigations of the more modern schools, would probably stand the better chance, had not the Faculty some time since pronounced against the "permutation of chairs" by a large majority.

UNIVERSITY COLLEGE, LONDON.—At a Session of Council on the 6th inst., Mr. J. Booth, C.B., in the chair, after the reading of the School Committee's report, in which the Committee represented the urgent necessity of an extension of the school buildings, in order to accommodate the rapidly increasing number of pupils, Mr. Samuel Sharpe, a member of the Council and of the Committee, announced his intention to present the College with the sum of £4000 as a contribution to the cost of the required buildings. The cordial thanks of the Council were at once voted to Mr. Sharpe for this most generous gift, the gratitude evoked by which was enhanced by the recollection of former liberal donations to the College from the same gentleman, who had previously given two sums of £1000 each to the School-Building Fund, £1000 to the Retired Professors Fund, £600 to the Fine-Art Building Fund, and several other lesser sums for various college purposes. The College has recently received from another liberal friend, Mr. J. Pemberton Heywood, a donation of £1000 to the School-Building Fund, to which he had contributed a like sum a few years ago, besides £500 to the Fine-Art Building Fund. At the same Session a communication was read from the late Mr. Felix Slade's executors, in which they stated that, having been informed that further assistance was needed to defray the cost of the fine-art buildings at the College, and to provide casts and other appliances for the use of the students, they had determined to place in the hands of the Council the sum of £1600, to be applied for the purposes above mentioned. It may perhaps be remembered that about two years ago the executors gave to the College £5000 towards the Building Fund, in addition to the large endowments for the Slade Professorship and Scholarships founded at the College, in pursuance of the directions contained in Mr. Slade's will. The best thanks of the Council were voted to Mr. Slade's executors for this further proof of the desire which they have on every occasion evinced to promote the interests of the Fine-Art Department of the College. A resolution was adopted at the same Session to admit ladies attending the class of political economy, to compete for the prizes and the Hume and Ricardo Scholarships, awarded for proficiency in that science.

TESTIMONIAL TO J. W. KAY, M.R.C.S.E., ETC.—On the 4th inst. a public dinner was given at the "White Hart," in Abchurch-lane, for the purpose of presenting a testimonial to Mr. J. W. Kay, which consisted of a malachite clock, together with a silver tea- and coffee service, claret-jug, etc., and bore the following inscription:—"Presented to J. W. Kay, Esq., M.R.C.S.E., by members of the Medical Profession, and others, his neighbours and friends, in testimony of their esteem and very warm regard."

AN ORDER OF MERIT AND HEREDITARY HONOURS.—Much discussion has taken place on the question, What is the most fitting distinction to bestow upon eminent Medical men? It may be interesting to trace the origin of hereditary dignities. That of Baronet is the most modern of all such dignities. Its creation in England dates from the year 1611; but, in 1619, James I., being desirous of replenishing the Royal coffers, and at the same time of colonising the province of Ulster, in Ireland, extended this new order of hereditary knighthood to that part of the kingdom, and offered it, together with a grant of land in the above-named province, to anyone who paid £1000 into the Royal exchequer. The oldest baronets are, therefore, for the most part, representatives of a purchased honour. The blood-red hand, emblazoned on the escutcheon, and borne as an honourable augmentation on the coat-armour of all recipients of this order, constitutes, in fact, the arms of Ulster. There are no ancient historical associations connected with this innovation upon the Equestrian Order. The baronets of Scotland (A.D. 1625) owe their origin to a like scheme for colonising Nova Scotia. The order has never altogether lost its plebeian, or, rather, venal origin; and as the number of its members is now unlimited, mere wealthy *parvenus* have so frequently gained admission into its ranks, that it has become the constant theme of ridicule, together with its twin-brother, the City Knight. Thus, in the words of a once-popular song—

> "Next came a baronet whose blood-red hand
> Was emblazoned in chivalry;
> But as he'd been known behind a counter to stand,
> Why, he would not do for me."

As no political or personal privileges attach to the position, unlike the peerage, there is no court that can decide a disputed claim to this title. Hence, there are at the present day many contemporaneous claimants, all asserting their right, and assuming the title which this dignity confers, to the great confusion of genealogists and heralds. The title may be, therefore, almost as readily assumed as that of Esquire, which, strictly speaking, no amount of property or of courtesy can bestow. Knighthood, at all events, is at least personal, and there can be no mistake about the individual so honoured; but after two or three generations it is sometimes hopeless to attempt to decide upon the succession to a baronetcy. So much for the hereditary principle. Again, the judges of the land are, for the most part, satisfied with a simple knighthood, and certainly reflect as much honour upon it as it confers upon them, although occasionally they are raised to the peerage,

rather to assist in its appellate jurisdiction, and to preserve the character of that time-honoured attribute of the institution, than as a matter of personal favour to themselves, or even as the reward of merit. No title, in fact, enjoys a greater *prestige*, or is more associated with historical reminiscences and chivalrous devotion than that of knighthood. For a man to "win his spurs" by merit is proverbial. The Equestrian Order has always commanded respect and claimed consideration. At one time it constituted even an international, if not a cosmopolitan fraternity, and the "*chevalier sans peur et sans reproche*" expresses the very quintessence of knightly honour. The craving for hereditary honours is certainly a marked feature of the present age. Such a yearning was unknown to the ancient barons of the realm, whose honours were solely personal, and for some centuries conferred no hereditary rank or privileges. Indeed, hereditary nobility was unknown in Europe till the year 987, when Charlemagne introduced it into France; but it was not recognised in England till some four centuries later, as is attested by many cases of writs of summons to Parliament never having been renewed to the descendants of the barons so summoned. The term "baron" was not originally, as now, synonymous with "noble," but rather with "freeman." The knight's fee in land was, in fact, the reward for distinguished services, and the fortunate possessor of several such fees was usually summoned, as one of the greater barons, to the general council of the nation; but the honour was merely personal, although, as lands could not be alienated without the king's permission, nor yet disposed of by will at all, the succession to knighthood frequently continued in the same families, the renewal of the honour being voluntary on the part of the king, but, at the same time, accompanied by a pecuniary acknowledgment on that of the recipient. At the present day an Equestrian Order of Merit of a purely personal character seems needful to reward distinguished men.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. J. E. Gross, Gibraltar.—The letter has been received, also an enclosure.

Dr. F. D. Edgerton, Middletown, U.S.A.—Your letter, with enclosure, has come safely to hand.

Q.—We do not know the preparation, nor do two leading chemists whom we have asked.

E. W.—The case is recorded in vol. xxix. of the *Transactions of the Royal Medical and Chirurgical Society*.

R.'s request has been attended to. We should be glad to receive further descriptions and statement of results.

Ishmael.—M'Call's, Houndsditch. For tongues write to Mr. Renshaw, Medical bookseller, 356, Strand, London, W.C. The latter are excellent and cheap.

An Experimenter.—The A B C process of the "utilisation of sewage" has been reprinted in the form of a pamphlet from the *Standard* newspaper, and may be obtained at E. Newman's, Devonshire-street, Bishopsgate.

Lambeth.—"A Guardian" informs us that notice of the following motion has been given, to be brought forward at the next meeting of the Lambeth Vestry:—"That, having regard to the resignation of their late Medical Officer, Dr. Puckle, they desire to record their high appreciation of his valuable services during the time he has held the office, and to express their hope that his health, impaired in the exercise of his Professional duties, may soon be restored."

Impudence and Cant.—A "London Physician" has called our attention to a pamphlet published by a quack doctor near Bedford-row, containing an account of some universal medicines which are to cure all diseases. That which distinguishes the work of this "Professor" is the abundance of greasy allusions to the Bible, from which the Professor professes that his system of cure is derived; and besides this, the impudence with which he forges quotations from Hippocrates, and testimonials from respectable Physicians. He asserts that the Queen's Physicians always prescribe his medicines in dangerous cases; he forges a testimonial from the late Mr. Beale, Medical Officer of Health to St. Martin's-in-the-Fields, and takes the same liberty with the names of many other eminent Practitioners lately deceased. Thus, amongst the alleged patrons of his quack pill and ointment, he gives the names of Count Wollowicz, Dr. Thomas Mayo, Dr. Symonds, of Clifton, Dr. James Jones—for he has the cunning to choose those who are lately dead, and whom he thinks he can misrepresent without being molested. We cannot help thinking what a profound and widespread ignorance of the Bible must prevail, when anyone can appeal to it successfully in favour of quack pills; and we wish that some Medical Corporation would have the spirit to indict the quack for libel in making this impudent use of the names of deceased members.

Materfamilias suggests that policemen should be armed with lactometers, and with authority to use them in testing the quality of the milk carried through the streets for delivery, and they will soon put a stop to the malpractices of dairymen. One man thus employed in each district would quickly work a reformation.

Worcester.—The Guardians were clearly wrong. The facts of the case may be stated briefly. It appears that on October 12 last Dr. Woodward certified that one William Jones, residing in the parish of St. Clement, was insane, and the usual certificate was handed over to the assistant-overseer, W. Walker. He duly visited the patient, and left with the intention of returning to him accompanied by a magistrate. Instead of doing so, however, he took with him Mr. Minchin, a Guardian, to the house of the lunatic. The circumstances were communicated to the Guardians on their next board day, and they gave a verbal order to Marshall "to suspend the usual proceedings for the removal of the lunatic to Powick." In the course of a few days the lunatic died, before his removal to any lunatic asylum. Now, who is responsible for this grave interference with the law? It may be answered, The assistant-overseer, Walker; and so, technically, he undoubtedly is; but surely the Guardians are solely *de facto* to blame. What right had they to interfere with the wholesome and necessary provisions of an Act of Parliament? Whatever the Guardians may think—and it would appear, from the report of the proceedings at their last meeting, they imagine they are to determine whether a certified lunatic is or is not to be removed to an asylum—we take the liberty of informing them that they are not the judges in the case, and that they are forced to obey the law. We understand, from the *Worcestershire Chronicle*, that the case is not the first of the kind that has happened at Worcester. We trust that the Local Board will take such steps as will, at all events, make it the last. Common humanity, as well as the interests of the public, demands that such outrages against decency and common sense should cease.

The Medical Declaration respecting Alcohol is treated with much ability and acumen in the last number of the *Camden and Kentish Town Gazette*. We extract the following as the views of a "Layman" on the subject:—

"It is patent, therefore, that, both in health and disease, the "Faculty" in this Declaration strictly adheres to the doctrine of temperance *versus* abstention, and merely urges the weight of its authority and opinion against *excess*. So far, it is a very conscientious document, and the hardest "pill" that teetotalers ever had to swallow. When the declarants, however, travel beyond the region of their Professional opinions and experiences, they are evidently beyond their depth. While they are to be commended for throwing their whole weight into the scale in favour of moderation, they have no right to stigmatise their own Profession as criminally addicted to the promotion of intemperance. . . . . .

"As a Medical document, pure and simple, the Declaration is a very creditable and valuable performance; but as a political instrument and an indication of a demonstrable fact, it is as unreliable as the most romantic statement of a Robertson Gladstone or a Recorder Pope. The subject has been already, to use a vulgarism, 'run to rinsings.' In a physiological point of view the scientific treatment of alcohol is really subservient to the knowledge of the secret higher influences that operate upon the material of our existence, and of these learned men know little. . . . The Medical declarants were perfectly right in 'speaking by the card,' and advocating the medium. They shook their heads and looked wise, Professionally, over their patients' pulse, and characteristically and safely struck the 'happy medium.' So let us all do likewise, and advocate moderation and wisdom in all things, and thank our Heavenly Father, who does not allow a 'sparrow to fall to the ground' without his beneficent care, even for the blessing bestowed upon us in the shape of alcohol, remembering that its *abuse* in some cases does not lessen by one grain the value of its *use* by the majority."

C. H. W. P. has forwarded to us the following cases for publication. Certainly, if an inquest was required in these instances, Medical evidence was essential to determine the real cause of death. No wonder the coroner's court "is becoming a by-word" when such cases occur:—

Case 1.—I was summoned at eight o'clock one morning to go five miles into the country, to see a woman—a primipara—who had been confined of twins by a midwife between 1 and 2 a.m. The old woman waited from that time until 7 a.m. for the expulsion of the placenta, and then despatched the husband to fetch a Doctor. About 9 a.m. I found the woman had been dead half an hour. The corpse was very much blanched, and the abdomen distended. The woman present stated there had been haemorrhage going on more or less all the time, and that about an hour after the messenger started slight convulsions came on, speedily followed by death. I ordered the corpse to be left as it was, and on my return gave information to the authorities. In this case no inquest was held, and, as I refused a certificate, the death was returned "Uncertified," and the body buried by the clergyman.

Case 2.—J., a young man, about 30, a farm labourer, in robust health, came home from his work complaining of "toothache." He obtained some stuff from a chemist to apply to the tooth. About 3 a.m. a person sleeping in the next room heard a noise, came into the room, and found him struggling somewhat and gasping for breath. Sent in for me immediately—(two miles). On my arrival I found the man had died within half an hour, without speaking or much struggling. There was nothing particular about the appearance of the body. In this case an inquest was held; no Medical evidence was called, and no history of previous disease elicited. Verdict—"Died by the visitation of God."

Case 3.—Mr. W., aged about 40, had been suffering for some time from extensive organic disease of the heart, liver, and kidneys. About a week before he died I was sent for to see him, as he had been very delirious. I found the delirium had passed off. The secretion of urine, which had been gradually getting scanty, had then almost ceased. There was great anasarca of the lower extremities, slight jaundice, ascites, a distressing cough from congestion of the lungs, and the characteristic aortic pulse. He was so weak that he could not bear to be moved to have his bed made. (I mention his condition at that time to show that it was impossible for him to

have gone from his house to the place where he was found dead, unless under the influence of delirium produced by uræmic poisoning.) From this time a man slept in the house, to assist his wife in the event of the delirium returning. He seemed a little better, and there was no return of the delirium until the night preceding that on which he died. On that next night, his wife, worn out with watching, fell asleep, and the poor man must then have got out of bed in his night-shirt, gone downstairs, opened the door, passed through the garden, and walked a good hundred yards, and then have thrown himself into a small pond (not more than six inches deep, mud and all), where he was found dead, lying on his face. An inquest was held; no Medical evidence was called—although the necessity for it was pointed out to the coroner—and an open verdict of "Found drowned" was recorded.

COMMUNICATIONS have been received from—

Dr. W. P. Harrison; Mr. Blyth; Dr. Carnegie; Mr. J. H. Scott; Mr. Palmer; Dr. Fayrer; Dr. Wadham; Mr. Purvis; Mr. C. S. Egarr; Dr. G. Johnson; Mr. W. Carter; Dr. Suckling; Dr. Aldis; Mr. Bulley; Mr. Oxley; Mr. Burrows; Mr. J. W. Duffy; Mr. G. Gaskoin; R.; Rev. J. M. Vaughan; Mr. Mitchinson; Dr. Cayley; Mr. G. Grove; Dr. Handfield Jones; Mr. H. Arnott; Mr. Haynes Walton; Dr. J. W. Ogle; Dr. George Johnson; Mr. J. Chatto; Dr. Whitmore.

BOOKS RECEIVED—

An Earnest Appeal for a New System of Astronomy—Deschanel's Natural Philosophy, Part 3 Electricity—Spiritualism Answered by Science—Parisiana, new edition—Report of the Sanitary Commissioners with the Government of India, 1870—Nelson Hardy on Hospital Out-Patient Reform — Transactions of the Odontological Society — Concerning Spiritualism, by Gerald Massey—Approved Plans and Specifications for Post Hospitals, War Department, U.S.A.—Report of Surgical Cases in the U.S. Army.

PERIODICALS AND NEWSPAPERS RECEIVED—

Dark Blue, January—The Doctor—Medical Press and Circular—Quarterly Journal of Microscopical Science—British and Foreign Medico-Chirurgical Review—Journal of the Gynæcological Society of Boston—Braithwaite's Retrospect, vol. lxiv.—Practitioner, January—Pharmaceutical Journal—Huddersfield Daily Examiner—Huddersfield Chronicle—Scarborough Express—Camden and Kentish Towns Gazette—Birmingham Medical Review—Westminster Review.

APPOINTMENTS FOR THE WEEK.

January 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Dr. Chapman, "On the Pathology and Treatment of Neuralgia and its kindred Disorders."

16. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Mr. Arnott's Case of "Tumour of the Testicle" (Report). Dr. Southey's Case of "Disease of Supra-renal Capsules" (Report). Mr. A. Norton, "Malignant Growths of Femur." Mr. Lawson, "Sequel of a Case of Blood-Cyst." Dr. Leared, "Renal Calculi of Cystic Oxide." Dr. Thorowgood, "Salivary Calculus." Dr. Greenhow, "Excavation of Lung, with Arrest of the Disease; Complete Destruction of one Lung by Non-tubercular Excavation." Dr. King, "Embolism of the Middle Cerebral Artery associated with Aneurism of the Aorta." Mr. C. Heath, "Fibro-cystic Tumour of Lower Jaw."

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Nervous and Circulatory Systems."

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Arts, 8 p.m. Meeting.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Mr. Fairlie Clarke, "Syphilis as it affects the Tongue."

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

19. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 9 p.m. Prof. Odling, F.R.S., "On the New Metal, Indium."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 6, 1872.

BIRTHS.

Births of Boys, 1249; Girls, 1203; Total, 2452.
Average of 10 corresponding weeks, 1862-71, 2207·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	829	790	1619
Average of the ten years 1862-71	793·7	804·8	1598·5
Average corrected to increased population	...	...	1758
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	7	2	...	5	...	3	...	2
North ...	751638	30	20	4	1	20	1	8	1	2
Central ...	333887	7	8	1	...	8	...	2	2	1
East	638928	18	16	6	1	32	1	4	3	1
South	966132	34	16	11	1	27	...	9	6	1
Total	3251804	91	67	24	3	92	2	26	12	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·539 in.
Mean temperature	41·5°
Highest point of thermometer	51·4°
Lowest point of thermometer	33·0°
Mean dew-point temperature	37·0°
General direction of wind	S.W.
Whole amount of rain in the week	1·19 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 6, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Jan. 6.	Deaths Registered during the week ending Jan. 6.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2452	1619	51·4	33·0	41·5	5·28	1·19	3·02
Portsmouth ...	115455	12·1	90	48	52·4	33·6	43·0	6·11	1·46	3·71
Norwich	81105	10·9	46	72	48·0	30·5	38·4	3·55	0·52	1·32
Bristol	186428	39·8	153	93	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	45	78	50·0	32·0	39·8	4·33	1·02	2·59
Birmingham ...	350164	44·7	281	169	51·3	34·3	41·4	5·22	1·14	2·90
Leicester	99143	31·0	83	62	50·5	31·0	39·4	4·11	0·62	1·57
Nottingham ...	88225	44·2	52	59	51·2	29·1	39·3	4·06	0·56	1·42
Liverpool	499897	97·9	379	300	48·8	32·8	40·9	4·94	0·84	2·13
Manchester ...	†352759	78·6	214	207	48·0	32·0	39·8	4·33	1·20	3·05
Salford	127923	24·7	119	60	47·7	32·2	40·4	4·66	0·96	2·44
Oldham	84004	20·2	63	55	...	...	...	...	...	...
Bradford	151720	23·0	75	69	50·8	36·3	42·8	6·06	1·19	3·02
Leeds	266564	12·2	107	126	53·0	36·0	41·7	5·39	0·90	2·29
Sheffield	247847	10·9	155	157	50·0	35·0	40·4	4·66	0·94	2·39
Hull	124976	35·1	110	58	44·0	32·0	38·0	3·33	0·70	1·78
Sunderland ...	100665	30·4	46	69	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	74	66	45·0	35·0	39·0	3·89	0·71	1·80
Edinburgh	205146	46·3	132	123	52·0	24·0	38·2	3·44	1·20	3·05
Glasgow	489136	94·8	428	304	47·7	34·0	39·9	4·39	1·11	2·82
Dublin	310565	31·9	155	206	51·2	30·5	41·0	5·00	0·98	2·49
Total of 21 Towns in United Kingd'm	7394345	34·0	5262	4036	53·0	24·0	40·3	4·61	0·96	2·44

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·54 in. The highest was 30·06 in. on Sunday evening, and the lowest 28·75 in. on Friday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which has been discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,488, and not 356,099, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the corrected number for 1871.

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This "Representative Book of the Medical Science and Practice of the day" ("Lancet") has been out of print more than a year, in consequence of the great care exercised by the Author in the preparation of the New Edition.

The Additions and Improvements (among which may be mentioned the adoption of the order of Classification, as well as the new Nomenclature, of the College of Physicians) are too numerous and extensive to be specified in detail; but it may be sufficient to state that they are in reality equivalent to a Third Volume, a special fount of type having been cast to enable the printer to preserve clearness without adding to the bulk of the work.

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CHLORODYNE.

SPECIAL NOTICE.

The absurd statements that have recently appeared in Medical and other Journals respecting the constituents o Chlorodyne (each analysis differing widely), J. T. Davenport is compelled to further CAUTION the Profession against using any Compound under the name of Chlorodyne but the genuine, which alone has gained such extraordinary celebrity.

J. T. Davenport appends Medical testimony in confirmation of the above.

The wonderful efficacy of Chlorodyne being universally acknowledged, it must be evident to all that the assumption of the name to any other Compound than the Genuine is not only improper, but unprincipled, as it is liable to injure the health of the Patient and cause discredit to the Physician. Even death has resulted from the use of spurious Chlorodyne when benefit had been previously experienced from the genuine; and this melancholy circumstance has no effect in restraining these heartless proceedings.

From Dr. J. WILSON, Castleton, Yorkshire.

"I require to use a considerable quantity of Chlorodyne in cases where no other medicine is of the least avail; and my object in wishing a supply from your own establishment is that I am frequently deceived by getting a *Spurious* article from other places, although I never order anything but the genuine Browne's Chlorodyne."

From JAS. ATKIN, M.D., Medical Officer, Fever Hospital, Oldcastle, Co. Meath.

"Having ordered from our Druggists "Chlorodyne," I was not only *disappointed in its effects*, but annoyed when I received a spurious compound. I have been in the habit of using your Chlorodyne with great advantage to my patients and satisfaction to myself."

From F. E. BARTON, Esq., Surgeon, Dover.

"I have now used your Chlorodyne in numerous cases, and have much pleasure in adding my testimony to its very great efficacy as an Antispasmodic and Anodyne, having found it especially valuable in those cases in which Opium does not agree well with the patient."

From Thomas F. Hale, Esq., Surgeon, Saundersfoot, Pembrokeshire.

"Sir,—I should be much obliged by your forwarding three bottles of Dr. J. Collis Browne's Chlorodyne, which I have found most useful in allaying pain. I have used twelve ounces of it, and, in nearly every case in which I have employed it, have every reason to be satisfied with the result; and although I object, as a rule, to use any preparation of a secret nature, and whose composition I am not fully acquainted with, still, having once tried the Chlorodyne, and found that it really did produce the effects stated, I do not think I should be justified in withholding such a preparation from my patients, when I see the value of the remedy."

From Lord FRANCIS CONYNGHAM, Mount Charles, Donegal, December 11th, 1868.

"Lord Francis Conyngham, who, this time last year, bought some of Dr. J. Collis Browne's Chlorodyne from Mr. Davenport, and has found it a most wonderful medicine, will be glad to have half a dozen bottles sent at once to the above address."

"Earl Russell communicated to the College of Physicians that he received a despatch from Her Majesty's Consul at Manilla, to the effect that Cholera has been raging fearfully, and that the ONLY remedy of any service was CHLORODYNE."—See "The Lancet," 1st December, 1864.

CAUTION.—Vice-Chancellor Sir W. Page Wood stated that Dr. J. Collis Browne was undoubtedly the Inventor of CHLORODYNE, that the whole story of the Defendant was deliberately untrue, which, he regretted to say, had been sworn to.—See "Times," 13th July, 1864.

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Who alone received the Recipe, and who is the Only Authorised Maker.

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE,

BEING THE SUBSTANCE OF THE LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.(a)

(*Concluded from page* 2.)

ANOTHER example of signal success in the prevention of disease and death may be found in the statistical returns of the British army during the last ten years. The writings of Sir John Pringle and others had directed the public attention, a century ago, to the necessity of sanitary regulations for the preservation and efficiency of the lives of soldiers and sailors —men thrown together in large numbers under circumstances in various ways trying to the health; and the well-known fact that the history of our armies generally comprised also the history of various pestilences, which they carry in their train, could not be disputed. Those best acquainted with the details of past sieges and campaigns knew also that the ravages made by these foes within the camp were often tenfold—nay, more than a hundredfold—greater than those inflicted by the arms of the enemy.

But the destructiveness, not merely of war, but of military life during peace also, was never fully felt until made known by the searching statistical records first devised by Sir James MacGregor, afterwards digested into reports by Dr. Graham Balfour and Lieutenant (now Major-General Sir A.) Tulloch, and finally extended and completed by the Royal Commission of 1857, of which Lord Herbert was president. Who could have supposed that the annual mortality of the army in this country in time of peace was more than double that of the general male population of the same age?—and, still more, that the Footguards, consisting of picked men, selected for their healthiness and robustness, should annually die off at the rate of 20·4 per thousand, whilst the ordinary mortality does not exceed 9·8? Yet these were disgraceful facts, arising from official carelessness and ignorance through a series of years, until hundreds and thousands of valuable lives were sacrificed, an incalculable amount of public money wasted, and a stigma of obloquy was cast on a noble branch of the national service. In vain did many of the more intelligent and enlightened Medical officers endeavour to make their representations at head-quarters why such mortality occurred, and how it could be corrected. In such appeals to those in authority they generally only *got snubbed*, and were told to hold their tongues and mind their own business!

If such were the fatal results of the criminal indifference and ignorance of the governing classes during peace, can we wonder at the harvest of disaster, disease, and death which resulted in the trying times of war? The horrors of the Crimean campaign are still fresh in our memories. And who is there among us that has not heard of the prominent features of that eventful period which bear on our present subject?—of the unheeded warnings of the Director-General and other experienced Medical men?—of the hasty equipment of the expeditionary force, and its foretaste of suffering from the neglect of sanitary precautions on the voyage and in the camp before Varna?—of the inadequacy of the supplies for the sick and wounded at Alma?—of the perils and privations of Balaklava, aggravated as they were by desolating storms, intense cold, and still more by the blundering of officials, through which the troops were kept without food and clothing, and were consequently soon decimated by starvation and disease?—of the further ravages of zymotic pestilence in the Crimea and at Scutari, from almost total want of proper sanitary arrangements on board the transports, in the camps, and in the Hospitals?

The amount of mortality from disease alone was something appalling during the first seven months of the Crimean campaign, rising to the rate of 60 per cent. per annum of the whole army—a mortality greater than that of the great plague of London in its population! And observe, all this awful sacrifice of life was from preventible causes, as you may judge from the sequel, which will serve us as a present illustration of the successes of Medicine.

During the last five months of the Crimean campaign the mortality among the troops did not exceed 11·5 per thousand per annum, which is considerably below the average mortality of the army at home in time of peace. And that this remarkable improvement was really due to better management, and not to increased healthiness of the climate, is obvious, from the fact that at this very period in the contiguous French army fever and other zymotic diseases were still making fearful ravages.

The reform thus accomplished at last, was brought about through much tribulation. The British nation was aroused to sympathy and indignation at the sufferings and destruction of its army, denounced by one of the Ministers in the Government as "horrible and heartrending." The public, through the agency of the "*Times* Commissioner," vied with the now earnest and lavish War Minister in sending abundant supplies to the Hospitals and to the camp, where the more enlightened Medical officers, now freed from the trammels of red tape and official obstructiveness, and aided and strengthened by able special commissioners,(b) were carrying on their sanitary measures with the vigilant superintendence of that guardian angel of the British army, Miss Nightingale, with her band of devoted assistants. Thus was the residue of the army saved, and the reinforcements sent out were preserved in health and efficieney. So prosperously ended the Crimean campaign.

But where was the security that the lesson thus taught would be remembered any more than those to be learnt from former wars, which had to struggle through similar disasters —those of Walcheren and the Peninsula, for example? There was none; and if no further change had been made in the system, in all probability the results of experience and the dictates of science and common sense would have soon been set aside by the spirit of official obstinacy and military arrogance which would surely prevail in the War Department as hitherto administered.

But, thanks to Sidney Herbert's Royal Commission of 1857,(c) a change was made in the system—the administration of the army has been put on such a footing as to secure a constant attention to sanitary matters in future; and the short period which has since elapsed enables me to record such satisfactory results, both in peace and war, as to fully entitle them to a foremost place among the successes of Medicine.

Thus, during the last three years, since the reformed system has been in operation, the annual mortality of the Footguards at home has been reduced from 20 to 9 in 1000, and that of the infantry of the line from 17·9 to 8·5, and even so low as 5 in Aldershot and Shorncliffe.

And in proof of the success in war, I will quote a passage from one of Miss Nightingale's summaries:—"The crowning testimony of the great national importance of the new system of sanitary administration inaugurated by Lord Herbert is to be found in the last Chinese expedition, when his reforms were first practically tested. An expeditionary force was sent to the opposite side of the world, into a hostile country, notorious for its epidemic diseases. Every required arrangement for the preservation of health was made, with the result that the mortality of this force, including wounded, was little more than three per cent. per annum, whilst the 'constantly sick' in Hospital were about the same as at home. Let us contrast this great success with what happened during a former war in China. The 26th Cameronians, a 'total abstinence' regiment, and one of the finest and most healthy in the British service, was landed at Chusan 900 strong, and left to its fate without any sanitary care. In two months only twenty men could be got together."

I claim for Medical science the chief credit in supplying the foundation for these successes; and had the voices of the more enlightened and intelligent Medical officers of the army been listened to long ago, much good might have been done, and much evil averted sooner. But, as before said, these voices

(a) Various circumstances have delayed the appearance of these Lectures, of which no authentic report has yet been published. Their delivery was undertaken at the urgent and repeated request of the late Dr. Mayo, then President of the College. He went out of office in the following year, and the usual custom of appointing the same Lumleian Lecturer for two successive years was discontinued; therefore, the latter parts of these papers, although prepared for the lectures, were not delivered.

(b) Two commissions were sent out to the Crimean army at this date—one respecting supplies for troops and sick, presided over by Sir John MacNeill; the other under Dr. Sutherland, for carrying out sanitary improvements in the Hospitals and camps of Scutari and before Sebastopol.

(c) The members of this Royal Commission were—the Right Hon. Sidney Herbert, M.P.; Augustus Stafford, M.P.; Major-General Sir H. Storks; Dr. Andrew Smith, Director-General; Mr. Alexander; Sir J. Phillips; Sir Ranald Martin; and Dr. Sutherland. After the Royal Commission issued its report, several commissions were appointed to give practical effect to its recommendations.

were silenced by military despotism and official indifference; and it was not until, strengthened and re-echoed by new and awful experience, they reached the ears, touched the heart, and convinced the understanding of one high in rank and authority, that they became strong enough to bear down the opposition and obstruction that beset them on every side. Lord Herbert had already considerable experience in War-Office administration, when the disasters of the Crimea occurred and opened his eyes to its utter inefficiency. From that time forward, both in office and out of office, in public and in private, he devoted his whole life and best energies to the examination of the details of every department, to searching out all defects, and to finding and providing adequate remedies. At the head of that before-named Royal Commission of 1857, supported by competent Medical and other advisers conversant with the various subjects to be examined, he summoned the most eminent or best-informed witnesses, and in replies to upwards of ten thousand questions, with voluminous appendices, was amassed an enormous amount of information on all connected topics; the results of which were embodied in a most masterly report, concluding with a series of practical recommendations, which have since been in great measure adopted and carried out with a success exceeding the highest expectations. Prominent among these recommendations was that to place the Medical officers on a proper footing as guardians of the health of the army, to be consulted and deferred to for the prevention as well as for the cure of disease; and thus for the first time the Medical service became a power in the army, efficient and successful in some proportion to its dignity and deserts.

This great work Sidney Herbert conscientiously and nobly accomplished; but, alas! at the sacrifice of his health and life.

Note added in 1871.—Another great loss, which occurred about the same time, was that of Mr. Alexander, the Director-General, who, with great personal labour, first brought the new sanitary regulations into operation. Happily Lord Herbert's successors, in conjunction with Dr. Sutherland and other surviving members of the Barrack and Hospital Improvement Commission, have continued the arrangements under the authority of the present Army Sanitary Commission, which comprises representatives of the War Office, Royal Engineers, Office of Works, Local Government Act Office, and India Office, together with the Army Medical Department.

The most important field of operation of this Sanitary Commission at present is in India, where it was introduced under the direction of Lord Stanley, now Earl of Derby. Here it has already begun to achieve great successes in the prevention of disease, and bids fair to accomplish still greater triumphs hereafter. An annual report of the measures adopted is now published by the India Board; and the following extract from the last report will serve as a sample of what may be done.

In the year 1857 Sir Ranald Martin addressed two letters to the Chairman of the Court of Directors, recommending that all British soldiers available from the duties of the plains should be permanently cantoned in the hill regions of the country to diminish the high mortality then prevalent among them—amounting during fifty-six years of this century to 69 per 1000 per annum. In a letter dated March 27, 1870, alluding to the adoption of Sir R. Martin's recommendation, Dr. Cuningham states that Dr. Bryden had sent in a table showing the results for working parties in the hills during the past seven years.(d) The result is that the death-rate per annum is only just over 4 per 1000. "That the removal to the hill ranges, everywhere to be found throughout India, should reduce the death-rate from 69 to 4 per 1000 is, indeed, a most patent and wonderful fact. It is the greatest triumph ever achieved over the external causes of disease everywhere prevalent in the plains of Hindostan."—Report, etc., p. 5.

But there was one other chief agent in the commencement and completion of the great and successful work (of the Crimean campaign) whose name I cannot pass over, although, being neither Medical, military, nor even masculine, her share in the matter is little known or even suspected.

In all that relates to nursing and providing for the sick army in the East, the name of Florence Nightingale is as a household word; suggestive of devotion so noble, of self-sacrifice so chivalrous, that it might seem romantic if it had not been so substantial and practical in its beneficence. But the army and the country owe to Miss Nightingale much more than the devoting of years of day and night toil in watching, nursing, and superintending in the Hospitals and camps of Scutari and the Crimea. With a vigilance untiring, a rare intelligence, and a memory never failing, this gifted lady saw and comprehended all the multitudinous wants and requirements of the army, in Hospital, in camp, and in barrack; in war and in peace, in sickness and in health. She noted the complete failure of the existing system of administration, and how much was necessary to reform it in every department. At the end of the campaign in 1856, when Miss Nightingale returned home with weakened frame and broken health, her Queen and her country were ready to welcome her back to honour and to repose.

But no, Miss Nightingale had a further mission to fulfil; and instead of accepting titles or honours for herself, the boon which she asked was for the issue of that Royal Commission, with Sidney Herbert at its head, which has been the means of bringing about those reforms which she knew to be so much needed. Instead of seeking her own ease and rest after labours almost superhuman, she ceased not to work on for this end by taking a chief part in suggesting the course of the inquiries, and in obtaining the requisite evidence in ways and to an extent which her vast experience and knowledge enabled her alone to do.

Well, therefore, may we rank the name of Florence Nightingale with that of Sidney Herbert, foremost among the authors of the great sanitary regeneration of the British army, which has now made it, beyond comparison, the best-provided and the healthiest army in the world.

Note added in 1871.—Miss Nightingale's labours did not cease here: through all the intervening time, in spite of much bodily suffering and failing strength, numerous proofs of her superior intelligence and experience may be found in the workings and reports of various Government Commissions and public institutions connected with the army, Hospitals, and sanitary science. Even in the last Annual Report of the Progress of Sanitary Measures in India, Miss Nightingale's words of criticism, direction, and encouragement are deservedly brought forward as those of the highest authority and importance.

(d) It may, however, be questioned whether the greater salubrity of "working parties" may not be in some measure due to their exercise in the open air as well as to the altitude.

ORIGINAL COMMUNICATIONS.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. I.

The Origin and Construction of the Sphygmograph—Regulation of Pressure—Mode of Application—Adaptation to form a Cardiograph.

Ever since the art of healing has been practised, the pulse has been one of our two most prominent symptoms; probably the rudest of our forefathers in Medicine—the very aborigines, so to speak, of the world of physic—"looked at the tongue and felt the pulse" of their patients. From that time till the present day, this index of the centre of life has been the aid and adviser of the Physician or the Surgeon; no remedy is administered, no operation ever performed without consulting it. That silent tale-bearer tells us how life is ebbing or flowing in our patient; whether that wonderful organ, whose never-ceasing action is so necessary to life, tires or faints at its work; whether it requires assistance, and, when that assistance has been given, whether life or death will be the result. Even in these later years, when our means of ascertaining the condition of the hidden machinery of life have been so greatly multiplied, still our old ally, the pulse, ranks the first among our guides; no Surgeon can despise its counsel, no Physician shut his ears to its appeal. Since, then, the information which the pulse affords is of so great importance, and so often consulted, surely it must be to our advantage to appreciate fully all it tells us, and to draw from it every detail that it is capable of imparting. Our sense of touch, however highly educated, is manifestly liable to error, and it is to our more reliable sense, that of sight, we appeal, when possible, for confirmation. It is by the aid of this more accurate sense we should study the pulse, in its marvellous changes of character and form, as recorded by the sphygmograph.

This instrument, though it has now been used in England for several years, has not yet received that general attention which its great value demands from us, and which will, I trust, before long be paid to it. Taken up by many at its first intro-

duction, it was speedily cast aside, partly on account of its own imperfections, but chiefly from our want of knowledge of how or when it should be employed. Since then its use has been confined either to the physiological laboratory or to a few advanced Physicians, who foresaw the wide field of knowledge to be opened up to them by a more perfect acquaintance with the instrument and its more extended use. Still, by far the larger number of our Profession have continued almost in ignorance of its existence, and completely so as to its clinical value. The continued absence of any guide to its clinical use has tempted the writer to lay before the readers of the *Medical Times and Gazette* a few of those results which he has obtained from the practical study of the sphygmograph during the last few years; but, before we proceed to the investigation of its clinical use, it will be necessary first to obtain a knowledge of our instrument, and then of the physiology peculiarly attached to it. Those who wish for a more philosophical treatise on the subject than it is in my power to give, I would refer to Dr. Burdon-Sanderson's interesting book, entitled "Handbook of the Sphygmograph;" but we have to regret the absence in our literature of any adequate guide to its everyday clinical use. Drs. Balthazar Foster, Anstie, and Grimshaw have each contributed to our knowledge of sphygmography. Working, however, only on the outskirts of this field of inquiry, they have left the interior still unexplored.

It has been the aim of many physiologists and Physicians in times past to be able to register accurately and visibly the characters of the pulse. Galileo was perhaps the first to be struck with the idea. It occurred to him while watching the great swinging lamp in the central nave of the Cathedral of Pisa; and, after much trouble, we are told that he constructed an instrument, which he called the "pulsilogia." It created great interest among the Physicians of the day, though it was very imperfect, and soon fell out of use. Many succeeding attempts were made having the same object; but Vierordt was the first to contrive an instrument laying claim to the name of *sphygmograph* (*σφίγμος* pulse, *γραφω* I write); but this, though of ingenious construction, was full of fallacies and of no practical value. It is therefore unnecessary to describe it, and we may pass on to the more perfect instrument invented by Marey, bearing the same name.

This instrument as made by M. Brequet, of Paris, or some modification of it, is the one now in general use. The great objection to Marey's instrument, in its original form, was the very limited and imperfect manner in which the pressure of the spring applied to the artery could be controlled, and this was speedily discovered by all who used it to be a most important source of fallacy and imperfection in the results obtained. Dr. Sanderson and Dr. Foster have each invented more or less efficient methods of discovering the pressure employed, and of regulating it; both of these have been published in the Medical journals, and are described in their respective books upon the subject. I do not propose, therefore, to discuss their merits here, but we will proceed to the examination of the instrument that has been employed in making the observations which I propose to publish in these papers. Fig. 1 represents a sketch of the instrument, from which some idea of its general outline and framework may be

Fig. 1.

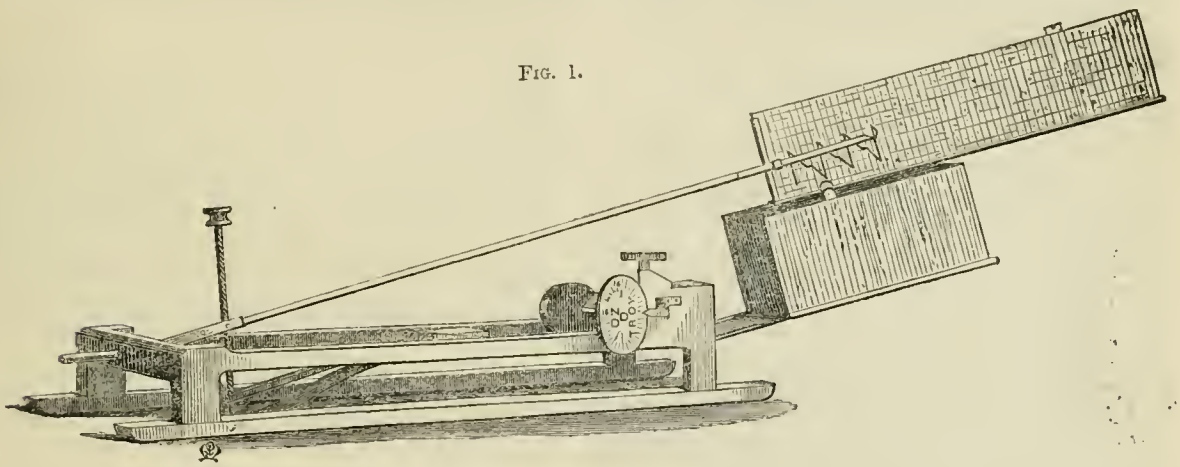

Fig. 1.—Perspective view of Mr. Mahomed's modified Sphygmograph.

obtained. It is to the arrangement of the levers by which the pulse-wave is transmitted and increased in size, as depicted in Fig. 2, that I would call attention. The mainspring, marked in the diagram A, is attached to the framework of the instrument by a hinge joint, H, which permits

Fig. 2.

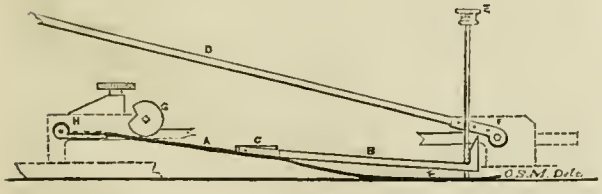

Fig. 2.—Diagrammatic section, showing arrangement of levers and eccentric.

free vertical, but no lateral movement. Its free extremity, which is covered by an ivory pad, rests upon the artery (usually the radial) from which it is proposed to obtain a tracing. To this spring is attached a block, C, which forms the centre of movement for a lever of the third order, marked B, which encloses it by the bifurcation of its extremity, a pin projecting from either side of the block, and passing through each extremity of the bifurcation, thus insuring a perfect vertical movement free from lateral oscillations. The free extremity of this lever is turned up at a right angle, and terminates in a sharp knife-like edge, which is kept in contact with the writing-lever, D, by the regulation of the screw, E. This screw passes through the lever, D, and rests upon the spring just above the ivory pad; every movement of the pad is therefore transmitted by means of the screw to the lever, D, and, by its sharp upturned extremity to the writing lever, D, the length of the screw below the lever, D, being increased or diminished according to the variation of the distance between the spring, A, and the writing-lever, D. Passing through the end of the writing-lever, D, is a hollow bar, receiving two fine pins which project from either side of the framework of the instrument; in this case, also, perfect vertical movement is obtained. The lever is made of a delicate slip of extremely light and flexible wood, and its free extremity is armed with a pen or fine steel point, by which its movements are recorded on the slide moved past it by means of clockwork, travelling at the rate of about four inches in ten seconds. In Marey's original sphygmograph the mainspring was rivetted to a sloping platform; a considerable amount of pressure was therefore unavoidable under all circumstances. This was increased by the use of a screw passing through the spring and pressing it closer to the platform; the variation was not great, and the pressure employed quite unknown.

The principal point, then, to attain is the ability to apply the sphygmograph with the smallest possible amount of pressure upon the artery, the tension of the spring being equally slight, to accommodate itself to the feeblest pulse, and then to gradually increase the pressure to the necessary extent,

increasing at the same time the tension of the spring in the same ratio. This I have been able to arrive at by unrivetting the spring from the platform, and suspending it by a pin passing through a hollow tube attached to the spring, and rivetted in each side of the framework, perfect vertical movement being again attained. A strong bar passes through the framework above the spring, about half an inch from its attachment. Around this bar, over the centre of the spring, is an eccentric, G. External to the framework the bar forms the axis of a strong cog-wheel, and still more external to this it bears a circular index-plate. Fitting into the teeth of the cog-wheel is an endless screw, turned by the thumb-screw shown in the drawing, which thus causes the eccentric to revolve above the spring. When the ivory pad of the spring is pressed up level with the framework of the instrument, the spring is brought in contact with the eccentric. The pressure required to do this—which is, in other words, the pressure applied to the artery—is regulated by the length of the radius of the eccentric in contact with the spring. This can be altered at will by turning the thumb-screw. The pressure applied to the artery is indicated by the figure engraved on the dial-plate, to which a fixed index points. This plate is marked in ounces of Troy weight. The pressure may be varied from one to eighteen ounces—a range which will be found wide enough to meet every requirement. The side-wings, by which Marey's instrument was laced to the arm, have been dispensed with, and ivory bars attached to the brass framework in their stead. The instrument in this form, with other minor improvements, was made for me by Mr. Clark, of 3, Windsor-cottages, High-street, Lower Norwood, who displayed in its construction the greatest ingenuity and the most perfect workmanship; I need not say that both these qualifications are necessary for the production of a reliable sphygmograph. Mr. Clark, I believe, is prepared to supply sphygmographs at the very reasonable price of five guineas.

The arm of the patient of whose pulse a tracing is required should be placed on a double inclined splint, bent to an angle of about 135°. I have used a plain wooden splint, with a hinge-joint, having on its under surface a brass bar fixed at one end by a hinge, and at the other by a pin into a block, which can be removed at pleasure, to allow of the splint being folded up, and thus making it more portable. Attached to the splint are two strong bands, which pass, one over a pin projecting from the end of the sphygmograph, the other over part of the framework connecting the box containing the clockwork to the other part of the instrument, and are held firmly on the other side of the splint by two pairs of sharp hooks, having their points directed downwards. By this means the ivory stand of the instrument is kept in perfect and firm apposition with the arm, and insures the spring being pressed up to its proper level. The hand is thus bent slightly backwards at the wrist, the fingers being passed below a strong elastic band stretched across the splint, and the patient directed to slightly flex the fingers round the band, but not to grasp it. If the wrist be flexed strongly backwards to the extent of a right angle—as directed by some sphygmographers—the parts are too tightly stretched, and the walls of the artery (included in this stretching) are made somewhat tense. Again, if the hand be firmly closed on anything given the patient to grasp, the tendons of the surrounding muscles are made tense, and are liable to interfere with the perfect application of the instrument, or in weakly subjects to vibrate. The ivory pad of the spring should be applied to the radial artery, as it lies on the inner side of the styloid process of the radius and is crossing the anterior ligament of the wrist-joint, for in this situation the artery can be most perfectly examined; and here it can be compressed against bone—a most important point when we desire either to obtain a perfect tracing or to measure the compressibility of the pulse.

The operator, feeling certain that the spring is perfectly applied to the artery, the sphygmograph may be strapped firmly upon the arm, as directed above; no fear need be felt of compressing the artery, which will lie, if the instrument be properly applied, between the ivory rods. The pressure of the spring must now be varied till we ascertain by which pressure we obtain the greatest movement of the lever, and a tracing may be taken, during which the slide should be stopped two or three times, and the pressure altered, so that we may discover at which pressure we obtain the greatest upstroke—that is to say, at which the spring follows most perfectly the expansion of the artery, and with which the apex is most sharply marked and free from rounding, and the various notches best defined. Experience alone can teach us when the tracing we obtain is perfect, and the pressure used the correct one. The use of incorrect pressure is perhaps the most common source of error in sphygmography, and the greatest care is necessary in deciding upon the amount of pressure to be employed. This, when ascertained, should be carefully recorded, as it is one of the most important characters of the pulse. Notice should also be taken of the amount of pressure required to totally extinguish the pulse, so that the lever remains perfectly motionless; for by this means an estimate can be formed of the force with which the heart is contracting. The tracings may be taken either on glazed white paper with ink; or smoked glass, the writing lever being armed with a fine steel point; or on smoked paper—each method has its supporters. I have tried all, but find the smoked paper by far the best. When ink is used, great difficulty is often experienced to induce the pen to mark, and it frequently occurs that the arm of the patient and the face of the operator are freely bespattered with ink. If glass be employed, its want of portability forms the chief objection, and also the space required to store the tracings when obtained, and inability to preserve them in books or on reports of cases. I have from these and various other reasons found it best to employ paper enamelled on both sides, which can be obtained of Messrs. Woolley and Co., 210, High Holborn. It reduces the amount of friction to a minimum, and can be easily smoked, without burning, over an untrimmed paraffin lamp; it is then stretched on the slide. After the tracing has been obtained, and the name, age of the patient, the pressure employed, date, and other particulars written upon it by a fine point (such as a needle mounted for microscopic use), it may be passed through a varnish made of gum benzoin and methylated spirit, about one ounce of the gum to six fluid ounces of spirit; it will rapidly dry, and be found both portable and permanent.

I may here mention that the sphygmograph may readily be adapted to form a cardiograph or polygraph. For this purpose I have used two small indiarubber bags, connected by tubing; one bag is placed over the apex of the heart, and retained in position by a piece of bandage with a buckle attached; the other, under the spring of the sphygmograph; the patient is then directed to hold his breath, so as to fix the chest-wall, in order that the bag may be affected by no movement except that of the heart, each pulsation of which presses the air out of the bag placed over it, and distends that to which the sphygmograph is applied; this movement is transmitted to the writing lever, and very satisfactory tracings of the heart's action, or of pulsating tumours, may be obtained.

With this brief description of the instrument and its application, we may pass on to the study of the normal pulse.

(To be continued.)

CASES OF INTESTINAL OBSTRUCTION.

By C. HANDFIELD JONES, M.B., F.R.S.

(Concluded from page 4.)

Case 4.—E. S., aged 64, admitted January 26, 1865. Has been ill more than a year, suffering from diarrhœa, the stools being often coloured with blood; was taken worse fourteen days ago with constipation and pain all over the front of abdomen and in the back. Bowels have not acted at all since January 13, and that was after an injection. Abdomen is globularly distended; resonant everywhere, except far back in the left flank; the highest percussion-note is given about the middle. No tumour to be felt. No marked tenderness of abdomen. Distended coils of intestine are evident through the parietes. Says she has much rolling, grumbling, "wobbling" sensation in the belly, attended with pain. Last summer her stools were small, like a worm. Has no vomiting; brings up sour water at times, but is not particularly sick. No appetite, but great thirst. Tongue red and dry, not much coated. Urine pretty free, high-coloured. Skin cool. Pulse weak and quiet. Expression of face tranquil. Pupils of medium size. Low diet; milk, beef-tea. Enema terebinth, stat. Extract belladonnæ, gr. $\frac{1}{3}$ + opii gr. $\frac{2}{3}$ in pil. ter die. The injection returned as it was thrown up; it did not penetrate above a little way. Rectum, on examination, found perfectly empty.

February 1.—Passed a fair amount of urine of natural appearance in twenty-four hours. Bowels still much distended.

On 30th passed a hard piece of fæcal matter about the size of a hazel-nut. Much flatus escaped. Tongue moist and natural. Much thirst. Pupils rather large. Extract. nucis vomicæ gr. ss. + aloes gr. jss. in pil. quater die.

4th.—Bowels acted well on night of 2nd; acted all night long; the belly became softer; but next morning she was partially collapsed. Pulse above 100; appetite lost; tongue dry. The abdomen still showed marks of distended coils of bowel. During 3rd she became weaker, and vomited in the afternoon; the pulse failed, and she sank at 3 a.m. of 4th. The pills were omitted, and she had brandy, etc.

Post-mortem.—On opening the abdomen the peritoneum was found everywhere much reddened. In the left flank the coats of the small intestine were deeply reddened, and there was a notable amount of puriform fluid; the right flank contained only some serous fluid, but there was puriform matter in the ileo-cæcal fossa, and a good deal in the true pelvic cavity. The large intestine was greatly distended; the small was little, if at all. The cæcum was very large. The transverse colon descended from the right hypochondrium to the top of the hypogastrium, and ascended again to the left hypochondrium. The descending colon was moderately, the rectum greatly, distended, and occupied most of the pelvis. On examining the front of the rectum, fæcal matter was seen escaping from a minute orifice. It seemed probable that this escape had only occurred after death, and that it had no share in setting up the peritonitis. On laying open the small intestine, extensive traces were found of former ulceration of Peyer's patches. They were of a bluish-grey colour, and the mucous membrane was in great part destroyed. The large intestine appeared healthy internally until arriving at the stricture, which was situated six or seven inches from the anus. Here there was considerable thickening of the coats of the bowel, for the space of about an inch—the tissue being firm, and creaking under the knife. On laying open the rectum, the stricture was found to admit the middle finger pretty easily; the canal of the strictured part was red, and the mucous membrane appeared wasted and destroyed. At the upper and lower orifices of the canal the mucous membrane appeared as if pervaded by a whitish-grey growth, which formed a wavy, sinuous prominence, encircling the canal. None of this growth existed within the canal of the stricture. The coats of the bowel in the strictured part were weak, and readily yielded to traction, so that the part tore in removing. This was not the case at the seat of thickening. Microscopic examination of the swollen part of the rectal mucous membrane showed the tissue apparently infiltrated with epithelium-like particles—in fact, it seems to be made up of these and a fibroid stroma. The growth is no doubt an epithelial cancer, which has invaded the coats of the intestine. Heart: The right auricle was much distended. On cutting the cavities across carefully, the right ventricle was found much distended and filled with soft black coagula; the left was rather widely open, and contained similar black coagula. The walls of the ventricles were flaccid; the valves appeared healthy. The size of the heart was rather small. Rigor mortis was slight. Body was rather emaciated. The large intestine contained a prodigious amount of fæces of healthy appearance.

The chief points for remark in this case are the chronicity of its course and the (consequent) mildness of its symptoms. They came on, in fact, so gradually that the system in a measure became accustomed to them, and no stormy reaction ensued. It is clear that it is not the circumstance of the large intestine being the seat of lesion which determines the mildness of the symptoms; for in Case 1, where the cæcum and ascending colon were affected, they were severe, and proved rapidly fatal. The small amount of injection which the bowel could receive showed that the obstruction must be low down. The worm-like appearance of the stools pointed strongly in the direction of stricture. The statement that she had long suffered from diarrhœa might have been misleading to a young hand, if he had not been aware how commonly patients designate any rectal irritation by that name, or how often fæcal impaction is attended with actual watery mucous discharge. The efficacy of the aloes and nux vomica in enabling the large intestine to evacuate in part its contents, in spite of the obstruction to their passage, is noteworthy, though some suspicion may be entertained as to this provocation of intestinal activity having had something to do with the onset of the peritonitis. It is also very remarkable how the existence of a ring of morbid growth, which had destroyed at any rate the mucous coat, but had not by any means blocked up the canal, sufficed to cause such very considerable opposition to the onward passage of the contents. No doubt, however, the width of the channel after death would appear somewhat greater than it was during life. Abercrombie considers that mere paralysis of the muscular actions of a tract of intestine may suffice to interfere very seriously with the progress of the fæcal contents.

Case 5.—J. D., aged 17, carpenter's labourer, admitted October 23, 1871. A tall, laxly-made youth. Ill since October 20 with pain in abdomen, most severe on right side; was first sick on night of 21st. No sleep for several nights. Bowels acted on 20th and 21st, but not since, though he has had oil and enema. The action was slight on 21st. No blue line on gums. At present: Pulse 124, of good size; temperature 99·7°. Urine is rather full-coloured, acid, clear, sp. gr. 1036. Lies at full length; abdomen motionless; upper chest moves freely. No hernia can be discovered. Abdomen tender, dull at both flanks; pain is constant all over it. When he is going to vomit, it grips him, he says, about the navel. Low diet; ice; poultice to abdomen. Opii gr. j. 2dis horis. Baln. calid.

October 24.—Much relief from warm bath; pain ceased for one hour, and he was not faint. Countenance anxious. Pulse 102; temperature 98·8°. Complains of twisting and bruising pain about navel. Repeat bath; a large enema.

25th.—About a quart of enema was thrown up; it returned without the least appearance of fæcal matter. Pain very bad; very little sleep; aspect distressed and sad. Temperature 99°. Has vomited copiously green semi-stercoraceous matter. Pulse 104. Pt. pil. opii, strychniæ gr. $\frac{1}{20}$ + acidi nitrici ♏j. + aq. ℥ss. quater die.

28th.—On night of 26th he had very copious vomiting, in consequence of yielding to his craving thirst. Since then the amount of ingesta has been limited, and the sickness is much less. Says he feels better, but has had no stool yet. Temperature 97·8°; pulse 93. Pulse on 27th compressed by 366 gr.

31st.—Has been doing well since last report; has had very little pain or sickness. Beef jelly and a little milk and ice have been his chief support. The opium has been given less frequently; about six grains in twenty-four hours. Pulse 84, good. No stool has been passed till 2 p.m. to-day, when he had a large fairly natural evacuation, chiefly solid. Omit opium.

November 2.—Has had several copious solid stools; no sickness; takes more food. Pulse small and weak; right radial compressed by 120 gr., left by 135 gr. Two eggs.

4th.—Up and dressed; doing very well. After this he went on well, except that some diarrhœa and pain made it necessary to confine him to bed for some days; but he soon improved, and went out November 15.

The precise condition causing the obstruction in this instance was (happily) not ascertained. It seems tolerably certain that it was not a cancerous stricture, a gall-stone, nor an intussusception; but it may have been a local palsy, a twisting of the mesentery, a sharp flexure of the bowel on itself (as in Case 1), or possibly an incarceration. At all events it was some condition which was removable by nature or art, or by both together. The good effect of limiting the amount of fluid taken was very conspicuous, and bears out fully Dr. Brinton's remarks on the subject. Two remedies were employed, both in pretty full doses: that first given, the opium, produced no decided good effect in two days, and subsequently it was given at a diminished rate along with the strychnia. This did not, either, accomplish much until the amount of ingesta was restricted, but afterwards the patient passed four days with great mitigation of the symptoms, and in a fairly satisfactory state, before decided recovery commenced. Were this the only case in which I have seen strychnia administered with apparent advantage, I should lay no stress upon it. But, apart from direct experience, I think there is good reason for regarding it as a hopeful remedy. If, as Dr. Brinton avers, distension (paralytic) is still the *bête noire* of the story, a drug which can reanimate failing nerve-power is surely appropriate to such a condition. Again, strychnia is notoriously of virtue in arresting the vomiting of an irritable stomach, and quieting its excessive, irregular, and exhausting muscular action; and this is also just what is wanted in most cases of intestinal obstruction. Here we have to cope with pain, irregular and abnormal nervo-muscular action, and exhaustion. Now, all these we may reckon as modes and degrees of paralysis, and to all the same kind of medication is appropriate. Whatever be the cause of the obstruction, whether it be removable or not, our success in saving or prolonging life will be just in proportion as we can obviate these evils. The slight extent to which they were present in Case 4 accounts sufficiently for its long continuance.

For pain, opium is generally the best remedy. By it we save the nervous system the wear and tear of agony, we obtain sleep, and we shield the cardiac nervous centres, more or less, from the paralysing inhibitory impressions conveyed from the irritated districts. Opium, moreover, in some conditions

certainly promotes peristaltic action powerfully; so that it seems capable of acting as a conservator of force to both sensory and motor departments of the nervous system. Strychnia, on the other hand, is efficacious chiefly in re-creating motor nerves, and in this respect is greatly superior to opium. In these two remedies, then, we possess valuable agents for counteracting the pain and paralysis by which so much of the evil attendant upon intestinal obstruction is worked out.

The action of belladonna is not fully ascertained; it appears in small doses to allay pain (like opium), and in larger to increase the energy of intestinal motor nerves. Brinton, however, speaks of its reducing (in small doses) peristalsis to a zero. It does not seem impossible to conciliate these apparently opposite opinions.

To speak of these drugs as stimulants or sedatives, describes, I believe, their action imperfectly; they are rather *re-creators of nerve-force*, and the primary result of their successful action will not be any evident exertion of force, but the return of a capacity for exerting force efficiently on the application of suitable stimuli. What a feed of corn, a draught of ale, or a dose of opium is to an exhausted horse, the drugs above-mentioned are to exhausted intestinal muscles and nerves. When, as Abercrombie says, a case of intestinal obstruction yields to a full dose of opium after the most active purgatives have been tried in vain, is not the explanation that the latter were simply an unnecessary and injurious stimulus, which gave no force, while the opium did? So, also, in a case given at p. 691 of my work, symptoms of intestinal obstruction subsided under the use of strychnia, but no evacuation took place until a mild aperient was administered. Here it seems pretty evident that the strychnia restored nerve-muscular force, but did not call it into action.

The nervine remedies alluded to commend themselves still more to our attention, if we consider that in the great majority of cases of obstruction the mischief is brought about by some derangement of the nervous apparatus regulating the intestinal movements. Given, a normal working of this apparatus: and intussusceptions, twistings, incarcerations, and paralysis could hardly occur.

OBSERVATIONS ON

DR. C. B. RADCLIFFE'S THEORY OF THE GENESIS OF PAIN.

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(*Concluded from page* 765, vol. ii., 1871.)

HAVING adduced the pathological facts just discussed in support of his position, that pain is antagonised by an over-active condition of the circulation, Dr. Bland Radcliffe then goes a step further, and declares that "*there is reason to believe that pain of a neuralgic character is antagonised rather than favoured by inflammatory excitement of the nervous system.*" In order to prove this remarkable proposition, he appeals to facts of a nature very similar to those already discussed. He says that, when he himself was suffering from neuralgia, the pain subsided when "local tenderness, redness, and swelling, with general feverish reaction" set in; that it is "the rule rather than the exception for toothache to come to an end when the face becomes swollen and inflamed"; that the stabbing pains, which so generally precede the inflammatory eruption of herpes, scarcely ever remain after this eruption is fully developed; and that in three cases of sciatica which he mentions, "the plain fact was that the severe neuralgic pain, which had existed for some time previously, was at an end when the swelling and tenderness gave evidence of the establishment of inflammation in the course of the sciatic nerve." These cases are in no respect essentially different from those which I have already discussed, and which I have shown to afford no real support to the theory in favour of which they are put forward; but when an attempt is made to adduce facts in proof that pain is antagonised by inflammatory excitement of the brain and spinal cord, the facts have to suffer a tremendous strain.

Dr. Radcliffe says—"Even in inflammation of the membranes of the brain, severe pain in the head cannot be looked upon as a symptom of this inflammation. Three or four years ago I had a youth in the Westminster Hospital with well-marked symptoms of acute cerebral meningitis. When I first saw him he complained of frequent rigors, and of a constant agonising pain in the head, and at this time his face was pale and perspiring. His ears and his head generally were below the natural temperature, his pupils somewhat dilated, and his pulse contracted and feeble. Eight hours afterwards, when I saw him the second time, his face was flushed, his head burning hot, his pupils contracted, his eyes ferrety, his skin hot and dry, his pulse strong and full, and fierce delirium had taken the place of pain—and this, so far as my experience goes, is the regular history of pain in this disorder." In short, while the cerebral inflammation was being developed, the pain was so intensely acute as to result in the loss of normal consciousness, which was replaced by "fierce delirium"—a state when the brain, in respect both to feeling and thinking, is functioning with such tumultuous and overwhelming rapidity as to prevent either any thought or any feeling from making an abiding impression, and hence, most fortunately for the sufferer, no consciousness or memory of pain endured during the delirium is retained.

In cases of inflammation of the membranes of the spinal cord, Dr. Radcliffe admits that "pain along the spine," as well as in the extremities, "must be regarded as the most prominent symptom: but," he says, "it is brought on by any movement of the trunk, and in great measure, at least, it may be prevented by avoiding such movement. It is often brought on, also, by moving one of the extremities—the pain in this case beginning in the limb, and extending thence to the spine. It seems to depend—in part, at least—upon the same cause as the pain of pleurisy—viz., the dragging of an inflamed and, therefore, exquisitely tender serous membrane."

The presence of pain in cases of uncomplicated inflammation of the spinal cord itself cannot, unfortunately, be referred to "the dragging of an inflamed and, therefore, exquisitely tender serous membrane"; and, as such pain is stubbornly irreconcileable with his theory, he questions its existence in such cases. It is admitted that Dr. Brown-Séquard describes "a constant pain in the part of the spine corresponding to the upper limit of the inflammation of the cord," as a characteristic symptom; "but," says Dr. Radcliffe, "I question very much whether this statement is in accordance with well-sifted clinical facts. . . . At any rate, it is certain that there is not in uncomplicated myelitis that severe pain in the back and limbs which is brought on or aggravated by movement in spinal meningitis." He frankly states that "in three cases of well-marked spinal congestion, and in many cases of partial congestion," he has observed "dull aching along the spine increased by warmth," and then, unfortunately for his theory, he makes this additionally damaging admission—"I have also noticed the same symptom in myelitis and spinal meningitis . . . in fact, so far as my experience goes, I can say that this symptom is likely to be met with in congestive or inflammatory disease of the cord." In regard to each of the spinal affections mentioned, he says—"Absence of spinal tenderness I believe to be the invariable rule"; and yet, further on, when adverting to "spinal irritation," he says—"Spinal tenderness would seem, indeed, to deserve to be regarded as the pathognomic symptom of spinal irritation; for *in the few cases of spinal meningitis, myelitis, or spinal congestion, in which it is met with*, there is reason to believe that its presence may be accounted for by the association of the phenomena of irritation with that of inflammation or congestion."

But, in truth, the facts observed by the great body of impartial and competent Professional witnesses, confute Dr. Bland Radcliffe's assertions, that "even in inflammation of the membranes of the brain severe pain cannot be looked upon as a symptom of this inflammation"; that the pain of spinal meningitis may be, "in great measure, at least, prevented by avoiding" movement of the trunk; and that "there is not in uncomplicated myelitis that severe pain in the back and limbs which is brought on or aggravated by movement in spinal meningitis." In Dr. Copland's definition of cerebral meningitis, the first words are—"Acute pain in the head," and, in describing the symptoms of the disease, he says—"*Acute meningitis* of the convexity of the cerebral lobes is attended with violent pain, which is exasperated at intervals."(a) This description is endorsed by Aitken.(b) Dr. Watson says—"speaking generally, this complaint is marked by pain of the head"; and, referring to a case by way of illustration of the disease, he remarks—"There was no symptom to mark the extensive mischief within the head, except the *pain*"; and then, having described another case, he says—"There again pain was the most prominent symptom."(c) Dr. Wood

(a) "Medical Dictionary," vol. i., p. 228.
(b) "Science and Practice of Medicine," vol. ii., p. 275.
(c) "Principles and Practice of Physic." Fourth Edition, vol. i., pp. 379, 380, 81.

mentions that—"*along* with the usual *febrile* phenomena which usher in acute inflammation, are conjoined intense headache, *redness of the face*, suffusion of the eyes, an excited or wild expression," etc.(d) Testimony to this effect abounds, in fact, in the writings of every author who has given especial attention to the subject; and though it may be admitted that cerebral meningitis and cerebritis generally co-exist, the existence of pain in cases designated cerebritis, while confuting—so far as the meningitis, supposed to accompany it, is concerned—Dr. Radcliffe's assertion of the absence of pain in that malady, confutes at the same time his broader proposition that, as a general rule, pain is antagonised by inflammation. "In cases of cerebritis," says Dr. Flint, "a pretty constant premonition [of coma] is *persisting cephalalgia*, referred to a particular spot or limited to one side of the head, that is unilateral."(e) Even Dr. Hammond, who, to a considerable extent, is a follower of Dr. Radcliffe, dissents from his statement concerning the facts in question. Of "the stage of invasion" of acute cerebritis, Dr. Hammond says—"The most prominent initiatory symptom is headache"; and of "the stage of excitement," he adds—"The pain in the head augments in violence, and is increased, by pressure on the scalp, or even the slightest movement."(f)

Again, the evidence on all sides in respect to spinal meningitis, as well as myelitis, proves indubitably that the actual facts have a totally different aspect from that in which, tempted by his hypothesis, he has been induced to present them. Speaking of the two chief and most constant symptoms—"symptômes qu'on pourrait considérer en quelque sorte comme signes pathognomoniques de l'inflammation aigue des membranes de la moelle"—Ollivier says one of them is "une douleur plus ou moins vive dans la region du dos: elle semble partir en général du point ou l'inflammation a la plus d'intensité, et là elle est aussi toujours plus aigue."(g) "Acute pain in the course of the spine" are the first words of Dr. Copland's definition of spinal meningitis. He adds—"the pain is severe, and although beginning in a particular part or region, generally extends more or less along the spine." And, in like manner, he observes—"Acute myelitis commences with or without chills, or rigors, with acute deep-seated pain in some portion of the spine that is much aggravated by motion."(h) "The commonest symptoms of inflammation of the meninges of the cord," says Dr. Watson, "appear to be pains, often intense, extending along the spine, and stretching into the limbs, and aggravated usually by motion, and simulating, therefore, rheumatic pains."(i) Dr. Aitken says, meningitis "is characterised by pains in the back. . . . A greater or less degree of pain of the back, *proceeding from the point of greatest intensity of inflammation*, is one of the most prominent symptoms."(k) And, again, concerning myelitis, he says, "the patient complains of pain in the back *corresponding to the seat of greatest intensity of the inflammation*."(l) Concerning spinal meningitis, Dr. Hammond affirms that "there is intense pain in the back, which is aggravated by every movement of the patient"; and, referring to the symptoms of acute myelitis, he says, "Among the first, pain in the back at the seat of the lesion is prominent. It is not, however, so intense in character as that attendant on meningitis. The limbs below the seat of the inflammation are likewise affected with pains, which are mainly confined to the trunks of the nerves coming from the affected portion of the cord. A pain is also experienced, in the great majority of cases, at the upper limit of the inflammation, and which extends round the body at that height."(m) In respect to each of these affections, the testimony of Dr. Flint(n) wholly confirms the truth of the authoritative statement just quoted, and I am sure the great body of Physicians, who are not committed to any theory on the subject, will recognise them as accurate representations of the facts in question. My own experience of these maladies assures me that those statements are true, but in this case I prefer to rest my arguments on the evidence of the most widely recognised Medical authorities; and, as I have now shown, they warrant me in asserting that, as a general rule, pain is not only among the chief symptoms, but is the predominant symptom of inflammation both of the cerebral and spinal membranes, and of the brain and spinal cord themselves. I say *as a general rule* because occasionally, though rarely, cases of myelitis occur in which little or no pain in the back is complained of. In these exceptional cases it is probable, I think, that either the inflammation does not extend to the sensory elements of the cord, or that they are so swiftly and so completely congested—possibly disorganised—at the very outset of the disease as at once to prevent them, at the seat of inflammation, from functioning at all; in either case, as is easily conceivable, there may be little or no pain.

Such being the facts of the case, according to the authoritative observers whose evidence I have just quoted, I was somewhat surprised to find that the classical work of Ollivier is appealed to by Dr. Radcliffe in support of his doctrine. Referring to the alleged "absence of pain in the spine and extremities" in cases of myelitis, he says, "Pain, either in the spine or elsewhere, is not mentioned, for example, in the nineteen cases, acute and chronic, given by Ollivier, except in three, and of these three the myelitis was complicated with meningitis in two, and in the one remaining the symptoms justify the presumption that the same complication existed." But though this statement is literally true, it is not the whole truth. Regarded as it stands in the context of Dr. Radcliffe's article, it certainly impresses his readers with the conviction that he has the great authority of Ollivier in support of his doctrine that inflammation of the spinal cord is unaccompanied by pain at the seat of inflammation. As about fifty years have elapsed since the reports in question were written, any explanation of their silence concerning the presence or absence of pain is unverifiable now, and therefore useless. I believe, however, that a complete explanation of that silence is derivable from a due consideration of the sources and character of those reports, and that if Ollivier were still in the flesh he would be more surprised even than I was on finding his cases appealed to in support of a doctrine diametrically opposed to the one he taught, the latter being concealed in silence meanwhile. In his explicit description of the symptoms of myelitis, Ollivier says, "The patient complains of a deep and, more or less, intense pain at some point along the spine—pain which corresponds to the part of the nervous centre which is the seat of inflammation. This pain may extend itself along the whole length of the back." He adds, "According to Klohss [who wrote on myelitis], the pain is augmented by lying on the back, especially if the patient lies on a feather bed, and not on a mattrass."(o)

Dr. Radcliffe's assertion that, in cases of cerebral meningitis, the pain precedes but does not accompany the stage of inflammation, receives no countenance from any Medical writer I am acquainted with; and though it is generally recognised that, in cases of inflammation of the membranes of the spinal cord, the accompanying pain is increased by movement either of the trunk or of the limbs, none of the authorities mentioned give the faintest intimation that the pain of spinal meningitis does not exist unless when induced by movement. In maintaining this novel position, that the pain is almost wholly due to movement of the trunk or extremities, and may, therefore, be almost wholly prevented by avoiding such movement, Dr. Radcliffe stands alone.

On the subject of spinal tenderness, Dr. Radcliffe does not seem to me to have defined his views with sufficient clearness: anxious as he is to demonstrate that in cases of congestion of the spinal cord and of inflammation of both the cord and its membranes, absence of spinal tenderness is the "invariable rule," he announces, as a distinct proposition, that "pain, the result of tenderness, would seem to be associated with a state of inflammatory excitement in the nervous system." But if it is, why is he so ready as he is to recognise the presence of spinal tenderness in cases of so-called "spinal irritation," which, as he declares, denotes "a deeply depressed condition of circulation in the spinal cord"? and why does he seek to prove that spinal tenderness is invariably absent in cases of inflammation of the cord and its membranes? I may of course misunderstand him; but, after carefully considering all he has published on the subject, it seems to me that in his writings "tenderness" plays two parts differing completely from each other in character. According to his theory, "spinal irritation" is an especially characteristic feature of the neuralgic constitution which, as he says, is associated with a depressed condition of the circulation; therefore, if I understand him

(d. "Practice of Medicine," vol. ii., p. 609.

(e. "Practice of Medicine," p. 602.

(f. "A Treatise on Diseases of the Nervous System." By William A. Hammond, M.D. New York: 1871. Pp. 219, 220.

(g. "Traité de la Moelle Epinière et de ses Maladies." Par C. P. Ollivier. Deuxième édition, tome second, pp. 594, 597.

(h. "Medical Dictionary." Art., "Inflammation of the Membranes and of the Spinal Cord."

(i. "Principles and Practice of Physic," vol. i., p. 481.

(k. "Science and Practice of Medicine," vol. ii., p. 453.

(l. *Ibid.*, vol. ii., p. 457.

(m. *Op. cit.*, 456.

(n. "Practice of Medicine," pp. 592, 634.

(o. *Op. cit.*, vol. ii., p. 701.

rightly, he adduces "tenderness" of the spine in cases of spinal irritation as evidence of that neuralgic diathesis or extreme nervous excitability which he regards "as a sign of defective vital power in general, and of defective nerve-power in particular." Having presented "tenderness" in the character just mentioned, he makes the utmost possible effort, and even ignores well-authenticated facts, in order to ensure the absence of that symptom, as well as of spine-ache, whenever meningitis or myelitis are on the stage of discussion; for the introduction of tenderness of the spine as a sign both of a depressed circulation in the spinal cord and of that extremely exalted condition of the circulation constituting inflammation would be glaringly contradictory. Dr. Radcliffe believes that the nature of the proximate cause of pain of a neuralgic character differs fundamentally and essentially from that of the proximate cause of "pain the result of tenderness;" accordingly he thinks it necessary for the sake of his theory to insist on that difference, and apparently does not perceive that the co-existence of pain, even "when the result of tenderness," with "a state of inflammatory excitement in the nervous system," invalidates that theory. For what is the pathological significance of "pain, the result of tenderness"? I venture to affirm that it is excessive excitation of the sensory nerve-centres consequent on excessive excitation of the peripheral ends of the sensory nerves within the area of the tender region. The tender region is tender for one or both of the following reasons:—(1) Because its sensory nerve-centres are in a state of excessive excitability (due, as I affirm, to hyperæmia of those centres); or (2) because it is the seat of inflammation of some grade of intensity. It is tenderness of the second kind to which, as I apprehend, Dr. Radcliffe refers. Now, if the tenderness of this kind be produced by inflammation pure and simple, the existence of such tenderness seems to me to be a fact wholly at variance with the requirements of his theory. Tenderness means a great susceptibility of the tender part to external impressions which are capable of exciting pain in it with preternatural facility; and while this great susceptibility is a condition which, as Dr. Radcliffe assures us, is peculiarly favoured by a depressed condition of the circulation, pain itself, he says, is associated with a reversal of the normal state of electricity in the nervous centre in which the painful nerves converge—a reversal consequent, as he also says, on a deficiency of arterial flood in that centre. In recognising that "pain, the result of tenderness, would seem to be associated with a state of inflammatory excitement in the nervous system," he virtually recognises that at least half of the whole region of pain is in a state of inconquerable insurrection against his theory, for he has given no explanation of the existence of this vast exception to it—and it may be safely presumed that if he could have given one he would have hastened to do so. After placing myself in imagination by his side in the "region of abstract theory," and scrutinising the entire area of the pathology of pain through his theoretical telescope, I can discover no vestige of a reason by which the existence of that vast province of pain associated with a state of inflammation is so explicable as an exceptional phenomenon as to be reconcilable with the doctrine in question.

But while dissenting from Dr. Radcliffe's conclusions, and noting his occasional straining of facts in order to make them support his hypothesis, I feel compelled to express my admiration of the general excellence of both the method and spirit of his investigations. His work is a remarkable example of unwearying labour, patient ingenuity, and skilful selection, arrangement, and interpretation of facts seemingly subservient to the theory they are designed to support; it also displays unwavering loyalty to the theory espoused, logical acumen in the advocacy of it, and, throughout, a spirit of modesty which causes him to preface almost every one of his numerous propositions—even the most dogmatic of them—with the formula, "it would seem." It may be true that, in practice, a man who is guided by a false theory is a dangerous man, and the more especially dangerous, the more thoroughly he is faithful to it; but in the region of ideas, the man who attempts the solution of hitherto unsolved problems of great practical concern, by means of a comprehensive, ingenious, and more or less logically coherent hypothesis, and who exhibits a persistent and practical allegiance to it, is a public benefactor, even though that hypothesis should prove untrue—for, whetting the appetite for facts in confirmation and in confutation of it, it awakens, stimulates, and guides observation, provokes discussion, and, by the friction of thought with thought, develops that intellectual light which ultimately leads to those sound generalisations speedily recognised by all investigators as really representative of truth itself.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

CASES UNDER THE CARE OF MR. ERICHSEN.

[For the notes of the following two cases we are indebted to Mr. Curtis.]

Fracture of the Nasal, Superior Maxillary, and Malar Bones—Recovery.

A. B., aged 30, was driving a waggon on the day of admission, when the horses took fright, and he was thrown out. The two wheels passed over the back of his head, as he was lying with his face to the ground. When admitted, immediately after the accident, there was unnatural mobility of the whole of the palate and upper teeth, so that, when the finger was placed behind the upper incisors, the two upper jaw-bones, the nasal bones, and the hard palate very easily were moved in one mass in an antero-posterior direction. There was considerable ecchymosis of both sets of eyelids, and of the upper portion of the face. There was some bleeding from the nostrils, which was readily checked by plugging. On the back of the occiput was a cut two inches in length, but no sign of concussion of the brain or fracture of the skull. He was quite conscious, and gave a coherent account of his accident. No fracture or irregularity could be felt from the inside of the mouth, nor was there crepitus on moving the upper jaw; but, after careful examination, it seemed that the nasal bones were fractured transversely at the root of the nose; also, the malar bone on each side, close to the articulation with the superior maxillary bone; and the ascending plate of each palate bone and the pterygoid processes must also have been fractured, otherwise there could not have existed such marked mobility.

Carbolic dressing was applied to the wound at the back of the head, and the head bandaged in such a way as to give some support to the fractured bones. He continued to do well, and on the thirteenth day after the accident could bring his teeth together with a distinctly audible snap. On the twenty-fourth day he was discharged.

Fracture of Superior Maxillary, Nasal, and Ethmoid Bones and Zygoma on each side—Rupture of Liver—Death.

F. B., aged 22, a potman; believed to be sober at the time of the accident. All that was known of his accident was that he fell over the banisters of a staircase—a height of thirty feet—on to a boarded floor. When picked up he was bleeding profusely from the nose and mouth, and three of his teeth were found near him. On admission crepitus was felt about the whole of the face. He was partly conscious, but complained loudly of pain. There was a small wound near the bridge of his nose, and another through the lower lip. He continued groaning and apparently in great pain, until his death, two hours after admission.

At the post-mortem examination, conducted by Mr. Marcus Beck, the nose was found completely smashed, and all the front teeth of the upper jaw were gone. The skull was opened, but no fracture of the bones existed. The brain was uninjured. The lower jaw was broken on the left side, immediately behind the last molar tooth. The whole of the alveolar part of the upper jaw, with the teeth, the hard and soft palate, and the pterygoid plates of the sphenoid, were detached from their connexions, and could be removed in one piece, after separation from the soft parts. Another fracture, vertical in direction, ran through the upper part of each superior maxilla, into the orbit, and backwards into the spheno-maxillary fossa, so as to separate the part of the bone to which the malar bone is articulated. On the right side the zygoma was fractured close to the malar bone, and on the left close to its root. On this side the fracture was not quite complete; the compact tissue on the surface, not having given way, the bone was bent. Thus, on each side was a fragment consisting of the malar bone, with parts of the superior maxillary bone and zygoma; and on raising these the cavity of the antrum on either side was fully exposed, filled with clotted blood. The nasal processes of the superior maxillary bones, the nasal bones, the os unguis, the ethmoid, and the vomer were broken into innumerable fragments, of which no exact description is possible. The lungs were found congested, and the bronchi full of frothy, blood-stained fluid,

and a few patches of subpleural extravasation of blood of variable size; the largest about an inch in diameter. The third and fourth ribs on each side were fractured about their middle, and the seventh cartilage of the left side was fractured. In each mediastinum, but more especially in the posterior, was found a quantity of clotted blood, the source of which could not be traced. The abdomen contained a small quantity of fluid blood; and several subperitoneal extravasations were observed; one especially large one was over the cæcum. The liver, which was large and fatty, was superficially ruptured in several places upon its surface. The wounds extended through the peritoneum, but not deeply into the liver tissue. On the under surface were two patches, about one inch in diameter, in which the hæmorrhage had separated the peritoneal covering, and formed two small bags of blood.

[For notes of the following case we are indebted to Mr. Barfoot.]

Acute Necrosis of Tibia—Pyæmia before Abscess was opened—Death.

A. C., aged 4, described as always delicate, and as having suffered from bronchitis on more than one occasion. Present illness began, three days before admission, with a severe cold, and two days ago the leg began to swell and became red; the next day the child remained very ill and feverish, and on the following she was admitted. There was no history of any injury. On admission the child was evidently seriously ill; pulse and respiration very rapid. A red swelling existed over the upper part of the tibia, which was brawny and hard, and very tender. A poultice was applied to it, and some aconite was given internally ever hour, but as it seemed to depress her it was discontinued after a few hours. On the day after admission the child was worse. She screamed frequently at intervals. On examination of the thorax, there was found dulness over both bases, with abundant crepitant and subcrepitant râles. The respirations were very rapid, the pulse was 140 and weak, and the skin hot and dry. Towards evening she became very stupid. In the afternoon of the following day an abscess was opened over the front of the leg, from which some non-offensive pus escaped, and about five hours afterwards she died. A post-mortem examination was made eighteen hours after death, and the following is an abstract of the report of Mr. Marcus Beck:—"Rigor mortis well marked. The body was well nourished. Some purplish patches were scattered over the limbs and chest in front. On opening the chest the pericardium was found distended with nearly a pint of fluid. The whole surface of the heart was covered with a layer of lymph one-eighth of an inch in thickness; it was soft, and yellowish in colour. The valves of the heart were healthy. The posterior parts of the lower lobes of the lungs were of a dark red colour, looking at first like pneumonic consolidation. On making sections into them a large part of each lobe was found partially collapsed, but did not sink in water. The upper lobes and anterior part of the lower lobes were healthy. Scattered over the surface of both lungs, close under the pleura, were about a dozen dark-coloured spots, some breaking down in the centre into cavities containing purulent fluid. These deposits were typically pyæmic in character. All the other viscera, including the brain, were examined, but nothing abnormal was found. The throat was examined for ulceration. There was no sign of discharge from the ears. On dissecting the right leg the upper end of the tibia from the epiphysis to about the middle of the shaft was found necrosed; the periosteum was separated from it over the whole of this part, and the pus had lain between it and the bone; below, the periosteum was adherent, and the bone healthy. On section the specimen showed clearly that the disease stopped at the epiphysis. The medulla of the bone was red, but nowhere suppurating. The knee-joint was intact; no other joints were diseased. The fibula was healthy. On examining the veins of the limb the posterior tibial was found adherent to the surrounding tissues so firmly that it could not be dissected out from them; but on laying it open it was found to contain a broken-down clot. This was perfectly decolorised, and had the appearance of thick pus."

ROYAL INFIRMARY, EDINBURGH.

CASE OF PROCIDENTIA UTERI—OPERATION FOR RESTORATION OF THE PERINEUM PERFORMED.

(Under the care of Dr. MATTHEWS DUNCAN.)
[Reported by Dr. J. R. HARDIE.]

M. T., aged 21, has had one child. She was admitted to Ward XVI., November 6, 1871, complaining of falling down of the womb, pain in the back, pain during micturition, and a yellow-coloured discharge. Eighteen months ago she was delivered of her child; six months subsequently a feeling of weight in the lower part of the belly—accompanied with bearing down—set in, and five months later the womb came down between her thighs. It was replaced at this time, but in a few days prolapsed as badly as before, and has remained so up to the present time. Her monthly periods have been regular for the last six months, but had been absent during the previous five months. A yellow-coloured discharge, occasionally tinged with red, has troubled her during the same period.

On a physical examination being made, the uterus is found to be prodident, enlarged, inflamed, and ulcerated to the extent of the size of a half-crown piece around the os uteri. On passing the sound the uterus is found to measure fully six inches in length; and on introducing a sound into the bladder it is found to pass upwards, backwards, and then downwards into a pouch which forms part of the prodident mass anteriorly. A finger inserted into the rectum detected no pouching of that piece of gut. The protruding organs were reduced with ease, and patient ordered to keep her bed.

November 14.—Patient has lain in bed since last report. The bladder and uterus have remained in position; the latter organ now measures only four inches, and no ulceration is to be seen, but a copious muco-purulent discharge is present.

18th.—T. was put fully under the influence of chloroform, and the operation for elongating the perineum was performed. During the operation there was a good deal of venous oozing, which was arrested only partly by applying cold water, and more fully on bringing the cut surfaces in accurate apposition by means of sutures composed of silver. This oozing could easily be seen to proceed from enlarged veins. The parts operated on were then dressed with lint steeped in carbolic oil (1 in 8); patient was put to bed, and orders were given that if she could not make water conveniently by herself it should be drawn off with a catheter. She was ordered a grain of opium at night, or oftener if necessary, and to have fluid nourishment.

25th.—The stitches were taken out to-day. The wound was found to be completely united throughout its extent. The vaginal orifice, which was previously gaping and would have admitted the fist, was now found to be only large enough to allow a single finger to pass into it.

27th.—Yesterday half an ounce of castor oil was administered, and this morning patient's bowels were freely moved without injury to the parts operated upon.

December 12.—Patient continues quite well, and only awaits the fitting on of a proper bandage before being dismissed. Uterus measures a little less than four inches; the discharge is much diminished in quantity, and she makes her water without pain or any effort.

Remarks.—The procidentia in the case related followed closely on childbirth, an interval of only six months elapsing between the symptoms which first indicated an impending prolapsus and the birth of the patient's child, five months intervening between these premonitory symptoms and the complete descent of the parts between her thighs. Although in most cases of prolapsus we have a history of previous childbearing, yet many instances of it are on record in which such had not existed. In virgins even it is not extremely rare. Its occurrence in the humbler ranks of life is well known. This is probably owing to want of proper care during the puerperal state—too early getting up, disturbing the process of involution, and premature return to the ordinary duties of household life, lifting weights, and the like, favouring the production of this complaint. Under these circumstances, the uterus may be larger than usual, the passages more relaxed, and the woman's general health somewhat feeble. It is a process which goes on gradually and insidiously, often without attracting attention until the whole mischief has been accomplished. Much has been written and said concerning the causes of prolapsus or procidentia, and although undoubtedly we know a great deal about co-existing states which may be also among the causes of this disease, still there are important points in its causation—perhaps the most important—which are ill-understood. A study of it in this direction, from a mechanical point of view, promises to bear fruit in the same manner as labour itself has been elucidated. Pain in the back and during micturition, and a discharge, were present. The pain during micturition was probably owing to an irritable state of the mucous membrane of the bladder. The other symptoms are of pretty frequent occurrence, but we often see cases of complete procidentia where all that is complained of is the physical

inconvenience caused by the protruding organs. The component parts of the procidentia were the bladder, the uterus, and the vagina, the rectum being in its natural position, as was ascertained by introducing the finger into it, and finding that there was no pouching of the anterior wall. Owing to the more intimate anatomical relations of the bladder to the uterus, you never meet with a complete case of procidentia into the formation of which the former viscus does not enter; the rectum, on the other hand, is not so closely connected with the uterus, and, therefore, not so liable to be affected in its position by changes in that of the uterus. It not uncommonly retains its normal position when both bladder and womb are wholly procident. The rectum may be alone procident through the vagina, and remain so for a considerable time; but if the bladder be so affected, it gradually pulls the uterus with it. The length of, and the changes in the length of, the uterus is a point of noteworthy importance in the case of M. T. On the uterine sound being introduced, on November 6, it was observed to pass fully six inches; in this state it was replaced, and allowed to remain in position undisturbed until November 14, when it was re-examined, and found to have diminished considerably in size—to measure only four inches. On examination again, on December 12, a still further diminution in size was seen to have taken place. This gradual diminution in the size of the uterus was accompanied by disappearance of the inflamed look the parts presented on admission, likewise by the disappearance of the patches of ulceration. This is a point of considerable importance in practice, and indicates that proceedings sometimes resorted to in order to diminish the size of the procidentia, such as amputating a portion of the cervix uteri, poulticing, etc., are at least unnecessary. The ulceration around the os uteri was pretty extensive, and appeared to possess more of the characters of true ulceration than what is found in most cases of this nature. In many instances a diphtheritic membrane is present, which, on being peeled off, brings into view an abraded condition merely of the mucous membrane, not real ulceration. The ulceration mentioned disappeared, however, with amazing rapidity by keeping the uterus in its place, no local application whatever being used. The only mode of treatment applicable with any prospect of relief or cure in a case like that related, is the performance of the operation of restoration of the perineum where it has been ruptured seriously, or elongation of it where no rupture worthy of the name exists. When the operation of restoration of of the perineum is had recourse to, an amount of elongation is also practised. The operation, although well known, is worthy of a short description here. Preliminary arrangements: These consist in selecting the time for the operation, which should be as soon as possible after a monthly period, in having the bowels freely opened shortly beforehand, and in having the stomach free from food. The patient is placed on a table in the ordinary lithotomy position, the operator sitting on a low stool arranged so as to reach the parts without effort. Chloroform, or a mixture of it with ether, is administered, so as to produce anæsthesia and keep the patient quiet. A piece of integument, about half an inch broad, is then removed, so as to make raw the separate margins of the perineum so far forwards as to be on a level with the orifice of the urethra on either side. By this mode of procedure a horseshoe-shaped wound is produced. During the operation several arteries require to be secured; these are generally situated in front of the sphincter on either side, and further forwards, near the upper end of the wound. Sometimes oozing from veins is present; this is generally arrested by the application of cold water. If not entirely stopped in this manner, the next step in the operation—namely, the closing of the wound by means of silver-wire sutures—generally suffices. In introducing the sutures care must be taken to bring the parts into accurate apposition. The urine is now drawn off, the parts carefully washed and dried, and the wound dressed with a piece of lint steeped in carbolic lotion. Opium, to the extent of a grain at bedtime (or oftener, if need be), is given, so as to prevent any passage of the bowels, and the patient is ordered fluid nourishment. Care must be taken to keep the wound clean by changing the dressing daily. The urine is drawn off by the catheter, if it cannot be readily voided by the patient herself. The stitches are taken out on the seventh or eighth day after the operation, and next day the bowels are evacuated by means of castor oil. After the parts are in a fit state to bear pressure, a T bandage accurately fitted is used. On the under strap of the bandage a sliding pad, so adjusted as to press on the perineum, is placed; this is covered with patent leather. In making the bandage, an accurate fit round the haunches is indispensable, otherwise it is useless. If the perineum were not supported in this manner, the procidentia would probably recur in the course of time, gradually stretching the new perineum. This is prevented by the means described. In some cases, however, the bandage is not found necessary. If these measures combined fail, then a pessary of the kind called disc and stem pessary, varying in size with the requirements of the case, may be introduced.

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Medical Times and Gazette.

SATURDAY, JANUARY 20, 1872.

THE STOCKWELL MURDER.

The trial of the Rev. John Selby Watson for the murder of his wife has, according to general expectation, ended in a verdict of guilty, and his condemnation to death. The jury added a strong recommendation to mercy, on account of the advanced age and previous good character of the prisoner. Everyone will agree with the learned judge who tried the case in his remark, when passing sentence of death, that nobody who has heard this trial can regard the case of the prisoner otherwise than with the greatest compassion.

The facts of the case must be in the minds of all our readers, and it will be necessary to recapitulate them only with the greatest brevity. The Rev. J. S. Watson, a clergyman of the Established Church, about 67 years of age, was, till the end of the year 1870, head master of the Stockwell Grammar School. He was a man self-educated in the main, yet of great classical learning and culture, and an author of considerable merit. He had always led a blameless life, and had lived for many years apparently on terms of affection with his childless wife. In October, 1870, he unexpectedly received notice of dismissal from his post of head master. The loss of income and status thus brought about appears to have preyed on his mind. There were no means of recouping his loss, and his means became exhausted. On the evening of Sunday, October 8, whilst the servant was absent, he killed his wife by beating her on the head with a pistol, and concealed the body in her bedroom (they had for three months slept apart), locking the door, and telling the servant on her return that his wife had gone into the country. From a paper written by the murderer, there appears to have been some sudden quarrel between him and his wife, and he spoke of previous provocations. Either these must have been fictitious, or the guilty man must have exercised great command over his temper; for their only servant, who had lived some years with them, had never noticed them to be on any but amicable terms. A Mrs. Tully, who called at the house on the evening of the murder, and saw both the murderer and his victim, spoke, how-

ever, of signs of displeasure in the former towards the latter. Be this as it may, there was no evidence to reduce the act to one of manslaughter; and the plea set up in defence was simply one of insanity, no attempt being made to deny the crime. After its commission he attempted to remove all traces of blood from the library, in which the horrid deed had been committed. He pointed out to the servant a mark on the stair-carpet, saying that some port wine had been spilt. The subsequent actions of Mr. Watson are important, as bearing upon the question of his sanity. We confess we do not see anything in these during the next three days to show that he was not in the full possession of his faculties. The people who saw him observed no marked change in his conduct. The next day he went to a trunkmaker and ordered a huge packing-case—for books, he said, but apparently for the purpose of stowing away the corpse in it. On the Tuesday he evidently abandoned this idea, countermanding the box, and paying for it with some confusion of manner. He appears next to have contemplated suicide, purchasing prussic acid, but warning the servant that he expected to be ill, and choosing a Doctor to attend him. On the Wednesday he took an insufficient quantity of the poison to destroy life. The whole state of affairs then became apparent. Dr. Rugg, on his arrival, found a document of Mr. Watson's, confessing the murder—"I have killed my wife in a fit of rage"—and giving minute directions as to the disposal of his property. In all this we note nothing but the actions of a sane man, and entirely fail to detect any evidence of insanity, *except the apparent utter absence of remorse.* The careful settlement of his affairs was obviously not the action of a lunatic, and such a person would never for a moment think of hinting to another person his intention to take poison. Lunatics carefully conceal their intentions in this respect. It is more probable that the attempted suicide was a mere blind to raise the question of insanity, and that the guilty man of purpose took an insufficient dose of prussic acid to insure death. By-and-bye, when he was sufficiently recovered to bear removal, the frivolity of his manner attracted attention; but this might also be assumed for a purpose. Whilst in gaol awaiting his trial, there have been noticed in him certain peculiarities of conversation which may be supposed to betray incipient senility, but we confess that they are trifling, and are not for a moment to be allowed to overweigh the complete lucidity of reflection and expression observed in the documents he wrote in the interval betwixt the murder and its discovery; and, indeed, it is not to be wondered at that the guilty man's mind should have become unhinged after the commission of the deed. That he—a man of culture, refinement, character, and position as a clergyman—should in a moment of passion kill in the most brutal manner the object of his youthful affection, the partner of his married life for a quarter of a century in peace and harmony, would surely be a circumstance that would deeply affect his mind, and perhaps eventually result in insanity. Doubtless the evident depression under which he was suffering, consequent upon the loss of fortune and the prospect of beggary, must be taken into account in weighing the question of unsoundness of mind; but, as Mr. Denman observed, if the depression caused by a disappointment were to be received by a jury as a defence for murder, it would greatly increase the risk to human life from violent acts.

We consider that the jury had no option but to return a verdict of guilty, accompanied by a recommendation to mercy. The plea of melancholia set up in defence, and supported by Drs. Maudsley, Blandford, and Rogers, though entitled to every respect, was outweighed by the adverse opinions of Drs. Waterworth, Sheppard, and Begbie. Dr. Maudsley stated that a person suffering from melancholia is subject to bursts of mad violence, and while these outbursts continue his reason is quite in abeyance, and he is unconscious, or nearly so, of what he is doing, and his mind is decidedly deranged. After such an attack, the mind sometimes recovers in a comparatively short time—perhaps within an hour; and immediately before the attack a patient might appear *comparatively* calm and rational, and his conversation be perfectly coherent. But does Mr. Watson answer to this description? Very slight evidence of melancholia antecedent to the crime was offered, and none subsequently; moreover, there has been no recurrence of the homicidal tendency. Of course, the jury returned a verdict of guilty, and declined to entertain the notion of insanity; equally as a matter of course, Mr. Watson will not be hanged. The circumstances of the deed are so unparalleled that there is nothing to guide us in the way of precedent as to what is to be done with such a criminal. To have adjudged him insane would have been to open the flood-gates to every form of brutal murder; to hang him would revolt the feelings of the community at large. Justice will, we doubt not, be met by a commutation of the sentence to lifelong servitude—surely a punishment more terrible to a man of Mr. Watson's stamp than any other that could be inflicted.

THE BRIGHTON POISONING CASE.

The Central Criminal Court has during the last two weeks been rich in cases replete with Medico-legal interest; the trials of Mr. Watson for the Stockwell murder and of Miss Edmunds in the Brighton poisoning case being among the most important of modern times. As in the former, so in the latter, the plea of insanity was raised and set aside, and Miss Edmunds now lies under sentence of death.

Last summer the circumstances of the Brighton case (the murder of the boy Barker), and of a supposed attempt to poison the wife of Dr. Beard, together, no doubt, with much wild fiction, were familiar to the public. The convicted person, Miss Edmunds, a maiden lady, 43 years of age, living with her mother in Brighton, was arrested on a charge of attempting to poison Mrs. Beard, the wife of the prisoner's Medical attendant, by means of a present of cake and fruit supposed to have been sent by an anonymous donor. This charge formed, however, no part of the case on which the prisoner was convicted, Dr. and Mrs. Beard's evidence not being received by the Court. On June 12 last a boy named Barker, staying with his parents in Brighton, died twenty minutes after eating a chocolate cream purchased at the shop of a confectioner named Maynard. A quarter of a grain of strychnia was found in the remainder of the creams purchased, and a quarter of a grain of the same poison in the stomach of the deceased. Creams subsequently taken from the same stock contained no strychnia. It was clearly proved that the accused was in the habit of purchasing strychnia in considerable quantities; of sending boys to the shop of Mr. Maynard to purchase creams, which she subsequently returned in exchange for others; and that after these returns persons purchasing creams at the shop suffered from illness, though much doubt exists whether the symptoms from which these persons suffered were caused by strychnia. Further, she was also accustomed to drop packets of creams in shops visited by her, and these sweets produced sickness—indeed, there is no doubt, as was alleged by the prosecution, that a considerable number of poisoned sweetmeats were in these various ways distributed through Brighton, resulting—in one case, at least—in the death of the victim.

Of course attention was attracted to the shop from which the sweetmeats were procured, and this was increased by the fact that, before and at the inquest, the prisoner asserted that she herself had suffered from eating chocolates purchased at the same shop. After the inquest on the boy Barker she also wrote anonymous letters to his father, endeavouring to confirm the suspicions attaching to the sweets sold by Mr. Maynard. In a word, we have the history of a diabolical and systematic attempt, made in the most cunning manner, to poison innocent people, with whom the prisoner had no connexion, and whom

she did not even know. In this respect the case for which Miss Edmunds was tried differs from her alleged attempt to poison Mrs. Beard; for she had shown an improper affection for Dr. Beard, and had a motive in attempting to get rid of his wife. The theory of the prosecution appears to have been that Mrs. Beard, having discovered the attempt to poison herself, and suspicion attaching to the prisoner, the latter, in order to avert suspicion, resorted to these reckless and diabolical proceedings for the purpose of drawing off attention, and fixing it upon other and unknown persons. We confess that no other supposition bears such an air of *vraisemblance* as this, horrible beyond description as it appears.

The only plea set up in defence was that of insanity, if we except the feeble attempt of Serjeant Parry, in his opening speech for the defence, to show that there was no absolute proof that the chocolates which caused the death of the child had passed from the prisoner to Mr. Maynard. Perhaps, in the existing state of the law, no other verdict could have been returned than that of "guilty." Of the insanity of the prisoner, beyond the act itself, no evidence was tendered. The deliberation of purpose, the artful manner in which her design was carried out, the care and skill shown in diverting suspicion and in fixing it upon innocent people, were great. Of hereditary insanity there was a superabundance of evidence. Her father suffered from acute mania, ending in general paralysis; a brother died in Earlswood Asylum, an epileptic idiot; her sister suffered from violent hysteria, and endeavoured to destroy herself; her maternal grandfather had died at 43 (her own age) from general paralysis. Moreover, it is said that she herself had, eighteen years ago, suffered from hysteria and paralysis. A more complete history than this of family insanity cannot be imagined. And yet, beyond the fact of Christiana Edmunds having suffered eighteen years ago from presumably hysterical paralysis, there is nothing else to induce us to suppose that she is insane. Well might her leading counsel declare himself baffled. A more extraordinary case never came before a court of justice.

Of the legal sanity of the unfortunate woman we entertain little doubt; and yet this case adds new force to the outcry proceeding from so many members of the Profession for a revision and modification of the existing legal definition of insanity. Miss Edmunds knew perfectly well that she was violating the law; she knew the difference between right and wrong; and if she entertained any delusion it was that Dr. Beard had returned her affection. Unwisely, as we think, the presiding judge excluded Dr. and Mrs. Beard's evidence, in the interests, as he said, of the prisoner. We may remark, in passing, that Dr. Beard is thus allowed to rest under an imputation which probably has no foundation in fact. It is well known how this sort of woman conceives an affection for her Medical attendant, and imagines it to be returned. But assuming that this idea of hers was a mere delusion, the existence of such a delusion does not exculpate the culprit from the consequences of an act done under the influence of the delusion; it would not justify her in attempting Mrs. Beard's life; still less, in order to place others on a false scent, in distributing poisoned sweetmeats wholesale among a large community. The rule laid down in M'Naughten's case—that, if the individual accused of a crime labours under a partial delusion, and is not in other respects insane (and this appears to be exactly Miss Edmunds' case), he shall be considered in the same situation as to responsibility as if the facts with respect to which the delusion exists were real—afforded no ground for acquittal on the ground of insanity. Baron Martin, in passing sentence, said the real question was *not whether she was a person of weak mind*, but whether her mind was in a state to distinguish right from wrong. He admitted that she had got into a morbid state of mind in consequence of her relations with Dr. and Mrs. Beard, and that had led to all that had occurred. Yet, surely, such a ruling is a bar to the plea of insanity in nearly all criminal cases. We think it high time that lawyers should reconsider their definition of insanity, though we do not wish to see in every criminal act a deed of insanity.

After sentence was passed, the prisoner pleaded pregnancy in bar of execution. No similar plea for arrest of judgment has been made at the Central Criminal Court since 1847. A jury of matrons, assisted by two Surgeons, pronounced her not to be pregnant. We shall recur to this plea next week.

DR. TODD.

Many of our readers were not a little surprised and shocked at some expressions of Dr. Forbes Winslow in a letter to the *Times* last week. Speaking of the late Dr. Todd, he said that he had known many persons who cursed the day when he entered their house, because he had recommended alcoholic drinks as remedies, and thus had sanctioned a course of tippling to which the patients became slaves. Dr. Winslow has the reputation of being a kind-hearted man, and hence we wonder at his use of expressions regarding one who, alas! cannot defend himself, which are sure to cause pain to his friends and pupils. It is notorious enough, however, that Dr. Todd has been criticised pretty freely, and, as one instance among many, we may refer to what Dr. Gulia, of Malta, says of him, in the work on diphtheria which is reviewed in another column.

Dr. Gulia, after treating of the abuse of bloodletting, proceeds to speak of the abuse of stimulants. "An outrageously Brownian school," he says, "is endeavouring, with little good sense, to establish a treatment not less fatal than that of the Tommasiniani" (the bleeders), "and despises those who, under due restriction, have recourse to bloodletting in idiopathic croup, acute hydrocephalus, and similar cases; meanwhile, they make their patients gulp down wine and brandy and every sort of diffusible stimulant in a routine fashion, and without any moderation, and, loathing every other medicine, try to convert the chemists' into liquor shops. Lucky dogs! they have found the trick of curing with drink—

"'Han trovato il bindolo
Di medicar col ber.'

They are, for the most part, followers of Todd, who holds that where strong doses of alcohol are not used it is impossible to overcome a serious attack of fever, and insists that its use is in no way to be given up, even if the febrile symptoms are aggravated, and delirium or coma, twitching of the tendons, with other adynamic and ataxic symptoms, come on; because 'it is better,' he says, 'to err by excess of stimulants than to give too little;' and elsewhere he asserts that it is much more dangerous to diminish or discontinue alcohol than to give large doses. With Todd's school, alcohol is the single nourishment to which recourse should be had to replace the material wasted in fevers and the greater number of acute maladies, and to withstand functional exhaustion." Dr. Gulia goes on to say, that it is clear that Todd's practice was not universally approved in England. "Il Wilks, fra gli altri," scornfully notices that *aqua vitæ* is with many Practitioners a universal remedy, like revalenta, chlorodyne, Morison's pills, and other mountebank drugs. Wilks adds, "before giving any medicine to the sick in our Hospital, we discuss the benefits likely to be gained from it—such, for instance, as a few drops of ether or a few grains of henbane—and meanwhile we give brandy by the ounce without thinking of its effects."—(*Lancet*, 1867.) "When Todd's practice (*la terapeutica toddiana*) was first made known in France," says Dr. Gulia, "people took him for a stark madman, and in 1869, in a report to the Paris Society of Practical Medicine, it is said that 'the alcoholic treatment has been tried in Hospitals, but there are great difficulties with regard to private families, for these are addicted to routine, and if they were to see a pneumonia treated by *la pozione di Todd*, instead of bleeding and tartar emetic, they would be filled with wonderment, and would lose all confidence in the Physician.'"

This, then, is the indictment against Dr. Todd, as presented by a foreign Physician of candid mind, and free, apparently, from personal bias: that he introduced a reckless method of giving brandy in disease, bad in itself, and bad also because it led to the neglect of therapeutics as a science. There is no doubt in our mind that there is some truth in the accusation. Todd was eminently incautious. The passages which Dr. Gulia cites from his "Lectures on Acute Disease" are very indiscreet, because they were sure to be quoted without the context, and without reference to the particular cases which induced Todd to make so strong a statement; and although Todd's practical sagacity may have led him right, still, strong statements in books usually fall into the hands of persons who misquote and take them in a sense more absolute than their author intended. Let it be granted, then, that Todd was indiscreet, often erroneous, and that reliance on any exclusive treatment (supposing he used one) is, *ipso facto*, vicious. Yet there is something to be said on the other side.

Dr. Gulia, in another page of his work, speaks of Todd with respect, as one of the modern teachers who mitigated the severity of ancient treatment, and quotes Béhier, Gingeot, Pécholier, and others in favour of the discreet use of alcoholic drinks in disease. But, after all, the main fact is, that Todd was an iconoclast, and, like other revolutionists, resorted to something stronger than rose-water. Men who have been thirty years in practice may well overlook his indiscretion on account of the solid work he helped to do. If he ended by promoting a doctrine of imaginary debility and the employment of injurious stimulants, he found a very different state of things at first. A pernicious doctrine, concocted out of Haller's physiology and Hunter's pathology, prevailed, according to which inflammations and fevers were regarded as states of increase of the powers of life, which required lowering, reducing, and weakening remedies. We need not allude to the "vampyrism," justified by such men as Marshall Hall and Elliotson, to show that, though we abhor the alcoholic extreme, there was some excuse for a genial and kind-hearted Irishman like Todd, whose zeal led him from one extreme to another.

Moreover, Todd was right, though not original, in his assertion of the calming effects of weak alcoholic drinks, even for young children, in scarlatina and other adynamic fevers. We know the fact; but whether alcohol is "food for the nervous system" or not belongs to a different line of research.

THE WEEK.

TOPICS OF THE DAY.

The convalescence of the Prince of Wales being, happily, now fairly established, already the question of what honours are to be bestowed on the Physicians who have guided him through his perilous and protracted illness is being discussed, not only in the columns of Medical contemporaries, but in those of the daily press. It has been announced in one morning paper that Sir William Jenner, being already a baronet, is to receive the decoration of a Civil K.C.B., and that Dr. Gull is to have a baronetcy. That these honours will be welcomed by the Profession as marking the debt of gratitude which the whole nation owes to the distinguished Physicians on whom they are to be conferred we do not for one moment doubt; but we would suggest that the present is no ordinary occasion. The heir to the throne of Great Britain has, under Divine Providence, been rescued from death, and restored to the Sovereign his mother, his family, and to the nation, by unremitting Medical skill and care exercised for a long period of weeks. As a reward for these inestimable services, one of the Physicians, who is a baronet already, is to have a civil knighthood such as might be bestowed on an Accountant-General of the Navy or a Governor of Vancouver's Island; the other is to have a *petit titre* which a Minister will give to a popular Lord Mayor, or to a county Member who can be relied on in a division. We would not be supposed to underrate these honours; they are good and worthy rewards for ordinary services, but they are not worthy the occasion. Never was a more fitting opportunity for commencing that reform of the House of Lords, which Earl Derby himself thinks desirable, by the creation of a few life peerages, and of doing away with that absurd etiquette which has hitherto excluded one only of the three learned professions from the Upper Chamber. Let a life peerage be bestowed on Sir William Jenner, at least, whose past as well as present services to the Sovereign of this Realm and to Medical science render him specially worthy of such an honour. It is not for us to suggest how the distribution of other honours should be graduated; but Dr. Gull's baronetcy might be accompanied by some less usual distinction, and Dr. Lowe and the other Medical men who have contributed to the Prince's recovery should not be left without public recognition. In fact, the occasion of the Prince's recovery might well be made the opportunity for the expression of the public appreciation of the services rendered to society by the Medical Profession. A long gazette of promotions in the army and navy always marks the accession of a Sovereign or a Royal marriage. Surely no event can be more deserving of being celebrated by an unaccustomed shower of honours on Medicine than the rescue of the Heir-apparent of Great Britain from impending death, and the consequent diffusion of joy throughout the greatest empire of the world.

The Council of the Royal College of Surgeons have agreed to the scheme for the partial Conjoint Examining Board, which has also been accepted by the Royal College of Physicians and the Committees of the four Universities. It has now to receive the assent of the Universities themselves, and will then be submitted for the approval of the General Medical Council. The objection to the scheme is clear and patent. Whilst the Act of 1815 remains in force, and the Apothecaries' Society is one of the Examining Bodies mentioned in Schedule A of the Act of 1858; whilst, also, that Society does its duty by insisting on a thorough Medical education of candidates and a sufficient examinational test; whilst, moreover, it offers the attraction of a useful diploma at a moderate fee fixed by Act of Parliament, it is childish nonsense to suppose that it will cease performing its functions as an Examining Body. The scheme, as proposed, would exclude its licentiate from obtaining the diploma of Membership of the Royal College of Surgeons without paying a large fee for the diploma of the Royal College of Physicians; the General Medical Council will therefore be asked to sanction the formation of a new grade of Medical Practitioners with one diploma only. As this would be contrary to the general tenor of all the Council has done since it was called into existence, we think it will pause before it does so. At any rate, we do not believe that any such imperfect combination, entailing the serious consequences at which we have hinted, would be approved by the Legislature of the country.

We are glad to announce that her Majesty has been pleased to confer the honour of knighthood on Dr. John Rose Cormack in acknowledgment of his services to English subjects during the two sieges of Paris. Sir John Rose Cormack has already received from the French Government the decoration of the Legion of Honour, in recognition of the skill and devotion he displayed on various battle-fields, and as Medical Officer to the Ambulance Anglaise. For more than thirty years our Profession has not had a more thorough, hard-working member, nor one who has had a greater vicissitude of experience and fortune, than Sir John Rose Cormack. In 1843 he published an account of the fever which ravaged Edinburgh in that year. He had always had a prominent position in Medical periodical literature, and after the cholera of 1854 wrote a good book on the pathology and treatment of that disease. After practising

for a few years in Edinburgh, where he held the position of Physician to the Royal Infirmary, he removed to Putney, and, after a few years, to Tours, in France. After a few more years, seeing an opening for an English Physician in Paris, he boldly went to that capital, and, not content with a mere licence to practise, entered the Medical schools side by side with his own son, studied the most recent doctrines and modes of research, wrote a thesis in classical French, and passed the very arduous Medical examination of the Paris Faculty. Then, when he was beginning to enjoy an increasing practice, came the first siege, then the second—bringing with them exposure on the battle-field and incessant toils among the wounded, together with something very like starvation, which he and his devoted wife and son endured during that terrible winter. No honour was ever better earned. But we may add our wonder why Drs. Gordon and Wyatt, the only two English officers who remained in Paris during the siege, have not received a like acknowledgment of their services.

We hear that Dr. Priestley has sent in his resignation of the offices of Professor of Obstetric Medicine in King's College and of Physician for the Diseases of Women and Children to King's College Hospital—offices which he has held with great distinction for nearly ten years. We are glad to say that it is no failure of health or energy which thus cuts short a brilliant career as an obstetric teacher, but the increase of private practice which has rendered class-teaching and attendance at the Hospital at stated hours impracticable without serious sacrifice. Much, therefore, as we regret the loss of Dr. Priestley's name from the list of English obstetric teachers, we can only congratulate him upon the large measure of practical success which has thus early and deservedly rewarded his labours.

The testimonial to Sir James Paget is to take the form of a portrait, to be painted by Millais, and presented to St. Bartholomew's. The artist is to have a thousand guineas for the work.

We are sorry to see it stated that Professor Huxley's health has been impaired by over-work, and that he has started on a trip to Italy and Egypt by way of Gibraltar.

PROFESSOR FLOWER'S LECTURE ON FISHES AT THE CRYSTAL PALACE.

On the evening of the 12th inst. a very pleasant and most instructive *soirée* was held in the new aquarium at the Crystal Palace, when, besides enjoying a quiet promenade among the tanks, the visitors had the opportunity of listening to a highly interesting lecture by Professor Flower, F.R.S., on "The Structure and Habits of Fishes."

The Professor commenced his remarks by expressing the satisfaction he felt at seeing such a large audience before him, and the hopefulness with which he was thus inspired that Nature was daily becoming more studied by the non-scientific, not only on account of the external beauty, but also for the wondrous structure of her parts. He then proceeded to teach his audience something about one of the numerous groups of living animals—the group which of all others is most prominently represented in the aquarium—viz., fishes. How many persons, he asked, are there whose notions of a cod might not be summed up in the definition that it is a large fish, with proportionally large head, staring eyes, and great gashes in its sides—tasting well with oyster-sauce? And this is not to be wondered at, for rarely is a cod presented to metropolitan eyes in any other condition. Now, he could tell them that in this very aquarium they had an opportunity of seeing a cod as it lives and moves in its native element; now they could inspect the various wonderful parts of its body; and, not only that, but see them freely used. And, that they might study the animal more successfully, he wished to demonstrate to them on the diagram on the wall the various parts to which they ought more especially to direct their attention.

Professor Flower then made a rapid but clear and accurate survey of the external anatomy of the body of the cod-fish, describing in succession the head, the mouth with its apparatus, the ever-open and never-weeping eye, the peculiar olfactory organs, the arrangements for hearing, the body with the *lateral line*, the fins, and, lastly, the organs of respiration. On the two parts of the body last mentioned he dwelt especially, entering at some length into the homology of the pectoral and ventral fins, and into the structure of the gills, and the process by which oxygen is brought into contact with the blood in them.

One extreme deviation from the usual piscine shape was, he said, to be seen in the flat-fishes; and this division was well represented in the aquarium. The true nature of the flattening was pointed out; reference being made to the investigations of recent zoologists on the relative position of the eyes in the embryo, and the gradual change in this as development proceeds. The essential distinction was also carefully drawn between the plaices and the skates.

The Professor concluded by giving his audience some idea of the enormous numbers of fish to be found in the sea. He said there are now about 9000 known species, and that it is computed that probably ten times as many more remain to be discovered by future naturalists. And fishes form but a fraction of the inhabitants of the ocean.

The lecture was listened to throughout with the greatest attention, and at its conclusion the learned Professor was warmly applauded.

Filled with a light which, to many of their number, must have been quite new, the audience now adjourned to the aquarium. This is truly a place of enjoyment for those who, for the sake of watching animal life, willingly sacrifice not a little of their leisure time, and patiently submit to frequent disappointments arising out of untoward accidents, unfortunate sanitary arrangements, or the unexpected exhibition of a taste for eating each other on the part of the occupants of an aquarium. Here one may walk along the main saloon, with its eighteen large tanks, and almost believe himself at the bottom of the sea, so large is the *amount* of water presented to the eye; so natural the rocks; so numerous, so healthy, and so evidently at home the various animals. As we remarked before, fishes perhaps occupy the most space in the aquarium, but the collection of sea anemones is also exceedingly large and fine. But to enumerate all the other animals that abound in the tanks would almost be to give a list of the leading groups of the animal kingdom found in the sea. A beautiful specimen of octopus was prominently exhibited in the centre of one of the rooms, and quite absorbed the attention of many of the visitors.

Professor Flower supplemented his lecture by most kindly passing from tank to tank, drawing attention to many of the anatomical and physiological peculiarities of their occupants, and replying to numerous inquiries addressed to him by the visitors.

Altogether the *soirée* was a most successful one, and we hope it will be followed by others equally so, when the remaining groups of the inhabitants of the sea may be, as regards their structure and habits, as lucidly described as fishes were on the present occasion.

MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY.

At a meeting of the Medical Board of this Hospital, held on Saturday, the 6th inst., Lambert Hepenstal Ormsby, L.R.C.S.I., L.K.&Q.C.P.I., etc., Demonstrator in the School of Surgery, Royal College of Surgeons in Ireland, was elected Surgeon to the institution, in the room of Robert St. John Mayne, deceased. Mr. Ormsby was educated at the Meath Hospital, having served his apprenticeship to Mr. Porter, Surgeon-in-Ordinary to the Queen in Ireland; he also studied at the Royal College of Surgeons, where he has been Demonstrator of Anatomy in that school since the year 1869.

BRITISH MEDICAL BENEVOLENT FUND.

The annual general meeting of this Society was held at 11, New Burlington-street, on Friday, the 12th inst., the President, Dr. Burrows, F.R.S., in the chair. The report showed that during the past year the total receipts in the Donation Department were £1177 6s. 5d. (exclusive of a legacy of £500 from the late Dr. George Cursham, which had been invested for the benefit of the annuitants in accordance with the laws); 113 distressed Medical men or their families had been assisted, the sum of £961 having been paid in grants to the same. In the Annuity Department, dividends from invested money produced £570 13s. 11d., of which £560 had been paid among thirty-three annuitants. The Committee called attention to the fact that they had only been able to elect three fresh annuitants during the year, although there are still twenty-five candidates anxiously awaiting vacancies. Additional donations of £50 from Dr. Gull, F.R.S., and of £52 10s. from Dr. Warburton Begbie, of Edinburgh, were gratefully referred to. Votes of thanks to the Messrs. Churchill for the use of a room for the meetings, to the editors of the Medical journals for their advocacy of the claims of the Fund, to the various officials, and to the Chairman, terminated the proceedings. The following is a list of the officers and committee for the ensuing year:—

President: George Burrows, M.D., F.R.S. *Vice-Presidents:* Edgar Barker, Esq.; Sir H. Holland, Bart., M.D., F.R.S., D.C.L.; H. Bence Jones, M.D., F.R.S.; Henry Sterry, Esq.. J.P. *Trustees:* H. W. Acland, M.D., F.R.S.; Geo. Burrows, M.D., F.R.S.; Dr. G. C. Jonson; Sir James Paget, Bart., D.C.L., F.R.S.; Edward H. Sieveking, M.D. *Other members of Committee:* Edward H. Ambler, Esq.; Edmund L. Birkett, M.D.; W. H. Broadbent, M.D.; H. Bullock, Esq.; John Churchill, Esq.; Andrew Clark, M.D.; Nath. H. Clifton, Esq.; George T. Dale, Esq.; Campbell De Morgan, Esq., F.R.S.; J. F. France, Esq.; D. de Berdt Hovell, Esq.; Thos. Jervis, M.D.; John Liddle, Esq.; W. Martin, Esq.; John Morgan, Esq.; J. T. Mould, Esq.; Harvey K. Owen, M.D.; John C. Steele, M.D.; Richard Stocker, Esq.; E. Parker Young, Esq. *Treasurer:* Charles J. Hare, M.D. *Honorary Secretaries:* Stamford Felce, M.R.C.P. Ed. (Cases); Charles S. Webber, Esq., F.R.C.S. (Finances).

THE BEDFORDSHIRE INFIRMARY.

It will be in the recollection of our readers that in the *Medical Times and Gazette* of October 28 we made some severe observations on the conduct of the Committee of the Bedford Infirmary, in their refusal to carry out the recommendations of the principal Surgeon, Mr. Sharpin, with respect to giving more cubic feet to each patient, and the construction of water-closets projecting from the main building, with a cross-draught through them. These recommendations the Committee rejected by a considerable majority at the Michaelmas meeting. We said at the time that the improvements would eventually be carried out, and we are glad to record that our words were not without effect. The Board, at the meeting referred to, passed the following resolution:—"That there is no evidence before us sufficient to enable us to come to a conclusion upon the subject." Things consequently went on as before until the middle of November, when a case of erysipelas occurred after operation, and within a month five other cases, two proving fatal, and a third nearly so. Upon this the Weekly Board of Management were compelled to sanction the reduction of the number of beds in the Surgical wards at the discretion of the Surgeons; and at the Quarterly Board, held on Monday se'nnight, recommended that Mr. Sharpin's proposition respecting the building of more water-closets should be carried out. The Quarterly Board approved the steps taken by the Weekly Committee in reducing the number of beds in the Surgical wards. After much opposition, these salutary reforms are now being carried out, but the Medical wards are still overcrowded with beds, there not being more than 753 cubic feet to each bed. The reduction, however, of the number of beds in the Surgical wards will soon result in the refusal of admission to urgent cases, and will, no doubt, show the governors the absolute necessity for enlarging their institution so as to enable them to accommodate the same number of beds as hitherto. The statement of the House-Surgeon, who has held the office for nearly twenty years, that the erysipelas began in a female ward in which were nine beds, four being unoccupied, is admitted; but it should also have been stated that the corridors leading from the densely crowded wards communicated directly with this ward, and that the patient attacked lay next the entrance.

ARMY MEDICAL DEPARTMENT.

The following Administrative Medical Officers sailed on Thursday, the 18th inst., in her Majesty's troopship *Serapis*, for India:—Deputy Inspectors-General H. K. Innes, C.B.; R. J. O'Flaherty, C.B.; and M. B. Gallwey. We understand that Mr. Innes relieves Deputy Inspector-General H. G. Gordon, M.D., at Meerut; Mr. O'Flaherty takes the place of Deputy Inspector-General L. C. Stewart at Poonah; and Mr. Gallwey relieves Deputy Inspector-General M. W. Murphy at Mhow. We believe that Inspector-General Beatson, C.B., and Deputy Inspectors-General Dr. Massy, C.B., and Dr. Crawford are likely to sail early in February, to take up their appointments in India—Dr. Massy at Bangalore, and Dr. Crawford at Umballah. We have not yet learned who is to succeed Dr. Crawford as head of the Medical Branch in the Director-General's Office.

INCREASE OF SALARY TO DR. TRIPE.

Good sense and a strict regard to justice have, we are pleased to say, influenced a majority of the Hackney District Board of Works with respect to the treatment of their indefatigable and able Officer of Health, Dr. Tripe. It will be remembered that the Board had passed a resolution to increase the salary of Dr. Tripe. The Hackney Vestry attempted to frustrate this really wise intention, and at a late meeting, by a majority, requested the Board of Works to rescind their resolution. At the last meeting of this Board the "false economy" of the Vestry resulted in a resolution to carry out their original proposition by a majority of 23 to 15.

SIR W. BODKIN ON THE HAMPSTEAD SMALL-POX HOSPITAL.

Compliments from the Judicial Bench are not so common as to be regarded with indifference. The venerable Assistant-Judge of the Middlesex Sessions, on a late trial for robbery of a servant of the Small-pox Hospital, for which she was convicted, thus addressed Dr. Grieve, a witness in the case:—"I take this opportunity of congratulating you on the result of the recent inquiry into the charges made against the Small-pox Hospital of which you were the Medical Superintendent. The effect of those charges upon the public has been very bad indeed; it has not yet passed. I know that people in my neighbourhood have positively refused to go into the Hospital in consequence of the scandalous lies which have been told about it."

PHYSICIANS *versus* PATIENTS.

"Strikes" are not confined to what are erroneously called the "working classes." It is certain that no working men work harder than Medical Practitioners, and in many instances none are worse paid. We recorded last week, in our Correspondence, an all but universal strike of the Medical Practitioners of Valparaiso. We have to add to this a similar proceeding on the part of the Medical gentlemen at Bas-Interwald. The *Swiss Times* states that the Physicians of this peaceful Arcadia have united and struck work, demanding an increase in their fees. The Landrath, however, refuses to entertain their claims, and advises a strike of the patients as the best answer to the demand of the Doctors. We fear that the "remedy would be worse than the disease."

UROSCOPY.

The current number of the *British and Foreign Medico-Chirurgical Review* contains an able summary of recent contributions to our knowledge of the urine, from the pen of Dr. Karl Hofmann of Vienna. Dr. Hofmann is the author of an excellent guide to the examination of the urine, and is in every way a most reliable authority on the subject.

The transformations of albumen have long and carefully been studied, but hitherto without success so far as their ultimate transition into urea is concerned. Frequent attempts have been made to form urea in this fashion in the laboratory, but all have failed, including one recently declared successful by a Frenchman, M. Béchamps. Attempts at forming urea by synthesis have, however, been more fortunate, and another process has recently been added to the number by Basaroff. Certain researches by Cyon as to the origin of urea within the system have led him to believe that it is formed to some extent, if not mainly, in the liver. The more difficult question of the connexion of elimination of urea with high bodily temperature is also referred to, but the results are utterly conflicting, and we shall not further allude to them. But, on the other hand, it seems clearly proved by Senator that in tetanus the urea eliminated is not increased, even when the disease is accompanied by high temperature; neither in his cases was the quantity eliminated greatest about the periods when the spasms were most severe; nor did the kreatinine seem to be increased.

Some interesting researches have been made as to the urine in acute liver-atrophy and acute phosphorus-poisoning. In the cases of poisoning it was noted that towards the end urea was replaced by other nitrogenous materials not known, and that the urates appeared in forms resembling tyrosin. Acute atrophy of the liver gives rise to somewhat similar changes in the urine as phosphorus-poisoning does, but the urine contains notable quantities of leucin and tyrosin not present in the latter, or only present in small quantity.

We also find here some account of the urine in leukæmia. Various observers agree in stating that in this condition the quantity of uric acid is notably increased, although the urea is not in all cases, at all events, diminished. In point of fact, all the researches go to show that though the blood corpuscles are diminished in number, the oxidising power of the blood is not essentially diminished.

Reference is made to the detection of albuminuria by carbolic acid. Hofmann does not give us his own experience; but we confess that our own is unfavourable. There are difficulties in the way of precipitating albumen under various conditions which have yet to be explained. No doubt this is due to the fact that albumen is not invariably in the same form. Thus, Hefsen has shown that in thirty-one cases he has found globulin to be present instead of serum-albumen.

The last portion of Dr. Hofmann's article is concerned with the determination of sugar in diabetes. He mentions a new method invented by Knapp, cyanide of mercury being the reagent. The reaction is finished when the mixed fluids no longer give a brown stain when exposed on filter-paper to the vapour of ammonium sulphuret. Another proposal worthy of note is to use glycerine instead of Rochelle salt in Fehling's fluid. It will remain to be seen how the new fluid will keep.

OVERCROWDING AND DRUNKENNESS AT MANCHESTER.

It is universally admitted, notwithstanding the "Manifesto respecting Drunkenness," that one of the chief causes of the vice is the wretched state of the lower classes with respect to their dwellings. At a conference held in Manchester last week, Professor Leone Levi said that the cause of the increase of drunkenness in that city, during the last ten years, was mainly due to overcrowding, the city in question being the most densely populated of the large towns.

SMALL-POX JOTTINGS.

Small-pox still increases in Stourbridge. Four fatal cases have occurred since the outbreak of the disease. In only one of the fatal cases had the sufferer been vaccinated. It may be remarked that most of the cases were unvaccinated persons. Vaccination seems to have been greatly neglected in the town and district for some time past.——Small-pox still prevails at Mold.——In Hackney Union eight deaths had occurred from the disease last week, and thirteen patients had been discharged. A child, aged 1 year and a half, who had been admitted as a patient to the Homerton Small-pox Hospital, died in forty-five minutes after admission. In the past three weeks sixteen deaths from the disease had occurred in the district.——In Northampton, last week, the borough magistrates held a special session, and heard 120 charges of non-compliance with the Compulsory Vaccination Act. Heavy fines were inflicted in many cases.——Small-pox continues on the increase in Ireland. In the South Dublin Union alone there were, last week, 103 cases; of these thirty are serious. Nine deaths occurred during the week. In the Union Small-pox Hospital no fewer than twenty-seven deaths have taken place of persons who had never been vaccinated. In the Postal Telegraph-office eleven clerks are suffering from the disease. Some of the female clerks are also suffering from it. The disease has broken out in the Royal Artillery quartered in the Portobello Barracks in Dublin.——In Yeovil thirty-nine cases of small-pox are reported. At Charminster, near Dorchester, the disease has also appeared.——The Metropolitan Board of Works has granted an extension of twelve months to the Metropolitan Asylums District Board for the use of the Temporary Small-pox Hospital at Hampstead, and of the wooden huts for the use of the convalescents at Hampstead.——At Marylebone, the father of a child which had been vaccinated by the Vaccination Officer, having refused to allow the lymph to be taken from its arm, the Guardians have instructed their officer to prosecute the father.——The Kensington Vaccination Officer reports that upon his accession to office, nine months since, 107 cases were unaccounted for; 2893 persons had since been vaccinated, out of which 1736 certificates had been received of successful vaccination.——At Newington, during the past fortnight, four fatal cases of small-pox had occurred.——At Wakefield, last week, there were eleven cases in the Hospital.——The small-pox is rife in Gotha, the cases among the civil population of the town exceeding 1000. In consequence of the epidemic the Ducal Court will remain at Coburg for the winter, and the united Parliament of the two Duchies has, for the same reason, been further prorogued.——At Mounthooly, Scotland, a building is being rapidly adapted for the purposes of a Small-pox Hospital. The epidemic, it is hoped, is rather declining in severity.——At Sheffield twenty-seven cases of small-pox were reported in the workhouse, against thirty-seven the week before. Forty-two deaths occurred in the town from the disease in the same period, showing a decline of eight on the previous week; of these twelve were returned as unvaccinated, three vaccinated, and twenty-seven "not stated" as to vaccination.——Five deaths from small-pox are reported in the Poplar Union last week, and seventeen fresh cases were brought under notice. During the same period thirty-five persons were vaccinated at the public stations.——Eighteen small-pox patients are under treatment in the North Kent Infirmary.——At Oxford the weekly report shows six fresh cases of small-pox, making thirty-two under treatment.——There were seven deaths during the past fortnight from small-pox at Halifax, and sixty cases under treatment. To check the spread of the disease in the town, the Guardians of the Union will not allow any scholar who has recently suffered from small-pox, or who has formed part of a family who have suffered, to enter the schools without producing a Medical certificate of convalescence, nor allow to be admitted any new scholars without

their being carefully examined to ascertain whether they have been properly vaccinated, and if not, that they should be immediately revaccinated.——Two cases of small-pox were reported last week at Elland.——The correspondent of the *Liverpool Courier*, at Bonny, Africa, writing on November 30, says—"The town of Brass lies about fifteen miles higher up the river. The small-pox has broken out there, and has been raging for a long time, 500 having died in one day. The Brass men have found out rather a novel way of stopping the epidemic, and that is, whenever a poor wretch takes sick, they cure him 'one time,' by cutting his head off, and thereby saving all trouble."——Ninety deaths from small-pox occurred in the metropolis last week.——In the four Small-pox Hospitals at Hampstead, Islington, Homerton, and Stockwell, forty-two fatal cases were registered, against forty-one and twenty-seven in the previous fortnight.——Small-pox is increasing rapidly in Cork; 117 cases were reported on Monday to the Sanitary Board, and it was stated that the existing Hospital accommodation would be quite inadequate.——In a letter to the Dublin papers, Sir Dominic Corrigan has proposed that patients suffering under small-pox should be conveyed through the streets of that city in shallow baskets or cots, six feet long, resting on poles on men's shoulders. The *Irish Times* says, "no suggestion was ever made so well calculated to drive from the city of Dublin everyone who could leave it."——It is reported from Birmingham that there is a great decline of the small-pox epidemic in that town.——Dr. Aldis, Medical Officer of Health, St. George's, Hanover-square, reports four small-pox patients in the out-wards, three of whom were vaccinated; two were sent to the Hospital.——Mr. Fred. J. Burge, in his report just issued of the health of the Fulham district to the Fulham Board of Works, states—"With regard to the mortality of the 234 cases of small-pox, 40 died; out of 168 vaccinated persons, 10 per cent. died; of 34 unvaccinated persons, 50 per cent. died. It will also be seen that, despite the Compulsory Vaccination Act, 36 out of the 234 cases were unvaccinated persons. The total mortality of our district has been—in Hospitals, 26; within the district, 60; total, 86. From these statistics it will appear that 50 per cent. of unvaccinated persons attacked died of the disease; whilst 10 per cent. of the vaccinated shared the same fate. Amongst the persons included in this return of 234 cases, 32 are taken as undefined —that is, I have excluded from the positive every case in which the absolute 'Yea' is not given, but amongst those I have reason to believe nine-tenths might have been ranked with the vaccinated. Had vaccination, therefore, carried with it the proper results of its operation as a prophylactic against small-pox, no such figures as these ought to be produced."

THE MEDICAL PROFESSION IN VALPARAISO.

We last week published a statement from Dr. Joy, of Valparaiso, as to the position of the Medical Practitioners of that city. We understand, from advices since received, that this has become most unpleasant and unsatisfactory. They have been expected and required by the Government to attend all cases, day or night, with or without payment, whatever the position of the patient might be. This was felt to be a great hardship by the Profession, and a meeting was called of almost all its members in the place, to take steps to remedy the abuse. Certain resolutions were passed in favour of payment by the Government of Medical Practitioners for night and other attendance upon the poor. Nothing could be fairer or more just than this proposition, but it was answered by the insolent and intolerant Manifesto of the Intendant, inserted in our last issue. Upon the issue of this precious document all the Medical Practitioners of the town, with the exception of Drs. Birt and Fischer, resigned, and refused to practise their Profession at all. This was hasty, no doubt, and we believe it would have been better if they had continued to practise under protest against the infamous Manifesto. This, it is true, Drs. Birt and Fischer did, and performed the duties assigned to them. But we regret that there was not complete union, and that all did not act in concert, and in one direction. Never was there a case in which "Union is strength" would have been more manifest. It is stated, but it is by no means certain, that the fourteen seceders from practice had returned to their duties, under a private promise of the Intendant that the Manifesto should be modified. However this may be, we trust that no Physician or Surgeon will be tempted to "try his fortunes" at Valparaiso—will not, in fact, lend himself to be the upholder of a tyranny and insolence all but unparalleled in our history.

THE ROYAL INSTITUTION.

At the Royal Institution, on Tuesday, January 16, Dr. Rutherford gave a brief sketch of the nutrition of animals, and devoted the remainder of his lecture to the consideration of blood. He showed how the blood pigment may be separated from the stroma of the blood corpuscles in various ways. He exhibited the effects of oxygen, carbonic acid, water, and a saturated solution of sodium sulphate upon the colour of the blood; and demonstrated, by means of the electric light, the spectra of oxidised and reduced hæmoglobin, acid hæmatin, and the carbonic oxide and nitrous acid hæmoglobin compounds. Crystals of hæmoglobin and various kinds of blood corpuscles were shown, and the function of the blood-colouring matter and the effects of nitrous and carbonic oxide and nitrites were dwelt upon. The most delicate test for blood-stains—the guaiacum test—was also exhibited.

PRESENTATION TO A POLICE-SURGEON.

It is gratifying to record that on his retirement from the office of Surgeon to the F Division of Police, the duties of which he fulfilled for many years with great efficiency and satisfaction to all, Dr. Alfred Harvey has been presented with a silver salver. The salver bears the following inscription:—"F Division of Police of the Metropolis, Bow-street.—Only a small token of esteem of our officers and men towards their kind friend, Dr. Alfred Harvey, who never spared himself to help and soothe any of them, often at times when a cheering word was so welcome. Our Divisional Surgeon is leaving us, and the loss is ours; may he be happy wherever he goes. *In memoriam*, James J. Thomson, Superintendent, London. Christmas, 1871." We congratulate Dr. Harvey on this well-merited tribute to his skill and worth.

DUBLIN BIOLOGICAL CLUB.

Under this title a Society, having for its object the investigation of matters connected with histology in all its bearings, has just been inaugurated. The first meeting was held on the evening of Saturday, the 6th inst., at No. 30, Trinity College, Dublin, and was largely attended by the members. The *réunions* are to take place weekly during eight months of the year, and from the character of those which have already been held we anticipate the complete success of the undertaking.

INCREASE OF SALARY TO DR. J. N. VINEN.

At a numerously attended meeting of the St. Olave's District Board of Works, Southwark, held on Tuesday last, an increase of £50 a year in the salary of Dr. J. Northcote Vinen, the Medical Officer of Health, was unanimously voted, in appreciation of the manner in which he has performed the duties of his office for the last sixteen years. This act was rendered the more graceful by its being entirely voluntary on the part of the Board.

HEALTH OF SCARBOROUGH.

It is understood that a Commission will be issued by Government to inquire into the sanitary condition of this town. The

Local Government Board has been induced to take this step in consequence of a memorial addressed to them, signed by three Medical Practitioners of the town, stating that they considered such a step necessary in consequence of the number of cases of zymotic disease prevailing at the present time.

AN OPENING FOR A MEDICAL CORONER.

It is officially announced that the office of Coroner for the upper division of the county of Gloucester has become vacant by the resignation of Mr. Joseph Lovegrove. Here is an opportunity for the freeholders to elect a Medical coroner. We hope it will not be neglected.

FROM ABROAD.—MEDICAL MARRIAGES IN FRANCE—TREATMENT OF FISTULÆ OF THE TESTIS—THE NEW HÔTEL-DIEU.

M. Amédée Latour, in one of his amusing *causeries*, declares that nothing can be more quiet and sedate than Medical Paris at the present time.

"For example, it is marrying plenty of its sons and daughters, for never have we witnessed so many nuptial benedictions. A symptom very interesting to analyse is that not one of these alliances has taken place between the son and daughter of a Doctor. What does this mean? Is it for good or for evil? Willingly disposed to look upon the best possible side of matters, I do not see that we should augur anything ill of the Profession from these hybrid marriages. If the sons of our *confrères* are able to contract alliances with good and rich *bourgeoises* families, it shows that the Profession is not of the slight consideration that it has been said to be. If their daughters are sought for by the wealthy *bourgeoisie* merchants and manufacturers, and by the bar, it shows that their fathers must be enabled to insure them tolerably good dowries, as also that the Profession is not so generally profitless. For the *sans dot* is just as cruel a position at the present time as in the days of Molière; and the poor girls who can add nothing palpable and sounding to their virtues, their youth, and their beauty are more than ever condemned *à coiffer et à recoiffer Sainte Catherine*. Poor girls! how many have I known of you who were truly charming, and who would have made the happiness of a brave man! These intermediate social positions are the most terrible of all. The boys always manage to extricate themselves in one mode or another; but the unfortunate girls, with their education, instruction, tastes, and habits contracted in the family, what are we to do with them, and how are we to marry them? Are there many Doctors who would imitate the courageous example of one of my friends, who, having attained a high administrative position, and finding himself with two daughters to whom he could only give small marriage portions, married one to a grocer and the other to a butcher. My friend was no simpleton, for both marriages turned out excellently, providing most comfortable homes; while an alliance with a so-called liberal Profession would only have led to the liberality of privation, and perhaps to something worse. But go and speak such language as this to our fine young ladies!

"I am told that among the young women who have presented themselves for the examinations for the governess's diploma a considerable number are the daughters of Doctors. This is a good sign; for no direction can be imparted to a young girl more useful, more moral, and more respectable than that of teaching. If they are compelled to make it their profession, none can be more honourable; while, if a more happy destiny awaits them, they may become the teachers of their children, and may save them from the dangers of boarding-schools and convents. Dear *confrères*, whether rich or poor, try to give this hint to your daughters; for who can tell what may happen to any of you? The General Association is now aiding the daughter of an illustrious Professor plunged into distress by a reverse of fortune."

At a recent meeting of the Paris Surgical Society, M. Chassaignac introduced the subject of the "Treatment of Fistulæ of the Testicle and Epididymis," summing up his paper in these words:—

"Whenever, by the long standing of the disease, the exhaustion, suffering, and wasting of the patient, the question of castration for a tumour of the testis comes to be considered, we should always, before resorting to this, employ an exploratory trocar, and, if the instrument exhibit pus, a simple incision should be practised. If an incision alone prove insufficient, we should have recourse to drainage, as removal of the testis ought never be performed on account of mere suppurations, however complicated these may seem at first."

He cannot understand how an operation has become current which, in his hands, has so often been followed by a fatal result. In good Surgery an important organ should never be removed on account of an abscess. M. Demarquay agreed with these views, so far as fistulæ of the testis attended only with suppuration are concerned; but in cases of tubercle of the testis, with its multiple fistulæ, the number of tubes required cannot be borne by the patient, who at last compels the Surgeon to operate—which, indeed, is the best thing he can do. The operation should, however, be limited to cases in which there is tubercular infiltration of the testis and epididymis, and when the disease is reacting on the entire economy. M. Chassaignac replied that a single drainage-tube will suffice in even multiple fistulæ when it passes out by the most dependant part of the scrotum. At all events, the tubes should be tried before resorting to castration. M. Demarquay, however, does not believe that drainage is attended with success in true tubercle of the testis, while castration in ulcerated tubercle is not a dangerous operation. He has never met with a single death from it, while castration for cancer of the testis is a much more serious operation. M. Tillaux, while agreeing with M. Demarquay, believes that castration should be reserved for extreme cases of even tubercular testis, and should be abstained from so long as the patient's strength is good. When, however, an abscess has been opened, and one or more drains have been employed in vain, and the patient's strength fails him, delay of the operation would be a fault. M. Giraldès agreed with M. Chassaignac so far as purulent fistulæ of the testis were concerned; but, in tubercle of the testis, caseous and fatty matters are infiltrated in the substance of the dilated epididimary canals, which, as well as the deposits in the vas deferens, may give rise to multiple purulent centres, formed amidst an altered fibrous tissue, and produce interminable suppuration. In such cases, drainage ceases to suffice; and if the patient has not tubercle of the lungs, we must amputate with the view of preventing the accidents which result from chronic suppurations, inflammations, and the pains which prevent the patients from walking or working. Moreover, castration is not the serious operation it has been represented to be. M. Giraldès has practised it a great number of times, and has never met with a fatal case. M. Léon Le Fort, also, has never known death to occur, in a whole series of castrations performed for tubercular testis. M. Chassaignac, in reply, observed that he had never had occasion to resort to castration in tubercular testis, as drainage, in these cases, had always succeeded in his hands. He does not admit that patients should be allowed to dictate to the Surgeon the performance of an operation, which, indeed, would no longer be demanded if relief by drainage were obtained. A changed condition of the vas deferens in tubercular testis is, in his opinion, a contra-indication to the operation. He also thinks that his opponents should furnish a more complete statistical account of the results of castration.

When the construction of the new Hôtel-Dieu was in contemplation, the Hospital Medical Officers of Paris strenuously exerted themselves in opposition to the monstrous proposition of erecting a vast Hospital capable of containing 800 beds in the midst of the most crowded portion of the capital, the absence of sufficient space preventing its superficial development, and compelling the raising of storey upon storey to an altitude setting all hygienic provisions at defiance. A strong opposition was organised by the Société de Chirurgie and the Société des Hôpitaux, and all the weight of unanimous Professional opinion brought to bear on the authorities, in order to obtain an abandonment or modification of the project. All in vain! Baron Haussmann's view of beautifying the capital

required an imposing building to be erected on this site, and the sentimental ideas of the Emperor hastened on its construction, in order that this palace of the poor might proceed *pari passu* with that sample of extravagance, the New Opera-house. Extravagance, indeed, has prevailed in the construction of both edifices, for it is calculated that the cost of the Hospital will amount at least to forty-two million francs, which, supposing it destined for 800 beds, will bring the annual charge of each bed to the fabulous sum of 2500 francs. There might be some consolation even for this wanton expenditure if a good Hospital might be expected to result from it. But the mere agglomeration of so many patients is fatal to any such expectation, as might indeed have been anticipated from the experience derived from the Lariboisière, where, notwithstanding the space it occupies, and the effective ventilation its mode of construction admits of, the mortality is as high as at the Hôtel-Dieu, now to be destroyed. But, in comparison with the new Hôtel-Dieu, the Lariboisière enjoys many advantages. For 625 beds it has about 52,000 metres superficies, while for 800 the Hôtel-Dieu will have only 21,600 metres. The pavilions of the Lariboisière do not rise above from 20 to 25 metres; while the buildings of the Hôtel-Dieu, four storeys high, reach 35 metres, and are so disposed as to render effective ventilation and illumination impossible.

Encouraged by the recent political changes, the Hospital Surgeons and Physicians have again moved in the matter. It has, indeed, been hoped by some that the authorities may find a new destination for this vast edifice so ill-suited for the sick; but of this there is little probability, and, accordingly, the Paris Hospital Medical Society has appointed a committee to visit the Hospital and report upon its capabilities. This committee comprises the well-known names of MM. Hardy, Broca, Marjolin, Giraldès, Hérard, Lallier, Trélat, Vidal, and Lorrain, and has delivered in its report. This we have not yet seen; but at the meeting held to receive it numerous proposals were suggested. Some proposed to retain the Hospital only for special diseases, such as those of the skin, eyes, etc., excluding fevers and surgical and lying-in cases; others thought that only a portion of the building should be utilised, diminishing the beds by one-half; while the extreme reformers demanded the demolition of a building so unsuited to its objects. However, after these various suggestions had been discussed, the resolution was unanimously carried—"That the Hôtel-Dieu, as it is constructed, does not respond to the conditions required for a Hospital according to the present state of science and hygiene," It remains to be seen whether those in authority have either the power or disposition to listen to the warning voice once more raised.

INSTRUCTIONS TO VACCINATION OFFICERS.

THE following instructions to Vaccination Officers have been issued by the Local Government Board in readiness for the commencement of the operation of the Vaccination Act, 1871:—

1. The duties of a Vaccination Officer, whether already appointed or hereafter appointed by the guardians, will be to act as Registrar of Vaccination for the district to which he is appointed; to see that all children resident therein are duly vaccinated; and, generally, to carry into effect, under direction of the guardians, all such provisions of the Vaccination Acts as are not expressly assigned to the execution of other officers.

2. He will receive from the Registrars of Births and Deaths, and will be responsible for the safe custody of, the "Monthly lists" of births and deaths which will be sent to him under the provisions of the Act of 1871. The first of these lists will be due on February 1, 1872, or within three days thereafter. On the lists of births he will duly enter in columns which are provided for the purpose, as shown in an annexed form, all certificates he may receive of the successful vaccination of the children whose names are entered on the lists, or of their insusceptibility to vaccination, or of their having already had small-pox. All such entries must be made immediately on the receipt of the respective certificates. He will compare each monthly list of deaths with the corresponding and with preceding lists of births, and as regards any children included in the death-return whose names are on the birth-lists, but for whom he had not received one of the certificates above referred to, he will enter the death in the column provided. An alphabetical index to his birth-lists will greatly facilitate this comparison. And when, on his personal inquiries, or by information from the Vaccination Officer of another district, or on other reliable authority, he shall have ascertained that a child included in the birth-lists for his district has died in some other district, he shall write off the case in like way.

3. He will enter at the end of each quarter, on blank "birth-list" sheets (which will be supplied him for the purpose), certificates which he may have received during the quarter of the successful vaccination, or insusceptibility to vaccination, of children whose births had not been registered at all, or whose district of birth-registration he has been unable to ascertain.

4. The monthly lists of births, together with the supplemental sheets referred to in Section 3, shall in the first instance be kept stitched, or otherwise fastened together, in a stiff cover, so as to preserve them from damage or dirt, and shall from time to time be bound into volumes as the guardians may direct, and shall constitute the "Vaccination Register" of the district.

5. If any list of births or deaths be not received from a Registrar within one week from the time it is due, the Vaccination Officer shall report this to the guardians at the next board meeting, with a view to the Registrar being immediately called upon for an explanation, and, if need be, to communication with the Local Government Board. A Vaccination Officer who shall lose any of these lists shall be bound to obtain another from the Registrar of Births and Deaths at his own cost. The steps that the Vaccination Officer will be required to take in discharge of his duty to see that all children entered on the birth-lists are duly vaccinated will vary, according as the vaccination district in which the parent resides is one in which continuous weekly public vaccination is maintained, or one in which the public performance of vaccination is only periodical—I. As regards districts in which there is continuous weekly public vaccination—(*a.*) He will keep his birth-lists examined from week to week, and in each case of default which may arise he will, immediately on such default arising, intimate the fact to the parent. For this purpose a notice in a form annexed, or to the like effect, may be used; and such notice may, if he think fit, be sent by post. He should make a mark √ in the margin of his Vaccination Register in each case in which this intimation of default has been given. If the intimation be not attended to within a reasonable time—say fifteen days—or, if in the case of a notice sent by post, the person to whom it was addressed has not been found by the post-office, the Vaccinating Officer shall at once proceed to make personal inquiries with a view to obtaining the requisite certificate or taking the necessary proceedings. (*b.*) If on these personal inquiries the parent be found in default, an exact date should be specified by which he must have complied with the law; and a notice in a form annexed, or to the like effect, should be given. (*c.*) Failing compliance, the Vaccination Officer (unless he shall have been authorised by any general resolution of the guardians to take legal proceedings without further instructions) will report the case to the guardians at their next board meeting for their instructions thereon. II. As regards districts in which the public vaccination is periodical—(*a.*) He will previous to each vaccination period, examine his birth-lists, and extract therefrom the name of all parents who would fall into default provided their children were not vaccinated before the termination of the next ensuing attendances, in order that intimation to this effect may be given to such parents a few days before the attendances commence, with warning of the penalties which will result from non-compliance. A form annexed, or to the like effect, may be used for this purpose. He should make a mark √ in the margin of his Vaccination Register against each case in which this intimation has been given. (*b.*) And, failing compliance, he will inquire personally into the circumstances of the case, and (unless he shall have been authorised by any general resolution of the guardians to take legal proceedings without further instructions) report the case to the guardians at their next board meeting for their instructions thereon.

6. He will keep a book to be called "The Vaccination Officer's Report-book," according to a form annexed, in which he will enter the names, with the other particulars required, of parents of whom personal inquiries may have been made, as above, with the dates of such inquiries. He will note in his book any further action taken in any case, and make any remarks which the case calls for. He will take care to make the necessary reference in column V of his "Vaccination Register" to each case thus entered in the Report-book.

7. When on his inquiries the Vaccination Officer finds that a child has been successfully vaccinated, but the vaccination not certified, or that any other certificate due, as of postponement, etc., has not been transmitted, he shall ascertain with whom the default rests, having regard to the requirements of the Vaccination Act, 1867, sections 21, 23, 30, and Vaccination Act, 1871, section 7, and shall forthwith take the necessary steps for obtaining the certificate required.

8. All certificates of postponement shall be entered in the Report-Book, with the date of the certificate, the name of the Practitioner who signed it, and the period for which it was given, with a view to any inquiries which may be necessary at the expiration of that period. He will take care to make the necessary reference in column V of his "Vaccination Register" to each case so entered. When certificates of postponement are delivered to him on the form of "Notice of requirement," he will see that the parent is always supplied with a new form of the notice of requirement, with the particulars of attendance, etc., duly filled in.

9. When the Vaccination Officer shall find that any parent, respecting whose child he has not received a certificate of successful vaccination, has removed from the district, he shall take pains to ascertain the Vaccination Officer's district to which such removal has taken place, and shall give notice to the Vaccination Officer of that district, with a view to the vaccination of the child, and a due return of the certificate to himself. And whenever a certificate respecting a child whose birth was registered in the district of some other Vaccination Officer is sent to him, he shall take pains to ascertain the district in which the birth took place, and forward the certificate accordingly.

10. He shall submit to the guardians, in duplicate, at the end of every quarter or half-year, as they may direct, a summary of his Report-Book, in the form to be prescribed by the Local Government Board, the duplicate to be transmitted to the Local Government Board.

11. The Vaccination Officer will at all times use his best endeavours to ascertain whether children resident in his district, but not having been born in it, or (if so born) not having had their births registered in it, are unvaccinated, and will, in such cases, take the requisite steps for procuring their vaccination.

12. He will, on outbreaks of small-pox, make any house-to-house visitations which the Local Government Board or the guardians may direct in

reference to vaccination, and will carry out any special instructions they may issue on the subject.

13. As the guardians' officer for the administration of the Vaccination Acts, he will see that the Registrars of Births and Deaths in his district are kept informed of the arrangements for public vaccination as settled by the contracts, and of all alterations legally made in such arrangements, as well as of his own place of abode, in order that the entries required to be made in these respects by the Registrars on the notices of requirement of vaccination delivered by them to parents may be correct. The best course will be for the guardians to have the particulars of the arrangements, and the name and address of the Vaccination Officer, printed in red ink on the notice forms with which each Registrar is supplied.

14. He will also see that public notifications of the arrangements for public vaccination are duly given; and especially in districts in which public vaccination is periodical, will see that such notices are distributed and placarded through the districts a week or ten days before the commencement of each period.

15. He will, as far as possible, attend the public vaccination stations during vaccinating hours, and report to the Guardians any insufficiency of accommodation at these stations, or any failure of parents to bring for inspection the children on whom vaccination has been performed, or any other matter concerning the business of the station on which the guardians may require his report.

16. He will also undertake the distribution of the certificates, books, and other forms issued by the Local Government Board, to the public vaccinators and Medical Practitioners in his district.

17. The Vaccination Officer will further have to inquire into the circumstances of the cases included in the default-lists under the Act of 1867, which will be presented by the Registrars of Births and Deaths in the first week of January, 1872, as well as into any other cases in previous default-lists under that Act, which remain unaccounted for in the "Registers of Successful Vaccination." In districts in which there is continuous weekly public vaccination, he will forthwith make the personal inquiries into these cases, and follow the further course prescribed above in Section 5. In districts in which the public vaccination is periodical, he will (except when the ordinary period of attendances is at hand, or where the defaults are so few as to render this course unnecessary) submit to the guardians to direct special attendances to be at once given for three or four weeks, with the view of clearing off these past defaults; and he will, in either case, give notice to the parents in default, a few days before the attendances for public vaccination commence, requiring the vaccination to be then done, and will, in all cases in which this notice has been neglected, forthwith make personal inquiries, and (unless he shall have been authorised by any general resolution of the guardians to take legal proceedings without further instructions) report the cases to the guardians for their instructions.

18. He will receive from the Registrars of Births and Deaths of his district, early in January, 1872, and will be responsible for the safe custody of, the "Registers of Successful Vaccinations" which have been kept by those officers under the Acts of 1853 and 1867. The Registers kept under the Act of 1853 may, if the guardians permit, be deposited in the Union offices; but all Registers which contain entries of births subsequent to December 31, 1867, must be retained by the Vaccination Officer. He will duly and forthwith enter in these Registers the certificates which he may receive or obtain of the successful vaccination of children whose births are therein recorded. He will write the word "dead" against the names of any of the children whose births are entered in these Registers, whom he may ascertain, either by the monthly death-lists or by his own inquiries, to have died without having been vaccinated. And he will write, *in pencil*, against the respective names, any information (as of removal from district, certificate of postponement and its date, etc.) which does not finally dispose of the case.

(Signed) JOHN SIMON, Medical Officer.

Issued by direction of the Local Government Board, this 21st day of December, 1871. (Signed) JOHN LAMBERT, Secretary.

REVIEWS.

Notizie Cliniche sulla Difteria. Per CAVINO GULIA, Membro della Società di Medicina practica di Parigi, etc., etc. Malta: Tipografia Anglo-Maltese. 1870.

Clinical Notices of Diphtheria. By CAVINO GULIA, etc., etc. Price 4s. 2d.

THIS short but excellent work on diphtheria comes from the pen of a Maltese Physician, and consists of a reprint of papers which originally appeared in a local journal. It is complete, erudite, and amusing, and shows that the writer is thoroughly well acquainted with the science and practice of Medicine in France and England, as well as in Italy. It is agreeable to see names familiar to us here, equally honoured abroad; and the works of Sir T. Watson, Aitken, Jenner, West, W. Farr, Burdon-Sanderson, Tanner, Greenhow, C. J. B. Williams, W. Squire, Wharton Jones, and the *Medical Times and Gazette*, are constantly referred to by Dr. Gulia.

He begins by defining diphtheria; and as there is some little ambiguity of meaning amongst ourselves on this point, we will quote what he says. By *diphtherite* he understands the pellicular exudation which may be found in various diseases—as, for example, in the course of scarlatina, in croup, in some mercurial sorethroats, and the like. But by *diphtheria* he understands the special "angina cotennosa" properly so called, or exudative inflammation of the throat, which occurs from the poisonous action of a special miasma generated or introduced into the blood. It will thus be seen that *diphtheria* is understood to be a specific disease, of which *diphtherite*, or pellicular exudation, is a symptom; but that pellicular exudation is not confined to diphtheria. We think it a pity that there should have been such confusion in the use of these similar words, but will not add to it by proposing a new name. He goes on to define it as a malady akin to typhoid—a fever, a constitutional disease, highly contagious, and slightly infectious, characterised by septicæmia, sorethroat with exudation, often fatal by asphyxia, or by typhoid paralytic or embolic accidents.

Dr. Gulia believes the disease to have been known from ancient times to the present. He identifies it with a malady described in the sixth Book of Epidemics of "Il Maestro," with the *Syrian angina* of Aretæus, and with various epidemic *anginæ* which ravaged Naples in 1610, and were described by F. Nola; which in the century before ravaged Holland, and was described by Forestus; was intense at Basle in the seventeenth century, in the eighteenth in America, and has had its chief home in the nineteenth century in France. In Malta, it seems to have been excessively fatal in the fifteenth century, and during the last two years has reappeared in an epidemic form. But we have not space to follow him in his *catena* of authorities. He tells us how extremely liable the throat is to suffer whenever the entire system is subjected to debility, derangements, or blood-poisoning. Sorethroat is a symptom in scarlet fever, in small-pox, in other eruptive fevers (amongst which may be reckoned measles and severe lichen), in typhoid and dysentery, in any pyæmic or septicæmic maladies, and in many chronic conditions—as phthisis, scurvy, syphilis, leucocythæmia, intense debility, Bright's disease; also from the influence of poisons—as iodine, mercury, antimony, arsenic, and lead. But no one would argue that similarity of effect in these cases, or even identity of certain symptoms, proves identity of cause; and in throat maladies the whole nature and complexion of each case depends on its cause.

Our author goes on to lament the confusion which has been made of croup with diphtheria by some men of much experience, as Bretonneau, and other men of little or none. He shows that croup is an acute inflammation, diphtheria a blood disease, a primary fever. Croup is a malady of early childhood, rare after the seventh year; it is liable to recur in the same individual; it is not contagious; it is accompanied with dry, harsh, "croupy" cough and hoarseness; usually attended with constipation; is benefited by leeches; is not attended with enlargement of the cervical glands; is caused by cold winds—in all which particulars diphtheria presents the opposite features.

Diphtheria may attack persons of any age; second attacks are not recorded; it is eminently contagious; is attended with loss of voice, or nasal twang, with visible exudation on the tonsils and pharynx; there may be no dyspnœa if it spreads over the velum palati and avoids the larynx; is attended with fetid diarrhœa, and great prostration; depletion and antimony are inadmissible; enlargement of the cervical glands is a frequent and most unfavourable symptom; is complicated by albuminuria; is indifferent to sex, age, and climate; and often comes on at the close of other febrile and septicæmic diseases, as typhoid, scarlatina, and puerperal fever. The spinal paralysis and sudden deaths from embolism which mark a bad epidemic must also be noted.

The diagnosis of the various local and general affections of the throat, and the symptoms and varieties of the disease, are given fully, with constant reference to the writers' names above; but these we pass over to come to the causes. Dr. Gulia discusses the existence of a special morbid poison, in the form of air-wafted sporules, and he is quite familiar with the doctrines of Pasteur and the latest utterances of Tyndall. Anyhow, whilst declaring contagion to be the means of propagation, he believes that sudden check to the action of the skin by cold is the most frequent adjuvant cause. In his experience, the better classes, who live in good houses, are greater victims than the poor. Trousseau, he says, declares that diphtheria has a predilection for low and damp places; but Gulia says that it often passes over such places, and ravages villages that are high, dry, and airy. He thinks that the children of the easy classes are more liable than the poor, because of their more frequent exposure to cold air whilst changing their dress, or because their houses may be over-ventilated and draughty. He declares that there is far more danger from this cause than from privy emanations in ill-ventilated houses, and quotes Greenhow and Gull to show that fæcal miasmata have not been proved to have any relation to diphtheria; in fact, he believes that the *colpo d'aria*, or *coup de vent*—or *wind-stroke*, as we may call it—and damp cold are the gravest predisposing causes. Not only so, but he advances doctrines respecting sewer gases which surprise us. The habitude of living in the poisoned atmosphere of poor houses, he says, often renders the children of the poor exempt from zymotic disease, whilst those who live

in a pure atmosphere fall victims most easily. "In Malta," he says, "typhoid fever is more benign in the case of persons who live in unwholesome houses than in those who live in wholesome ones. This year, out of thirty-two cases of *ileotyphus* treated by me, twenty-six were developed in respectable well-aired houses. . . . . In poor houses I have only seen six cases, five of which were *benignissimi*," one disastrous. "This has often struck me," he goes on to say. "In 1867 I lost from typhoid a most distinguished *signora* that lived in the loftiest house of the Collina Santa Margherita, a distinguished personage in the very healthy Bay of Marsascala, and other persons who lived in the best quarters of Cottonera; but not one of the many cases I saw in the houses of the poor." The experience of Dr. Carpenter at Croydon is probably to the same purport; but he takes account of the various unsuspected paths by which subtle sewer-gas may obtain entrance, whilst Dr. Gulia does not. Malta, he goes on to say, is one of the most crowded spots on the face of the globe, containing 1200 persons to each square mile. The population is for the most part commercial, subject to great fluctuations of fortune, and to the nervous and nutritive disorders which accompany extreme wear and tear of mind. The modern houses are tall, with meagre corridors and courtyards, and the apartments small and ill-ventilated. For the walls they often now employ (unlike wiser ancients) a porous sandstone—"tanto aborrita degli architetti Romani." Bedrooms in such houses are cold and damp, and whoever sleeps in them feels cold all night, and has frequent desire to empty the bladder. The water is stored in cisterns, whose cement impregnates it with lime salts, but does not hinder percolation from the neighbouring sewers. The water is coloured, heavy, stinking, and nauseous, and whoever drinks it is liable to bowel disorder and nervous debility. The kitchen adjoins the other apartments—often contains the pump, the sink, and ill-trapped drain, and this horrible hole ("orribile bolgia") serves as dining-room. In the houses of the poor, a family in each room sleeps, eats, deposits its "immondizie et gli escrementi in una chiavica mal chiusa."

Each house in the Tre Città lodges thirty to fifty persons, without reckoning dogs, cats, poultry, some sheep, and not seldom swine. Here are bred, says Dr. Gulia, the zymotic diseases which the poor are proof against, but which decimate the better classes. Villages that seem to be beautiful as the gardens of the Hesperides are, for want of hygiene, filled with the rickety, scrofulous, and blear-eyed. (He mentions Gozo as an island where the population is virtuous, hardworking, and healthy.) The Maltese redouble their cachexics by breeding in and in, owing to the straitness of their boundaries and want of choice of wives. To add to their miseries, the habit of spirit-drinking has spread wonderfully during the last thirty years, and, with the abuse of tobacco and the prevalence of constitutional syphilis, account for much of the nervous debility and scrofula, and an increasing moral and physical degeneration. Hence, even sthenic inflammations require consideration before the lancet is used; gentle antiphlogistics and diffusive stimulants suffice for the cure. The commoner people, of their own accord and experience, not from Medical teaching, are giving up the habit of being bled in May, although some disciples of Sangrado still keep up the ancient vampyrism. Not that Dr. Gulia is a partizan of the debility school; he divides his brethren into three classes: the hæmophobists, who never bleed; the contrastimulant school, who follow the now discredited doctrines of Tommasini, and bleed always; the moderates, who bleed with caution when necessary—and he belongs to the last. But we must hasten on. These observations on the constitution of the Maltese are intended to oppose the views of some Maltese Physicians who seem still to adhere to the contrastimulant school, and who see in diphtheria nought but a vivid local inflammation, to be treated by depletion. The local and general measures proposed by Dr. Gulia are treated of in the most judicious manner, and with constant reference to the best practice recorded in every Medical book or journal of authority. If Dr. Gulia writes another book, we hope to be allowed to review it.

Medals, Clasps, and Crosses, Military and Naval, in the Collection of J. W. Fleming, F.R.C.S. Ed., Surgeon-Major, late 4th Dragoon Guards. 1870.

Although this work bears in its title-page the words "for private circulation enly," we venture to break the seal of secrecy, and give it due honour in our columns for many and good reasons. First of all, it is a most creditable example of the manner in which many of our brethren, and more especially those who are engaged in the service of the army and navy, despite of their hard routine duties, of the uncertain and fleeting character of their residence, and of the difficulty of carrying about libraries and collections from one military post to another, and of the temptations to frivolous amusements, yet continue to devote their leisure hours to some substantial branch of science, moral or physical. In the next place, although the book is marked "private," the demands of scholars, antiquarians, and historians must ere long compel it to be made public, as the unique authority on the subject it treats of; and, lastly, should anyone desire to get the book at present, we are pretty sure he could not, for it is not in the market, and not likely to be let go out of the hands of private possessors.

It appears, from the text and notes, that the author has succeeded in procuring examples of every kind of medal, cross, and clasp conferred on the military and naval forces. There is an enumeration of all, a description of many; a set of engravings of many of the more remarkable, and a series of annotations referring to little by-passages in military and naval history, which are full of the deepest interest. There is a distinction, by-the-bye, into those medals which are intended for the personal reward and decoration of the actors in various incidents in flood and field, and the medals of a public order, struck in commemoration of the events themselves. Such are the medals beginning with the defeat of the Spanish Armada, 1588. There is also a small appendix of miscellaneous medals. But the main catalogue exhibits the medals, clasps, and crosses granted to individuals or regiments. The army series begins with a gold medal granted by the unfortunate and much-maligned King Charles I. to Sir Robert Welch, an Irish gentleman, for gallantry at the Battle of Edgehill, in 1642. Next comes the first medal struck for the British army, given by Charles I., in 1643, for soldiers engaged in "forlorn hopes." Their names were returned by the commanding officer, and they were then presented with the medal, "which was worn on the breast." Respecting the medal granted for twenty-seven battles, sieges, and other military operations from 1793 to 1814, Dr. Fleming says, "When these medals were authorised, in 1848, *six* survivors of the Peninsular War applied for fifteen clasps each, but only two made good their claims—privates James Talbot, 45th Regiment, and Daniel Lookstadt, of the King's German Legion. The other pensioners received from ten to fourteen clasps each. The cross worn by the Duke of Wellington had nine clasps, being the highest number obtained by any *officer* in the army." The navy series begins with the gold medal given by Queen Elizabeth to distinguished officers serving in the fleet against the Spanish Armada. We have said enough to show the character of Dr. Fleming's catalogue. We think it a matter most creditable to the Medical Profession that a Medical officer should have undertaken such a work. The real reward of life-risking services is honour. "No man," says Sir Charles Napier, in distributing the medals for the Battle of Mecanee, "can walk with one of these medals on his breast without feeling the conscious pride of an intrepid soldier." Such decorations are amongst the most conspicuous and personal marks of honour. May we add that we hope our Medical brethren in the military service may always earn and have their full share. We are well aware of the difficult, delicate, and perplexing nature of the *status* of Medical officers of the army and navy. They are *in* the army, but not *of* it in the same sense in which the combatant officers are. Although exposed to equal (or greater) risk, both from their share in the general movements of the army and from their own special duties, yet the question arises, Shall they be considered as soldiers with Medical duties, having the peculiar *caste*, discipline, rank, and authority of soldiers, only modified so far as need be by their Medical duties? or shall they rank as civilians attached to an army—as Medical men whose *clientèle* happens to be a movable body of armed men, instead of the stationary population of a town? Of late years an opinion has prevailed that they should fall back on the civilian type; but we have good reasons for knowing that some of the most distinguished military Medical officers, who have been spectators or actors in the late Franco-German war, have had their opinions on this point quite reversed, and now see the necessity of securing a military status with *real* rank and title instead of "relative" rank, which is a metaphysical shadow. We all know how this was felt by brave old Guthrie, and must conclude by wishing the Medical officers of both services a full realisation of Dr. Fleming's motto:

"—— In this glorious and well-foughten field
We kept together in our chivalry."

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

January 16.

At the annual meeting of the Liverpool Medical Institution, held on the 9th inst., Dr. John Cameron, Physician to the Southern Hospital, was elected President in room of Mr. Bickersteth, whose term of office had expired. At no previous period of its history has the Institution been so flourishing, both in respect of the number of its members and the character and amount of work done by it. The former amounts to 140; and to give an opportunity for the reception of papers which would otherwise have had to be deferred, the period during which meetings were held was last year extended one month, and now, therefore, embraces the time between October 1 and May 1. The Microscopical Section, established two years since, has become an important feature of the Institution, and is doing a great deal of useful work, a number of specimens being exhibited at each of its meetings illustrative of the minute pathology of cases which have come under the exhibitors' own observation. The Northern Medical Society—a sister institution, established three years ago, more especially for the benefit of gentlemen living in the northern district and suburbs, and having the same aims and objects as the older Society—is also in a vigorous condition.

The results, so far as they are at present published, of the simultaneous collections made on last Sunday for the Medical charities, has more than answered expectations. The entire amount that will be obtained cannot be known for some time, as some of the collections are unavoidably postponed until next Sunday, and as special contributions to the fund by working men will be made on Saturday next through the medium of boxes left at all the large establishments for the employment of labour. The sum advertised to have been collected as yet is over £5300, being nearly £500 in excess of the entire amount obtained last year; so that it is confidently believed that the aggregate returns will be not much less than £7000.

The interest thus manifested in the prosperity of our Medical charities exceeds, it would seem, that of those on whom their government ultimately rests—viz., the trustees; for at the annual meeting of the trustees of the Royal Infirmary, the important alteration in the law relating to term of service, which was noticed in your last issue, was actually made by fifteen voters, with only five dissentients. It thus appears that so little interest is manifested by the subscribers concerning the internal affairs, at least, of this institution, towards the maintenance of which they contribute, that a change of law, practically amounting to the extension of the term of service of two of the present honorary staff by fifteen years, could be, and actually was, made with only twenty trustees present. Considerable dissatisfaction is now being expressed at the change in question; though it really does not appear that those who indulge in it have anyone to blame but themselves, as the motion which resulted in the alteration was brought forward pursuant to notice given in strict accordance with the laws of the Institution, and it would have been easy for any number of dissentients to have been present to oppose it if they had felt so disposed.

Owing, probably, to the exceedingly mild weather, the mortality of the town continues exceptionally low.

GENERAL CORRESPONDENCE.

THE MEDICAL PROFESSION IN VALPARAISO.

LETTER FROM MR. J. W. DUFFY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Being aware that orders have been forwarded to certain parties in England, for them to try and persuade young men of the Medical Profession to come to Chili, you will be conferring a great benefit to those so inclined by putting them on their guard against entering into any engagements binding themselves to serve in any form or capacity which may be proposed to them by agents of the Chili Government.

By this mail I have forwarded a letter to the editor of the daily *Times*, requesting him to publish it. It will give the public a full statement of the condition of the Medical Profession in this country; and although it was in a sufficiently degraded state before, the Governor of Valparaiso has issued a decree which has placed the members of the Profession in a state of slavery not possible to be borne; the consequence has been, *the Doctors are all on strike*, and have been so for more than ten days. We should have bettered our condition had it not been for two of ourselves, who, seeing what a rich harvest could be made by their practice when all the rest of us should retire, allowed their cupidity to get the better of the feelings of what was due to themselves, to their colleagues, and to their Profession, and resolved to take advantage of the situation.

The shortness of the time before the departure of the mail prevents me from going into particulars, which are explained in my letter to the *Times*. Please beg of your readers to pay attention to it should it appear in that paper, which I trust it will, as my object is to advise most earnestly Medical men not to allow themselves to enter into any engagements with the agents of the Chili Government.

The decree of the Governor of Valparaiso, which has caused the Doctors, with the exception of two, to abandon the practice of their Profession—in other words, *to strike*—among other oppressive articles contains the following:—

The Doctors are obliged to attend *all* the poor of a town containing 80,000 inhabitants *for nothing*. Every Doctor must visit every person, rich or poor, at any hour of the day or night he may be called upon; should he refuse, the person seeking his assistance may call a policeman to compel him; should the Doctor still refuse, he will have to pay a fine of 25 dollars (£4 13s. 9d.); should he repeat his offence, the fine will be 50 dollars, with suspension from practice for six months. Every Doctor must give part of his time to attend every day at a dispensary *for nothing*. He must perform any service (post-mortem, for example) the authorities may require of him *for nothing*. The Doctors must meet twice a year, or at any other time the authorities may order them, to discuss questions, and answer all questions put to them, *for nothing*. The names and residence of the Doctors must be kept registered in a book kept by the Governor. Any Doctor wishing to leave the town for a short period must obtain permission in writing from the Governor. Only fancy a Medical man practising in London being obliged to obtain in writing a permission from the Lord Mayor to accompany for a few days his family into the country!

The Corporation of the town has just voted a large sum of the public money for the purpose of sending to England for Doctors, who are to be bound by agreement for four or five years to obey all the above rules, and to replace the rebellious ones now on strike. I am, &c., J. W. DUFFY,

Member of the Royal College of Surgeons, London;
Licentiate of the University of St. Andrews, Scotland.

Valparaiso, December 1, 1871.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, JANUARY 2.

Mr. HILTON, F.R.C.S., President, in the Chair.

ANNUAL MEETING.

MR. HULKE read the report of the Council on the condition of the Society, which was considered favourable in every way.

Mr. COOPER FORSTER moved, and Mr. RENDLE seconded, the adoption of the report. This was carried unanimously.

Mr. SIBLEY exhibited, for Dr. Bakewell, of Trinidad, some Photographs of Patients suffering from Leprosy. The chief was one of an old negro, both of whose legs were affected, the right leg and foot being nodose, the left foot ulcerated.

Dr. GALTON could hardly accept the theory of causation advanced by Dr. Bakewell—viz., exposure to cold—as the disease occurs frequently in the scrotum, which is ordinarily protected. Bandaging was the best method of cure applicable to the lower extremities. In reply to Mr. Hulke, who asked if the lymphatics were enlarged in the scrotal cases, the speaker stated that the only structural change he noticed was increase in the amount of the areolar tissue.

Dr. KELLY showed, for Mr. Bradley, of Manchester, a portion of the Throat of a Man who had suffered from Syphilis. He was a prisoner in the gaol, and complained of difficult deglutition. After death, it was found that the soft palate was com-

pletely adherent to the posterior wall of the pharynx. The curtain consisted of cicatricial tissue. There was no epiglottis.

The PRESIDENT referred to the case of a patient in his charge who came in hardly able to breathe or swallow. A membrane was seen at the back of the mouth, occluding the passage, and apparently without an opening. Tracheotomy was first of all performed, and the patient was for a time fed per rectum. After a time a small opening was found in the enrtain, and by frequent small incisions they were ultimately enabled to enlarge it, and the patient has since remained pretty well, but with a tube in the trachea. He considered it of great importance in such cases to open the trachea before doing anything else.

Mr. HULKE exhibited, for Mr. Hickman, a Small Body, said to be a green pea, removed from the Lachrymal Canal. The patient, a young lady, had a swelling in the corner of her eye, near which were two openings yielding pus. There was no interference with the flow of tears. The swelling was opened, and a small body like a green pea escaped. This was supposed to be a pea, which had made its way up the nasal duct, and so iuto the lachrymal eanal. For his own part, Mr. Hulke doubted that the body was a pea. (Referred to Dr. Bristowe.)

Dr. GALTON exhibited a specimen of Bowel Perforated by Typhoid, one of the ulcers being situate in a diverticulum from the ileum. The patient was a boy who had not presented any marked indications of illness. Perforation suddenly occurred, and he died forty-seven hours after. The treatment was mainly expectant.

Dr. ALLBUTT remarked that not only might perforation occur with very mild symptoms of fever, but that itself might give rise to no marked indieations. In two eases to which he referred, pain, etc., did not occur for two days after the occurrence of perforation. In one, death did not follow at all. There might be extensive peritonitis without very marked symptoms.

Dr. WILKS confirmed what had been said by Dr. Allbutt. He was inclined to think that powerfully marked symptoms were the exception after perforation in typhoid. Spots occurred in about 80 per cent. of the cases. As to duration, the fever constantly lasted more than three weeks, and not unfrequently more than five.

Dr. KELLY exhibited a specimen of Ulcer of the Bronchus. The patient eame complaining of slight hæmorrhage from the lung. He was sent up into the wards, were he died suddenly, before he could be fully examined. He had suffered from syphilis. There was an ulcer over his vocal eords, and another in the right bronchus. The latter was very large, and had eaten into a vessel—a branch of the pulmonary—the inner coats of which seemed as if they had cracked and given way. There were nodules in the liver, and the testicles were diseased. The ulcer was probably, therefore, syphilitic.

Dr. CLIFFORD ALLBUTT exhibited some Sections of Spinal Cord from a case of Hydrophobia. They presented evidences of congestion and transudation. There was softening of the medulla, perhaps due to serous infiltration. There was a hæmorrhage about the roots of the eighth pair of nerves. The spleen was enlarged. The clinical and pathological facts seemed thus to go together. Dr. Bastian had pointed out something of the same kind. It was a question how far the tetanic movements might not have given rise to these appearances.

Dr. CRISP thought these indications would not be special to hydrophobia.

Mr. HULKE said that in the treatise of Billroth and Pitha dilatation of the vessels was spoken of. In a case under the care of the late Dr. Todd, as far as could be made out, the vessels were dilated. He asked what the condition of the kidneys was in Dr. Allbutt's cases. In that case the urine was like porter, and the kidneys intensely congested. So, also, in another case in Charing-cross Hospital.

In reply, Dr. ALLBUTT stated that the kidneys were not examined by himself. The spinal appearances resembled those of tetanus, but were less intense in degree.

Dr. ALLBUTT next proceeded to show some specimens of Syphilitic Disease of the Encephalic Arteries. The patient had general syphilis, and died of it. He had made some sections of the brain and its vessels. The vessels seemed thickened, or, rather, their perivascular walls seemed filled with gummy matter. Several were thus united together into a mass. The appearances were something like those in general paresis.

The following office-bearers for the ensuing session were next elected, and a vote of thanks given to the President:—*President:* John Hilton, F.R.S. *Vice-Presidents:* Edwards Crisp, M.D.; *William Howship Dickinson, M.D.; Richard Quain, M.D., F.R.S.; Samuel Wilks, M.D., F.R.S.; John Cooper Forster; John Gay; *Jonathan Hutchinson; *John Wood, F.R.S. *Treasurer:* Charles Murchison, M.D., F.R.S. *Honorary Secretaries:* *William Cayley, M.D. John Whitaker Hulke, F.R.S. *Council:* William H. Broadbent, M.D.; William Cholmeley, M.D.; William Selby Church, M.D.; *John Langdon H. Down, M.D.; *Alfred Baynard Duffin, M.D.; Charles Hilton Fagge, M.D.; Thomas H. Green, M.D.; *J. Hughlings-Jackson, M.D.; Robert Martin, M.D.; *Charles R. Nicoll, M.D.; *Frederick William Pavy, M.D., F.R.S.; Frederick Robinson, M.D.; *Henry Arnott; Thomas J. Ashton; John Couper; John Croft; *E. Dennis Hacon; *Arthur B. R. Myers; William Potts; William Squire. The gentlemen whose names are marked with an asterisk (*) were not on the Council or did not hold the same office during the preceding year.

Mr. FAIRLIE CLARKE next proposed a vote of thanks to the retiring office-bearers, which Mr. SIBLEY seconded.

Mr. CROFT proposed a special vote of thanks to Dr. Dickinson on retiring from the duties of Medical Secretary.

Mr. ARNOTT seconded the motion, and Mr. HULKE said a few words in acknowledgment, Dr. Dickinson being absent.

This concluded the proceedings, and the Society adjourned.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 12.

Dr. W. W. GULL, F.R.S., President, in the Chair.

ANNUAL MEETING.

THE President having taken the chair, and the minutes of the last meeting read, the report of the Council was brought forward. They were able to report an increase in their members, and an increase in the ordinary attendance at the Society. The finances were also good—a balance of £249 3s. remaining in the hands of the Treasurer. It was recommended that £200 of this sum should be invested in Consols for the behoof of the Society.

The Treasurer's report was then read, whereupon—

Dr. GLOVER moved, and Dr. POLLOCK seconded, the adoption of the Council's report; and

Dr. POWELL moved, and Dr. SYMES THOMPSON seconded, the investment of the £200 as recommended.

Both motions were agreed to.

Mr. BRUDENELL CARTER moved, and Dr. ALTHAUS seconded, a vote of thanks to the retiring members of the Council, which being carried, the ordinary work of the Society was commenced.

Mr. BRUDENELL CARTER brought before the Society a woman who had been cured of Extreme Convergent Strabismus of the Left Eye, due to paralysis of the external rectus, with secondary contraction and shortening of its antagonist by iodide of potassium, tenotomy, and localised faradisation with the primary current. The patient was 33 years of age, apparently in good health, with no history of syphilis or of any disorder of the nervous centres. She applied at St. George's Hospital on May 16, 1870. The left eye was then so much rolled inwards that only the outer third of the cornea was visible, and was almost immovable in this position. The patient had been in the same condition for more than five months, and she ascribed her malady to some rough usage from her husband. She was ordered to take thirty grains of iodide of potassium daily, and this was continued for nine weeks; at first with very slight benefit, which reached its limit at the end of three weeks. On July 19 the tendon of the left internal rectus was divided, and localised faradisation with the primary current of a Stöhrer's battery was afterwards regularly applied to the external rectus twice or three times a week, by a pair of small rheophores designed for the purpose and exhibited to the Society. Under this treatment the muscle gained sufficient strength to roll the eye to the middle of the palpebral opening when the other eye was closed. On November 22, no further progress having been made, both internal recti tendons were divided, with the result of completing the cure. The eyes were movable to the normal extent in all directions, and retained their parallelism in all positions, no trace of any squint remaining. Mr. Carter said that he had been led to devise this method of treatment in consequence of the very imperfect results obtained from operations for shortening or readjustment of the paralysed muscle.

Dr. OGLE remarked on the extreme rarity of finding paralysis of the nerve to the external rectus muscle alone, the other motor nerves of the eye remaining intact. As to the pathology

of Mr. Carter's case, he (Dr. Ogle) suggested that, as the woman had been suckling (as she informed him) when the eye became affected, might it not be owing to nervous exhaustion consequent on this—the abducent nerve becoming specially affected by reason of the greater communication which exists between the sympathetic nerve and this cerebral nerve in the cavernous sinus. He alluded to cases of internal strabismus sometimes noticed in cases of irritation of the digestive organs. To such Sir C. Bell among others has specially alluded. It seemed very clear that the case was not one of lesion of the central nervous system.

Mr. George Eastes said he had seen Mr. Bader in such cases cut out a bit of the affected muscle.

Mr. Holthouse asked what would be the good of shortening a paralysed muscle. He thought that in this case the operation might not have been required had strengthening and specific remedies been persevered in.

Mr. Gant thought the appearance of the patient good. What operation was performed?

Mr. George Lawson said syphilis was a very common cause of paralysis of the muscles of the orbit, but often the sixth was affected from other causes due to its intimate connexion with the sympathetic.

The President said here the physical diagnosis was exact, but he would like to know the ultimate cause of the squint. If it was due to affection of the sympathetic, the patient might have recovered without operation.

Dr. Althaus said such a paralysis often arose from syphilis, but he thought that sometimes it came from cold alone. He considered Mr. Carter's plan the best for dealing with them. He had tried faradisation himself, and sometimes it did very well, and sometimes not. The application of the current directly to the conjunctiva was objectionable, so he directed it through the eyelids. A change to the constant current might be useful.

Dr. Glover asked if hypodermic strychnine would have been of any use.

Mr. Carter, in reply, said that he had been unable to discover any cause for the paralysis, which had existed for five months when he first saw the patient, and he could find no indications for any special Medical treatment. In his experience paralysis of the external rectus was more often non-syphilitic than paralysis of any other ocular muscle; but he, nevertheless, gave iodide of potassium experimentally, and continued it for a considerable time. The cutting out of the centre of a paralysed muscle had no tendency to cure paralysis, and the operation ascribed to Mr. Bader by one speaker could only produce very imperfect results, with troublesome double vision. In applying the rheophores to the conjunctiva over the paralysed muscle, he was carrying out the general precepts of Duchenne with regard to localised faradisation, and he should fear that the intervention of the eyelids might prevent the current from reaching the part where it was most required. He had no experience of the use of strychnia in such cases; but he could not conceive that any treatment would have been of much avail until after the first tenotomy, by which the weak muscle was relieved from the preponderating force of its antagenist. His operations were subconjunctival, with a fine hook and fine sharp-pointed scissors, so as to divide the tendon with the smallest possible disturbance of neighbouring tissues. He thanked the Society for the manner in which his case had been received.

Dr. John W. Ogle read a paper on the "Temperature in certain Affections of the Nervous System, and especially in Tetanus." Dr. Ogle first alluded to a case of traumatic tetanus which he had described to the Clinical Society the previous session (which had recovered under the use of chloral, belladonna, wine, ice to the spine, etc.), and which had exhibited tolerably regular or periodic daily variations of a remarkable kind in the heat of the body—variations not corresponding by any means with pyrexia, with any rise in the frequency of respiration or of the pulse, and having no apparent relation to the food taken, the degree of sweating, or the amount or force of muscular spasm. He then described other cases of tetanus in which the evening temperature had been found to be remarkably high compared with that of the morning. Of these, one was a case which he had received from Dr. Keen, of Philadelphia, in which, out of fifteen days that the temperature was taken, there were nine in which the evening temperature was much higher than that of the morning, being in several instances more than 1½° and in some cases 2° higher; the pulse being the while often as low as 60 per minute. A second case was one sent to him by Mr. Dixon, of Preston, in which, during six days that the temperature was taken, there was a great evening increase of temperature over that of the morning, being on one occasion nearly 3° higher. A third case was one recently published by Mr. Poland; and a fourth one published by Mr. Croft in the *Lancet* for November 4 last. Dr. Ogle did not consider that the great nightly exaltation of temperature was attributable to remedial agents used, through he recognised the fact that certain agents notably affected temperature, and quoted numerous instances in which it had been demonstrated experimentally both on man and animals, that temperature could be both increased and diminished, instancing (and giving authorities) the decrease of temperature from chloral, bromide of potassium, quinine, digitalis, alcohol, mercury, lead, etc., and quoting experiments in which nicotine, curare, strychnia, vomica, veratria, quinine, and phosphorus were injected into the veins of animals. Examination of the results of such experiments and trials showed very great diversity and discrepancy, and Dr. Ogle suggested that research into the action of agents (both in health and disease) in modifying temperature might well and fitly be undertaken by the Clinical Society, and would prove a field worthy in every way of their cultivation. He alluded to observations which his friend Dr. Fox, of Clifton, was engaged in on this subject. Referring to the modifications of temperature of tetanus, and to the possibility of the existence of variations in these modifications, according to the character and nature of the tetanic attack, Dr. Ogle remarked that it would be a question whether such variations have any relation to vascular changes in the spinal cord, or to such textural changes in the central nervous system as have been observed in certain fatal cases of this disease by Rokitansky, Wedl, Wagner, Demme, Fleckner, Eisenmann, Oppolzer, Wunderlich, and more recently Clarke and Dickinson. Dr. Ogle said that he thought it was a matter of consideration how far such histological changes were due to vascular congestions or to increased blood-temperature induced in the course of the disease. In connexion with the high temperature of tetanus, he alluded to the views which had lately been promulgated, especially in Germany, as to the condition termed fever—a condition which was supposed to result from an unwonted state of the central nervous system, by Wunderlich, Virchow, and many others. He specially drew attention to the researches of Tscheschichin, who looked on fever as the result of a morbidly increased activity of the spinal centres in consequence of a weakening or paralysis of the moderating portions of the brain, by which a number of chemical processes are increased to an extent which is never attained under normal conditions of the functions of the brain. He observed that, whatever part the central portions of the nervous system may play in the increase of temperature in disease, we must of course allow that the vasal nerves, as well those which contract the vessels as those which actively dilate them (if such there be), are intimately concerned, and that an arrest of the natural loss of heat by radiation may lead, by causing its accumulation, to an increase of general temperature as much as an actually and positively increased production of heat. Dr. Ogle then alluded to other cases ordinarily looked on as non-pyrexial, in which the evening temperature was very much higher than that of the morning; for example, those of diabetes, published by Dr. Foster, of Birmingham. (The examination of temperature in cases of diabetes by himself had given different results.) It was to be remembered that in many cases of diabetes the central nerve-structures were at fault. He alluded to cases of meningitis in which the exceedingly high temperature was noted; one noticed by Dr. Bradbury, of Cambridge; also to cases of general paralysis of the insane, for which he was indebted to Dr. Mickle, of the Derby Asylum; and finally to a probably exceptional case of chorea which he had lately treated, and in which the temperature for twenty-one days was noted morning and evening, the latter being almost always much higher than the former. Dr. Ogle referred to the great importance which the thermometer, as supplying a measure of expenditure of nerve-force and tissue-waste, was assuming in our clinical wards, thus competing with the stethoscope, microscope, and test-tube. He hoped shortly to have the opportunity of offering to the Society some remarks on the temperature of the body in paralysis.

Mr. Croft said he had verified the temperature of 106° Fahr.

Mr. Butt had noticed an evening elevation in leukæmia.

Dr. Cholmeley said that in two fatal cases of tetanus in the Great Northern Hospital there had been a slight degree of elevation in the evening—before death both patients suddenly increased in temperature.

Dr. Althaus remarked that in some of Dr. Weber's cases of

injury to the cord there had been an extraordinary increase of temperature.

Dr. BARCLAY asked if there was any relation between spasm and temperature. He thought temperature was being used too hurriedly as a guide to practice.

Dr. WEBER had some years ago carefully studied the temperature in a case of tetanus. The remedies did not seem to affect its rise or fall. Spasm, too, would occur during the night as during the day, and then failed to produce any influence on the temperature; if any, it lowered it.

Mr. GANT thought the general condition of the system after injury was too much overlooked in considering temperatures.

Mr. CROFT said muscle was often to a great extent ruptured in tetanus; might not this have something to do with increase of evening temperature?

Dr. WILTSHIRE thought chloral sometimes reduced temperature a good deal.

Dr. POORE, referring to a case of uræmic convulsions, said that in it the temperature rose during the convulsions and fell afterwards.

Mr. T. SMITH asked if temperature did not as a rule always rise at night.

The PRESIDENT thought so. He, too, agreed with Dr. Barclay that they were too recklessly applying this kind of knowledge to practice.

Dr. OGLE, in replying, observed, in reference to observations made during discussion on the temperature in leukæmia, that he had lately tried it in one case of leukæmia, but failed to find any positive modification. Dr. Goodhart had found a rise of evening temperature in one case. He also, in reference to the influence which late observations had shown to be exercised by the spinal cord on temperature, alluded to the well-known case published by Sir B. Brodie of laceration of the spinal cord and dislocation of cervical vertebræ, in which the temperature rose to 111°, and so remained even after death.(a) The highest temperature Dr. Ogle had registered had been 111°, and that was in a case of rheumatic fever with cerebral complications. Wunderlich had found it in a case of tetanus as high as 112·5°. In reply to the suggestion that the evening temperature in a state of health was always higher than in the morning, Dr. Ogle believed that if the temperature was taken at 9 or 10 a.m. and again at 10 p.m. this would be found not to be the case.

The PRESIDENT referred to a case in Guy's Hospital where the patient had had his neck broken at the fifth cervical. In that case the temperature was over 109° Fahr. on the exposed abdomen.

The following officers for the ensuing year were declared elected:—*President:* William W. Gull, M.D., F.R.S. *Vice-Presidents:* Thomas King Chambers, M.D.; G. Owen Rees, M.D., F.R.S.; J. Burdon-Sanderson, M.D., F.R.S.; *Alexander P. Stewart, M.D.; *Geo. W. Callender, F.R.S.; *J. Cooper Forster; Henry Lee; Campbell De Morgan, F.R.S. *Treasurer:* E. Headlam Greenhow, M.D., F.R.S. *Council:* *James Andrew, M.D.; William H. Broadbent, M.D.; William Cholmeley, M.D.; *Edward Clapton, M.D.; John Langdon H. Down, M.D.; *Alfred B. Duffin, M.D.; *J. Hughlings-Jackson, M.D.; *John C. Langmore, M.B.; Alfred Meadows, M.D.; Sydney Ringer, M.D.; Samuel Wilks, M.D., F.R.S.; *Henry Arnott; *Richard Barwell; *Thomas Bryant; John Croft; Berkeley Hill; Carsten Holthouse; William B. Kesteven; Septimus W. Sibley; *Alfred Willett. *Honorary Secretaries:* Thomas Bazzard, M.D.; George Lawson. *Trustees:* *E. Headlam Greenhow, M.D., F.R.S.; *J. Burdon-Sanderson, M.D., F.R.S.; *George W. Callender, F.R.S. The gentlemen whose names are marked with an asterisk (*) did not hold the same office during the preceding year.

OBITUARY.

JAMES BAKER, M.D.

WITH him the Profession has lost a faithful follower—one of the few remaining pupils of Abernethy. The parish of St. Leonard's, Shoreditch, has lost one of its oldest and most respected inhabitants. Born in the year 1800, after studying at St. Bartholomew's with Messrs. Skey, Wormald, and Mr. Coates, of 201, Euston-road, he qualified in 1826, and settled in his native parish, where he continued to practise upwards of forty-five years. Here he soon acquired a good share of Professional work and public trust. He was many years a deacon of Whitfield's Tabernacle, vestryman of the parish, and two years churchwarden, for which latter services, in 1864, the vicar, the Rev. T. S. Evans, presented him with the Book of Common Prayer, handsomely bound in morocco and gold. The vestrymen at a public meeting unanimously presented him with a vote of thanks engrossed on vellum, framed and glazed; and in the following year his fellow-parishioners and friends, at a dinner at the London Tavern, presented him with a valuable service of plate. But Dr. Baker was best known to the Medical Profession, especially of the past generation, by the active part he took in securing the passing of the Medical Witnesses Act—being, in fact, the sole author of it; for in 1834, being unable to obtain any fee for twice giving evidence, making analysis, and post-mortem, he ventilated the subject of remunerating Medical witnesses, and finding the whole Profession was with him, he got up a petition, known as Mr. James Baker's petition, bearing the signatures of over 800 Medical men, and containing the names of the Presidents of the Royal Colleges of Physicians and Surgeons of England, and all the eminent Physicians and Surgeons of the period. He carried his petition to Westminster, Messrs. Whittle, Harvey, and Wilks having kindly promised to present and support it; but the late Mr. Wakley took charge instead, and presented it the following day, at the same time asking leave to bring in a Bill, which he did. The Bill was passed, and is known as the Medical Witnesses' Remuneration Act. For the trouble taken and expense incurred Dr. Baker received the first fees after the passing of the Act from many Practitioners, and letters of thanks from numbers of others. Dr. Baker died on Christmas-day, 1871, at Tottenham, in the 72nd year of his age, beloved by all who knew him. He has left a faithful, fond wife; not having been blessed with any family of his own, he took care of others'.

(a) See Medico-Chirurgical *Transactions*, vol. xx., 1836.

MARTINDALE WARD, L.R.C.P.E., F.R.C.S. Exo.

DIED, on the 12th inst., at the residence of his eldest son, Saltburn, Twickenham-common, aged 52. The deceased's residence was in Markham-square, Chelsea. He was Surgeon-Major South Middlesex Volunteers, and for upwards of twenty-one years Assistant-Surgeon Royal Military Asylum, Chelsea, Medical Officer and Public Vaccinator North-west District, Chelsea, and for thirty years actively engaged in parochial matters in the parish of Chelsea. He was much respected.

HENRY CHARLES ROBINSON, M.R.C.S.E., L.S.A.,

SON of Captain Bethel Martin Robinson, was born at Parkhurst Barracks, Newport, Isle of Wight, in 1807. After pursuing his studies at Guy's and St. Bartholomew's, he commenced his career in 1829, and had an extensive private practice, and subsequently devoted thirty years of his life to the care of the poor—sixteen years as District Surgeon and Senior Medical Officer to St. Pancras; and nearly fourteen years as Senior Medical Officer to Mile-end Old Town. He died January 8, and leaves eight children, who deeply mourn his loss.

ROBERT WADE, F.R.C.S.

WE regret to have to announce the death of Mr. R. Wade, which took place on the 16th inst. Mr. Wade was the Senior Surgeon to the Westminster General Dispensary, and practised in Dean-street, Soho. He was the author of works on "Stricture" and on "Conservative Surgery of the Urethra," which went through several editions. He also contributed papers to the Medico-Chirurgical *Transactions*, and to the Medical periodicals. He was elected an Honorary Fellow of the Royal College of Surgeons in 1844.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations, held on January 8, 10, and 11, the following received the Licence to practise Medicine:—

Murphy, William Reid.
Hamilton, Stewart.
M'Guire, Edward.
Mulvany, Edward.
Roche, Anthony.

The successful candidates for the Diploma in Midwifery were:

Marshall, John.
M'Guire, Edward.
Mulvany, Edward.
Murphy, William Reid.
Prendergast, John.
Roche, Anthony.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 16th inst., and, when eligible, will be admitted to the Pass Examination :—

Alford, Frederick S., student of University College.
Brodribb, C. Aikin, of St. Mary's Hospital.
Coote, Michael, M.D. Univ. Laval, Quebec, Canada, of St. Thomas's Hospital.
Cossham, W. Raymond, of the Bristol School.
Dobson, Joseph, of the Leeds School.
Drew, Clifford L., of the London Hospital.
Essex, J. Rowlands, of the Bristol School.
Hamilton, A. M. S., of the Belfast School.
Hartley, E. Baron, of St. George's Hospital.
Herapath, C. K. C., of the Bristol School.
Hills, T. Hyde, of St. George's Hospital.
Hynes, A. Mortimer, of the Manchester School.
Jewesbury, Charles F., of University College.
Keyworth, George H., of Guy's Hospital.
Lawrence, George E., of University College.
Morris, George, of the Manchester School.
Sargent, George, M.A. Cantab., of St. Bartholomew's Hospital.
Tyson, William, of the Leeds School.
Wallace, Thomas, of the Belfast School.
Ward, L. Brereton, of St. George's Hospital.
Webb, Charles L., of Guy's Hospital.
Williams, Alfred H., of St. Thomas's Hospital.
Winkworth, F. Sydney, of University College.

The following gentlemen passed on the 17th inst., viz. :—

Bowen, Edward, student of Guy's Hospital.
Buck, William E., B.A. Cantab., of St. Bartholomew's Hospital.
Carey, John Thomas, of Guy's Hospital.
Collins, Henry A., of Guy's Hospital.
Dove, Harry, of St. Bartholomew's Hospital.
French, A. Martin, of Guy's Hospital.
Gibb, Robert Charles, of Guy's Hospital.
Lewis, Ivor A., of Guy's Hospital.
Leonard, John, of Guy's and Charing-cross Hospitals.
Lloyd, John D., of the Bristol School.
McMonagle, Joseph, M.D. New York, of St. Thomas's Hospital.
Owen, William, of St. Bartholomew's Hospital.
Penny, George T., of St. Bartholomew's Hospital.
Robey, Ralph P., of the Birmingham School.
Seward, William J., of University College.
Strickland, H. G. T., of King's College.
Talbot, Russell M., of Guy's Hospital.
Taylor, A. Norton, of Guy's Hospital.
Tucker, R. Goldsworthy, of St. Bartholomew's Hospital.
Webb, Edward R., of St. George's Hospital.
West, Rowland Hill, B.A. Cantab., of St. Thomas's Hospital.
Wigan, George, of Guy's Hospital.
Williams, Richard, of St. Bartholomew's Hospital.

The following gentlemen passed on the 18th inst., viz. :—

Black, Robert F., student of St. Bartholomew's Hospital.
Dry, Robert B., of Guy's Hospital.
Johnstone, Charles R., of St. Mary's Hospital.
Morris, Edward J., of St. Bartholomew's Hospital.
Pletts, J. Menham, of St. Bartholomew's Hospital.
Sewell, William, of St. George's Hospital.
Smith, T. W. T., of the London Hospital.
Spear, John, of St. Bartholomew's Hospital.

Thirty-four candidates out of the eighty-eight examined, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 11 :—

Salmon, Alfred Lidgey, Truro, Cornwall.
Sylvester, Kirwan Francis, Trowbridge, Wilts.

As an Assistant in Compounding and Dispensing Medicines :

Houghton, Robert William, Waite-street, Old Kent-road, S.E.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any now Appointments that take place.

BANKART, Jas., M.B.—Surgeon to the West of England Eye Infirmary, Exeter, *vice* P. C. De la Garde, deceased.

CARTWRIGHT, S. HAMILTON, M.R.C.S.—Lecturer on Dental Surgery and Pathology at the Dental Hospital of London, *vice* Mr. Samuel Cartwright, resigned.

COLES, GEO. CHAS., M.R.C.S.—Assistant-Surgeon to the Central London Ophthalmic Hospital, Gray's-inn-road, W.C., *vice* H. A. Reeves, M.R.C.S., resigned.

LIDBETTER, T. G., L.S.A.—Assistant to the Resident Medical Officer of the Holloway and North Islington Dispensary, *vice* Alfred H. Hackney, M.R.C.S.E., L.S.A., resigned.

MOORE, J. W., M.D., Ch.M. Dub., L.K.Q.C.P. Ire., L.M.—Temporary Physician to the Fever Hospital and House of Recovery, Cork-street, Dublin.

O'REILLY, RICHARD, L.K. & Q.C.P.I., L.R.C.S.I., L.M.R.C.S.I., M.B., M.A.—Medical Officer, etc., for the Lismore Dispensary District of the Lismore Union, co. Waterford.

PEGUM, THOMAS, L.K.Q.C.P., L.R.C.S.I.—Medical Officer, Public Vaccinator, and Registrar of Births, Deaths, and Marriages for the Craganock Dispensary District of the Kilrush Union, co. Clare.

PHILPOTS, EDWARD PAYNE, M.D. Aber., M.B., etc.—Medical Officer for the Third District of the Poole Union.

ROBERTS, JOHN D., M.R.C.S.E., L.S.A.—Surgeon for the Blackfriars District of the Royal South London Dispensary, *vice* H. J. Thorp, resigned.

ROSE, HARAY, L.D.S.—Dental Surgeon to the National Dental Hospital, 149, Great Portland-street, W., *vice* Mr. C. Lane Clark, resigned.

ROWAN, JOHN F., L.K.Q.C.P., L.M., L.R.C.S.I.—Medical Officer, etc., to the Kilkee Dispensary District of the Kilrush Union, *vice* John Griffin, M.D., L.R.C.S. Edin., resigned.

SAUNDERS, Mr. CHARLES EDWARD—Surgical Registrar at St. Thomas's Hospital.

STANLEY, WILLIAM E. S., L.R.C.S., L.R.C.P., and L.M.—Medical Officer for the Eighth District of the Thingoe Union, Bury St. Edmunds.

MILITARY APPOINTMENTS.

3RD FOOT.—Surgeon John Lyster Jameson, having completed twenty years' full-pay service, to be Surgeon-Major, under Article 342 of the Royal Warrant, dated December 27, 1870.

68TH FOOT.—Staff Assistant-Surgeon William Francis Burnett, to be Assistant-Surgeon.

BIRTHS.

BLACKMAN.—On January 8, at 4, York-road, S.E., the wife of Frederick Blackman, Surgeon, of a son.

CLARKE.—On January 6, at 11, Stafford-street, Edinburgh, the wife of J. J. Clarke, M.R.C.S., H.M.'s 3rd Bengal Cavalry, of a daughter.

CROCKER.—On January 4, at Stoke, Devonport, the wife of Staff Surgeon-Major Crocker, of a son.

DALY.—On January 10, at 101, Queen's-road, Dalston, London, the wife of Frederick H. Daly, M.D., of a daughter.

GROSVENOR.—On January 13, at 121, Ladbroke-grove, Kensington-park, W., the wife of George Fox Grosvenor, M.D., of a son.

HAYNE.—On January 8, at 2, Manor-place, Northfleet, the wife of Frederick Greaves Hayne, M.R.C.S.E., of a daughter.

KIRK.—On October 11, at Zanzibar, the wife of John Kirk, M.D., Acting Political Agent, of a daughter.

RICE.—On January 11, at 8, Sloane-terrace, S.W., the wife of M. W. Rice M.D., of a daughter.

TERRY.—On January 10, at Newport Pagnell, Buckinghamshire, the wife of Charles Terry, Surgeon, of a daughter.

WRIGHT.—On December 11, 1871, at Katmandor, Nepaul, the wife of D. Wright, M.D., Residency Surgeon, of a son.

MARRIAGES.

MARTIN—MAYBERRY.—On January 11, at the parish church, Kenmare, William Holt, third son of William Shuebrick Martin, Esq., The Firs, Burton-on-Trent, to Elizabeth Macgillycuddy, eldest daughter of George Mahony Mayberry, M.D., J.P., of Riversdale, Kenmare, co. Kerry, Ireland.

ROGERS—WILLMOTT.—On January 11, at St. John's Church, Weston-super-Mare, the Rev. Hawkesworth Rogers, Vicar of St. John's, Kilkenny, to Frances Valpy, daughter of Alfred Willmott, M.D., of Weston-super-Mare.

TALAMON—JOHNSON.—On January 11, at Stafford, Georges Paul Talamon, of Elbeuf, France, Vice-Consul of St. Salvador, to Edythe Mary, second daughter of James Johnson, M.R.C.S., of Harcourt House, High Offley, Staffordshire.

TRONSON—CHAPMAN.—On January 13, at St. Mary's, Kilburn, Norman Percy Miles, eldest surviving son of the late Colonel Tronson, 13th (Prince Albert's) Light Infantry, to Emily Harriet, widow of Dr. E. Chapman, and third daughter of Drewry Ottley, M.D., of Pau.

WALKER—HAMMONDS.—On January 16, at the parish church, Clifton, James Frederick Walker, L.R.C.S.I., of Bonmahon, county Waterford, and Swallowfield, Berkshire, to Laura Sarah, daughter of William Thomas Hammonds, Esq., of Clifton, Gloucestershire, and Berrow, Somersetshire.

DEATHS.

FRANKS, GEORGE, M.R.C.S.E., at 3, Mayow-road, Forest-hill, on January 15, aged 68.

KENNEDY, CHARLOTTE, the widow of James Kennedy, M.D., of Woodhouse, Leicestershire, on January 11, aged 80.

WADE, ROBERT, F.R.C.S., at 68, Dean-street, Soho, on January 16.

WARD, Dr. MARTINDALE, of Markham-square, Chelsea, Surgeon-Major South Middlesex Volunteers, at the residence of his eldest son, Saltburn, Twickenham-common, on January 12, aged 52.

WILLIAMS, ANNE, widow of the late J. Calthrop Williams, M.D., of Nottingham, at the residence of her son, Rhys Williams, M.D., Bethlem Royal Hospital, London, on January 11, in her 70th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BATH ROYAL UNITED HOSPITAL.—Medical Officer. Must be M.R.C.S., and either L.R.C.P.L. or L.S.A. Applications and testimonials to the Secretary, on or before January 22. Election February 6.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—House-Surgeon. Must be qualified to practise. Applications to Mr. E. Halliwell, Secretary, on or before January 20.

CALNE UNION.—Medical Officer for the entire Union. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. H. S. Heath, Clerk, on or before January 30.

CANCER HOSPITAL, LONDON AND BROMPTON.—Resident House-Surgeon. Must be M.R.C.S.E. Applications and testimonials to the Chairman of the Weekly Board, 167, Piccadilly, on or before January 22.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician and Physician for the Treatment of Diseases of the Skin. Candidates must possess degrees from one of the Universities recognised by the General Medical Council, and be F. or M.R.C.P.L. Applications to the Secretary, on or before January 30.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Double qualifications required. Further particulars to be obtained of Mr. T. Jones, Secretary, on or before January 22.

CHRISTCHURCH UNION.—Medical Officer. Candidates must be qualified in accordance with the General Orders of the Local Government Board. Applications and testimonials to the Clerk to the Guardians, on or before January 22. Election the same day.

DORSET COUNTY HOSPITAL, DORCHESTER.—Honorary Physician. Candidates must be Graduates of some University of the United Kingdom, or be Fellows or Licentiates of the College of Physicians. Applications and testimonials to the Chairman of the Committee, on or before February 7. Election on the 22nd.

GENERAL HOSPITAL AND DISPENSARY FOR SICK CHILDREN, 16, BRIDGE-STREET, MANCHESTER.—Resident Medical Officer. Candidates must be duly qualified and registered. Applications and testimonials to the Secretary, on or before January 23.

JERSEY GENERAL DISPENSARY.—Medical Officer. Further particulars of the Rev. P. A. Le Feuvre, Oakwalk, Jersey. The election takes place early in January, and the duties will commence on February 1.

KING'S COLLEGE, LONDON.—Chair of Forensic Medicine. Applications to Mr. J. W. Cunningham, on or before January 27.

MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Surgeon. Candidates for this appointment are required to be M.R.C.S.E., not engaged in the practice of Midwifery or Pharmacy. Applications and testimonials to the Secretary, on or before February 7.

MIDDLESEX HOSPITAL.—Resident Obstetric Assistant. Must possess one legal qualification. Applications and testimonials to the Secretary, at the Hospital, on or before January 30.

NEWPORT INFIRMARY.—Dispenser. Applications to Mr. Willey, West of England Bank, Newport.

NOTTINGHAM DISPENSARY.—Resident Surgeon and Assistant Resident Surgeon. Double qualifications necessary. Applications to the Secretary, on or before February 12. Election on the 26th.

POCKLINGTON UNION.—Medical Officer for the Second District of this Union. Gentlemen seeking this appointment are required to have the qualifications to practise prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. W. Silburn, Clerk to the Guardians, on or before January 27.

QUEEN'S COLLEGE, CORK.—Professorship of Chemistry. Applications and testimonials to the Under-Secretary, Dublin Castle, on or before January 22.

ROYAL CORNWALL INFIRMARY.—House-Surgeon, Secretary, and Dispenser. Must be a Member of the College of Surgeons of London, Dublin, Edinburgh, or Glasgow; or a Licentiate of the Society of Apothecaries. Applications and testimonials to the Treasurer, Mr. R. Tweedy, Truro, on or before January 20.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Senior House-Surgeon. Medical and Surgical qualifications required. Applications to the Secretary, on or before January 24.

ST. GEORGE, HANOVER-SQUARE, DISPENSARY, 59, MOUNT-STREET, GROSVENOR-SQUARE.—Physician-Accoucheur. Must be M.R.C.P.L. Applications and testimonials to the Honorary Secretary, on or before January 30.

SHEFFIELD GENERAL DISPENSARY.—Assistant House-Surgeon. Medical and Surgical qualifications must be possessed by candidates for this appointment. Applications to the Medical Staff, care of the Secretary, on or before February 2.

TUNBRIDGE WELLS DISPENSARY AND INFIRMARY.—Resident House-Surgeon. Double qualifications required. Applications to the Secretary, on or before January 31. Election on February 5.

WEST HAM, STRATFORD, AND SOUTH ESSEX DISPENSARY.—House-Surgeon, who must be duly qualified. Applications and testimonials to Mr. T. G. Tonge, Dispensary House, Romford-road, Stratford, E., on or before January 24.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Christchurch Union.—Mr. J. H. Cartwright has resigned the Eastern District; area 14,311; population 4321; salary £70 per annum.

Manchester Township.—The office of Senior Assistant Medical Officer at the Workhouse Hospital, New Bridge-street, is vacant; salary £170 per annum, and allowances.

Newark Union.—Mr. R. M. Willan has resigned the Clifton District; area 7970; population 878; salary £12 per annum.

Peterborough Union.—Mr. Joseph B. Bodman has resigned the Caston District; area 9550; population 1643; remuneration per case.

Tonbridge Union.—Mr. E. M. C. Hooker has resigned the Fourth District; area 5784; population 2568; salary £60 per annum.

West Ham Union.—The Second District is vacant; salary £80 per annum.

APPOINTMENTS.

Amersham Union.—John F. Churchill, M.R.C.S, Eng., L.R.C.P. Lond., to the First Chesham District. Richard O. Arnold, L.F.P.& S. Glasg., L.S.A. Lond., to the Second Chesham District.

Nuneaton Union.—Andrew Robinson, M.R.C.S. Eng., L.R.C.P. Edin., to the Nuneaton District.

DR. KEMPSTER has been elected Medical Officer of Health for Battersea.

A COUNTY ANALYST has been appointed for Cheshire.

THE second son of Dr. Livingstone, who is studying for the Medical Profession at Glasgow, has become so anxious about the safety of his father, that he has left for London, to offer himself as a volunteer in the expedition to search for his father.

AT a meeting of the contributors of the Edinburgh Royal Infirmary, held on Monday, a report was adopted recommending the managers to devise means for admitting women to Medical instruction in the institution without prejudice to the male students.

MR. MALTHOUSE called the attention of the Newington Vestry, last week, to the fact of a large number of persons in receipt of parochial relief living in dwellings totally unfit for human habitation. The Medical officer undertook to confer with the relieving officer at once, and to report on the subject at their next meeting.

MEASLES, in an epidemic form, has broken out at the Southall Schools, belonging to the parish of Marylebone. The disease is reported to have been very fatal, but a subsidence is, we are glad to say, observable.

AT the Commissioners of Sewers' meeting, on Tuesday, it was stated that no less than nine main sewers, and nineteen smaller ones, in the city of London, still emptied their contents directly into the river.

ACCORDING to the *Edinburgh Courant*, an interdict has been lodged in the Court of Session against the gentlemen nominated as Managers of the Royal Infirmary by the Lord Provost, at a meeting of the contributors on the 1st inst., taking their seat at the Board of Management. An interim interdict has been granted.

A MAN has been appointed by the Chelsea Vestry to look after the dust-carts and see that the contract is properly carried out and all the dust removed. This supervision is very necessary.

CLINICAL SOCIETY.—At the next meeting of this Society an address will be given by Dr. Gull, the President. At its conclusion Mr. Cooper Forster will read a paper upon "Popliteal Aneurism." The subject of "Condurango, the Reputed Remedy for Cancer," will then be introduced by Mr. Hulke; and, lastly, Mr. T. Bryant is announced to read a paper upon "Two cases of Recto-vesical Fistula treated by Colotomy."

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—SESSION 1871-72.—The next meeting will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, January 20, at 7.30 p.m., Robert Druitt, M.R.C.P. Lond., F.R.C.S., President. A letter will be read from the Board of Trade, on the "Water Supply of London." Dr. F. Crace Calvert, F.R.S., F.C.S., will deliver an address comprising the following subjects:—1. Production of Protoplasmic Life. 2. Action of Heat on certain Primitive Forms of Life. 3. Action of Concentrated Solutions of various Chemical Substances on certain Primitive Forms of Life. 4. The Comparative Power of some Antiseptics and other Substances to prevent the Development of Protoplasmic and Fungous Life. 5. The action of the same Antiseptics and Substances upon certain Primitive Forms of Life.

WOMEN-DOCTORS IN INDIA.—The Mahomedan Nawab of Rampere has presented to the Bareilly Mission a large building, for the purpose of a Medical school for women. Several women are now going through a scientific course of instruction.

MEDICAL STUDIES AT CAMBRIDGE.—It is announced that Professor Humphry will continue the course of lectures on Practical Anatomy on Mondays, Wednesdays, and Fridays, at 6 p.m. The course of Anatomy and Physiology will be continued on Tuesday, January 30, at 1 p.m., and on Wednesdays, Fridays, and Saturdays. This course is intended for students of natural science as well as for Medical students. The Microscopical Demonstrations will be continued on Tuesday, February 13, at 6 p.m., and on alternate Tuesdays. The course of Practical Histology will be continued on Saturday, February 3, at 11.30, and on each succeeding Saturday. The Professor of Chemistry will begin a course of lectures on Chemistry on Monday, January 29, at 12 p.m., in the chemical lecture-room, and continue them on succeeding Mondays, Wednesdays, and Fridays, at the same hour. Gentlemen requesting certificates of attendance for the degree of B.A. must provide themselves with tickets from the Registrar; the fee for others will be two guineas. Those who propose attending are requested to leave their names at Messrs. Deighton, Bell, and Co.'s, to whom the fees may be paid.

Unusual Recognition of Medical Services.—"In testimony of his great kindness and Professional services," a lady who has recently died has left to our good *confrère* Dr. McIntyre, of Odiham, the sum of £4000. She has also appointed him one of her executors, with a legacy of £100. Such recognitions of Professional services are not merely grateful compliments for the skill which no science or art, except Medicine, can supply; they encourage the skill by proving how handsomely it is sometimes appreciated and acknowledged.

Académie des Sciences.—The election of Corresponding Member in the Section of Zoology, which excited so much discussion in the Academy last year, and was on account of the troubles of the time postponed, is about again to be brought forward. The contest of last year in the section arose as to whether Bischoff or Darwin's name should head the recommendatory list. MM. Milne-Edwards and Quatrefages voted for Darwin, and MM. Blanchard, Robin, and Longet for Bischoff. This year the Darwinites will prevail in the section, as M. Lacaze-Duthias now occupies the post vacated by the decease of M. Longet. M. Coste this year, as last, has been prevented by official duties from participating in the deliberations

A Prolonged Work.—Professor Chevreul read, at the Academy of Sciences, the other day, the first part of a memoir on "Wools and Dyeing." The work was undertaken in co-operation with a Spanish general who was shot in 1813. We hope M. Chevreul may be able to take the same period of time for the completion of the second part of this interesting memoir. —*Union Méd.*, January 13.

Temperature of the Subsoil in Severe Frosts.—According to the researches of M. Becquerel, under a denuded soil, at five centimetres depth, the thermometer during severe cold will sink to 1·5° C. below zero; but when the soil is covered with turf or with snow it never sinks below zero. At ten centimetres depth the temperature remains invariable.—*Gaz. Méd.*, January 6.

M. Elise Reclus.—The following is a copy of the petition signed by many English scholars and men of science forwarded on January 3 to the Commission of Pardons sitting at Versailles in favour of M. Elisé Reclus. Unhappily, the statement that the prayer of the petition has been granted is premature, and a second or supplementary petition is consequently in the course of signature:—

"To the President, Vice-President, and Members of the 'Commission des Grâces' appointed by the National Assembly to consider the applications for pardon and commutation of sentence of persons connected with the Commune.

"We, the undersigned (British subjects and others), men of science, entertaining a high opinion of the past services to literature and science of Monsieur Elisé Reclus, a prisoner now under sentence of deportation, beg permission to make an earnest appeal to your clemency in his favour.

"We cannot but believe that his connexion with the insurrectionary body of the Garde Nationale was solely an accident of circumstance, or an unwilling concession to *force majeure*, and not the result of his natural character, his habits and mode of life being those of a lover of peace, and a calm student of the laws of nature, as his works testify.

"We therefore implore your clemency for him, and entreat that, if it should appear to you unadvisable wholly to remit the sentence imposed on M. Reclus, you may be pleased at least to commute it to simple banishment, so that he may retire to some foreign land, and there pursue his valuable studies.

"In the hope that you will excuse and favourably entertain this petition, your memorialists will ever pray, etc."

This has been signed by the following well-known Medical authorities:— William Benjamin Carpenter, M.D., F.R.S., Registrar of the University of London; Richard Owen, F.R.S., Associé étranger de l'Institut (Académie des Sciences); Henry Lee, F.L.S., F.G.S.; Henry T. Stainton, F.R.S., F.L.S.; James Salter, F.R.S., F.L.S.; Thomas D. Bott, F.G.S.; Owen Rees, F.G.S.; Benjamin W. Richardson, M.A., M.D., F.R.S., F.R.C.P., Honorary Physician of the Royal Literary Fund; T. Burdon-Sanderson, M.D., F.R.S., Professor of Practical Physiology, University College, London; Charles Murchison, M.D., F.R.S.; T. Spencer Cobbold, M.D., F.R.S., "Swiney Leeturer on Geology, British Museum; H. Charlton Bastian, M.D., F.R.S., Professor of Pathological Anatomy in University College; Erasmus Wilson, F.R.S., Professor of Dermatology in the Royal College of Surgeons of England; and many others equally eminent in their several departments.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. G. A. Abrath.—We shall be glad to receive your manuscripts.

Podophyllum.—Some time in February. Look out for the advertisement.

Chrystal.—Hartnack has no agent in London. Apply to Rue Dauphine, Paris.

Mr. F. Staples, Fuchsmurra Depôt.—Your letter, with enclosure, has come safely to hand.

The Declaration Respecting Alcohol.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your journal of this week it is said—"One of the latest and most striking instances of this unlucky Declaration (the Medical Declaration concerning Alcohol) is that a proposal is afloat, and several thousands of pounds have been collected, for the erection of a new Hospital, where patients in acute disease are to be treated without alcohol."

You will, I am sure, be willing to give publicity to the correction of the above statement which I am able to supply. The proposal to found a Temperance Hospital has had no connexion whatever with the Medical Declaration, and until the appearance of that document a majority of the members of the Provisional Committee had no knowledge of its tenor, or of the signatures that would be attached to it. The Hospital suggestion could not arise from the draft of the Declaration, for it was prior to it, and the action in relation to each has been absolutely independent from first to last. I am, &c.,

January 13. Dawson Burns, M.A.,
Metropolitan Superintendent, United Kingdom Alliance.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The now celebrated Declaration having been sent to me for signature, I think it right to say that while I deeply regret that any Practitioner of Medicine should ever have been guilty of inconsiderate prescription of any drug, I cannot sign the document for the reason that I cannot blame myself for having ever done so in the matter of alcohol.

The Declaration reads very like a confession of sin on the part of those who have signed it; and if so, they may be right in thus unburthening their consciences; but it would have been more considerate had the word "some" been placed before "Medical men," for then the Declaration would have been more limited in its scope, and more definite in its meaning. As it is, the public may be led to believe that the distinguished names attached to it represent the whole of the Profession, or at least that they are the chief sinners. I am, &c.,

Birmingham, January 13. Lawson Tait.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Notwithstanding the array of great names—leaders of our Profession—names justly celebrated, and giving rank and influence to us—this document, many think, makes a great mistake—a mistake for the most part in phraseology, by which, instead of a caution, it becomes a charge of contributing to and encouraging, at the present time, a most debasing and prolific cause of destruction to health, and also crime and poverty. We are certainly not responsible for the low habit of drinking at public-houses and beerhouses, and its consequence, which is the vice of the working-classes. I was sorry to see that Dr. Dalrymple, to whom society owes an obligation, from his exertions to meet this evil, was so ill-received in consequence at Bath. At all events, it shows that, wherein class legislation was so much talked of as belonging to the upper classes, the remark has a different application. I trust, however, that this document, whatever its informalities, may do good, and caution Medical men not to yield too much to requests from the poor to get recommendations for brandy and wine, which they hawk about; and, at the same time, to be cautious of sending them to the relieving officer for similar purposes, when quinine, sal volatile, and camphor may answer as well or better. As an old-experienced Medical man, I may be excused making these remarks.

Nailsworth, January 16. I am, &c., Thomas Stokes.

Temperance.—Dr. McMurtry's attack on his Professional brethren is really scarcely worthy of even a passing notice in our columns. Wholesale assertions without proof, and universal abuse without deserving, are the usual characteristics of writers on what is foolishly called the "temperance" question.

L.R.C.P., M.R.C.S., and L.A.S., 1836, must by this time have arrived at our opinion with regard to the "Medical Declaration respecting Alcohol." It is probable that the attack upon the Profession by a number of their own body will have met with all but universal condemnation.

Dr. Dunderdale (Warrington).—We are glad to perceive that Dr. Dunderdale repudiates the paragraph which appeared in last Saturday's *Warrington Examiner*, entitled "Gratitude to Dr. Dunderdale." Sheridan says such puffs oblique are often the work of "a d—d good-natured friend."

(From Dr. Abrath, Newcastle.)

We have at present a great many cases of scarlatina, diphtheria, small-pox, fever, etc., in the country, and frozen milk or cream are valuable agents in such cases. I give you the liberty to mention my treatment in a note in your journal, and I will send shortly a contribution on the subject. *How to freeze milk or cream in the absence of ice-machines.*—Take a half-pint tin pot filled with milk or cream (if the milk, etc., has been standing in a warm room, put a piece of ice the size of a walnut into the milk), and place a cover on the pot. Take a second vessel, say a half-gallon pot, put a handful of common table-salt at the bottom, and place the half-pint pot, filled with milk or cream, on the salt. Now, take about two pounds of ice, broken in pieces, but not too small; mix with the ice two or three handfuls of table-salt, and place in the space between the two pots, until such space is well filled; also, add a tablespoonful of water to it, and occasionally move the half-pint pot round in the ice and salt—the milk or cream will soon freeze. If the quantity is not used in a short time, mix some fresh ice and salt, and place the tin pot, with the ice-milk or cream, in it.

Charing-cross Hospital.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the *Standard* of the 8th inst. there is a paragraph, extracted from your valuable journal, relative to laying down asphalte in the streets which surround this Hospital; and living, as we do, in the immediate neighbourhood, we fully endorse the statements made therein, more especially as regards the great traffic that takes place after the theatres are closed, and the continued noise made by the passage of market carts on their way to Covent Garden in the nights and early mornings preceding market days.

His Grace the Duke of Northumberland, with that liberality and kindly feeling for which he is so justly esteemed, some short time since made a communication to the Vestry of St. Martin-in-the-Fields relative to this matter, proposing, in the interest of the Hospital, that he might be allowed, by subscription or otherwise, to take up the present old granite paving and lay down asphalte; we are not at present informed of the result of that proposition. In addition to this, the inhabitants of King William-street, Strand, presented a memorial to the Vestry on the same subject, which was answered by stating that the levels of the streets were such as to preclude the possibility of laying down asphalte, an opinion which we certainly do not entertain, King William-street, as stated in the answer, being only one in fifty-five gradient.

In conclusion, we would mention the fact that the inhabitants of the Strand had previously memorialised the Vestry to have that important thoroughfare paved with asphalte, and their memorial was answered in the same terms by the above-named Vestry of St. Martin-in-the-fields, the great majority of whose members happen to reside in other parts of the parish, and so, unfortunately, fail to see the importance of the improvement, although the Vestries of St. Clement Danes and St. Mary-le-Strand had already expressed their great desire to have those portions of the Strand situate in their respective districts paved with asphalte.

We are, &c., Phythian and Sons, Wine Importers.

432, West Strand, W.C., January 11.

Vesalius.—In a memorial to Sir James Graham from the Metropolitan Teachers of Anatomy, accompanied by an official return of unclaimed bodies sent annually to the schools from 1832-33 to 1844-45, it appears that in the former session there were 613, and in the latter only 340.

Dr. Davis.—Sir James Paget delivered his lecture on the "Recent Progress of Anatomy and its Influence on Surgery," at an evening meeting on July 2, 1851, at the Royal College of Surgeons. It will be found in the *Medical Times and Gazette*, vol. xxiv., p. 29 *et seq.*

Medical Evidence.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It must occur to everyone that there is a sad miscarriage of justice in the trial of cases like that of Mr. Watson (involving a knowledge of abnormal functions of the brain) by an ordinary jury. To be competent to judge of a case demanding the most profound information on the most abstruse department of Medical science, would, it occurs to me, require a special jury of men who had made morbid functions of brain their particular study. Had the insanity been more "pronounced," in the ordinary sense, to the non-Professional mind, he would have been acquitted on the ground of non-responsibility. Because he committed no extravagant acts which violated the conventional ideas of society prior to the killing, he is considered by the jury to have been possessed of his reason, and responsible for his acts. Had they known that this particular form of insanity—melancholia—had arisen as a consequence of the very mental condition—that is, the education, age, sudden reverse of fortune, character, and position of Mr. Watson—no doubt they would not have demanded evidences of mania incompatible with that particular form of the abnormal function of brain.

I have often seen, both in America and England, juries empanelled, who were ignorant of the rudimentary principles of science, yet whose province it was to decide a case involving the most complete scientific knowledge. In Mr. Watson's case it is said by the majority of people, "Had he been a man of no position, the plea of insanity would not have been advanced."

It is exactly these prejudices, outside the merits of the case, which so powerfully bias the mind of the uneducated jury. Collateral circumstances, which are repulsive to conventional ideas, will inevitably cause a conviction of the accused, irrespective of the abstract merits as to his guilt or innocence in relation to the cause which instigated the commission of the act for which he is being tried.

I remember, some years since, a trial for murder in New York. The accused, whose character prior to the event was irreproachable, had, after the killing, which was entirely unpremeditated and in self-defence, and for which he would have been acquitted by any jury in England or America had he at once after the act proclaimed the same to the world, unfortunately became panic-stricken, cut up the body, salted it, and packed it in a box, which he shipped for New Orleans. Decomposition having set in prior to the vessel's departure, the cause of the foul emanation was investigated, the box found, also the carman who brought it. These facts soon led to the discovery of the homicide. The man was duly tried for murder, found guilty, and condemned to be hanged. It was, at the time, a notorious conviction that the fact of pickling the body had produced such a violent repugnant antagonism to conventional ideas, that that fact alone caused the jury to find him guilty, though, in an abstract sense, "the pickling" had nothing to do with his guilt or innocence. The above illustration will enable me to state that, in the case of Mr. Watson, the jury who found him guilty seemed to have been doubly prejudiced—1st, because no act of insanity was committed by the accused according to their conventional ideas of what constitutes insanity; 2ndly, they were prejudiced in the reverse sense to the New York case, as they actually recommended him to mercy in consequence of his advanced age and his previous good character. Had they been educated men in the sense of understanding the abnormal function of the brain arising from sudden reverse of fortune, in a man of special characteristics, education, advanced years, etc., they might have been more influenced by the evidence of so able an authority as Dr. Maudsley, who positively pronounced the accused to be labouring under that most insidious of all mental diseases—melancholia.

For two years I was connected with one of the most extensive lunatic asylums in the United States. The melancholic patients were always marked as being obdurate or insusceptible of kindness; everything connected with themselves was viewed through the most dreary and dismal medium; and when aroused to think, for, in most cases, the brain seemed to be in a most listless, apathetic condition, but if suddenly aroused they would give way to the most violent impulses—that is in true, cases of melancholia, which was invariably accompanied with a suicidal disposition. My object in calling attention to this subject is to record the apparent indifference with which so able an exposition of melancholia by Dr. Maudsley was treated by the jury, who evidently were influenced more by the social position of the accused than by the condition of his brain involving his mental responsibility. I am, &c.,

199, Brompton-road, S.W., Jan. 13. Robert H. Collyer, M.D.

*** A correspondent (J. F.) writes from South Australia:—

"I read with great interest your account of the Leeds General Infirmary. I commenced as house pupil to the late Samuel Smith, Surgeon to that Infirmary, and was a dresser at the Infirmary for five years—before the Factory Act was passed; the Act reduced the operations fearfully. I was also house-pupil to Mr. Cæsar Hawkins—for whom I have the highest regard—and afterwards curator to the Leeds School of Medicine: myself and another man made the great bulk of the anatomical museum which they now possess. My object is to mention that the name of Samuel Smith is not mentioned by Sir Wm. Fergusson in relation to lithotomy. I see there are some lithotomy knives named after Sir William. I am surprised Sir William should allow his name to be attached to them, as he has not the remotest claim whatever. The late Sir Charles Bell was the first that used the common scalpel. A Mr. Barlow added a probe point, with a long steel neck and an octagon wood handle—an awkward instrument. When I was a pupil with Smith, he added the probe point to the scalpel, and had three sizes—large, middle, and a small knife for children—and they are now made by Gay, of Leeds. Smith was the most successful operator for stone that ever lived. I was always his assisting genius, when a pupil, and was with him at twenty to twenty-five operations, and all good recoveries—not one died. I am only aware of two patients dying that he operated on during his whole life, and he was Surgeon to the Infirmary for about forty years. He was equally successful in all his other operations. He could never bear to have anything he did made public."

We are not acquainted with the lithotomy knives said to be named after Sir William Fergusson. That distinguished Surgeon certainly lays no claim to originality in this respect in his published writings. We believe that he follows the method, long and brilliantly practised by Mr. Liston, of employing a sharp-pointed bistoury for the first incision, usually substituting for it a probe-pointed knife in completing the incision of the prostate. The knife used by Sir Benjamin Brodie differed hardly at all from that employed by Mr. Samuel Smith. Both instruments consisted of scalpels with rather wide bellies, the back of the blade being continued for a few lines as a blunt probe. The only essential difference between the old gorget and the probe-pointed bistoury referred to by our correspondent is, that with the gorget the depth of the incision depends mainly upon the breadth of the instrument; while with the bistoury the angle it forms with the staff when pushed through the prostate regulates the size of the incision. The complaint usually lodged against the gorget is a supposed liability to slip; but to this accident the blunt-pointed knife—as has been pointed out by Sir Henry Thompson—is surely quite as liable.

The Use of the Soil-pipe.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In 1860 I printed "A House for the Suburbs, socially and architecturally sketched," and, in a second edition the next year, stated explicitly that I had found it advantageous in practice to continue the soil-pipe quite up to the gutter, letting it serve also for rainwater, and where that could not be done, to carry a small pipe upwards through the roof—above windows, for instance—in the same or any immediately contiguous edifice. That edition has been long out of print, but the particulars somewhat amplified are repeated in the issue of last year. My sanitary application of the soil-pipe, therefore, dates previously to 1861.

Two very important improvements distinguish the modern sewerage of London—flushing and ventilation. By the first an end has been put to those enormous and stagnant deposits that went on accumulating and putrefying for years, and were at length removed by opening the surface of the roads. The advantage of this system cannot be over-rated, especially if the fouler effluvia and more dangerous consequences are due to secondary decomposition. By ventilating the main sewers at frequent points, the upward pressure of the gas is relieved, and the exhalations are rendered innocuous by being passed through baskets of charcoal. Were the common sewers of the streets (which are under the care of district boards) dealt with as carefully as the main sewers under the Metropolitan Board of Works the quantity of foul air entering the drains of houses would be greatly reduced.

In 1865 I addressed the Metropolitan Board on the applicability of the soil-pipe to the ventilation of sewers and drains generally, and the next year a committee suggested that a competition should be instituted, and a premium paid for the best communication, but the matter appeared to slumber, though not so in effect; for the Parliamentary powers, pointed to in my letter as requisite, will be acquired under the Building Act expected to pass the Legislature next session. District boards will thus, by means of by-laws, be able to cause every soil-pipe to be left open at the top.

Cases are understood to have happened where officials have connected the public drains with external pipes of private houses, but legal proceedings having been threatened, the nuisance so caused had to be abated. Common rain-pipes are unfit for the purpose, because their loosely fitting socket joints would allow the gas to escape near the ground, but the soil-pipe is continuous, and all the joints rendered perfectly air-tight by solder. Every inlet is trapped, and it should be distinctly understood that I advocate every possible precaution of the kind, and add another which leaves no pent-up body of foul air under pressure ready to force its way through them.

It has been objected that if the soil-pipe is to become a ventilator it should not be used as a rain-pipe, on the assumption that where rain-water is passing down the sewer gas would be unable to ascend; but this is a mistaken view. The object of opening the head of the pipe is not primarily to induce a rush of foul air from the sewers, but to give free vent to such as it happens to contain. If, therefore, the volume of rain-water were so great as to form a sort of moving plug, forcing all other bodies downwards before it, and no foul air could consequently ascend, the chief object would be gained. But the probability is that there would always be a

sufficient void to allow an ample upward current of air. It would be better, if necessary, to increase the capacity of the pipe, since the pure water could hardly fail to act as a washing and purifying agent on the gases rising through it.

I conceive that from the extreme lightness of hydrogen, which is the carrying medium of the gaseous impurities of sewers, they would rise to a considerable elevation before the equality of gravity would take place, and the diffusion must be so extensive as under the natural movement of the atmosphere to meet every sanitary requirement. Whether by largely diluting sewage with water and increasing the quantity of air in contact with it the amount carried off as vapour may be to some extent augmented, is a question for chemists; but it is certain that whatever quantity finds its way into house-drains should be passed freely through the building, and for that purpose no other means has equal facilities with the soil-pipe.

I am, &c., THOS. MORRIS, Architect, M.I.B.A.

Carlton-chambers, 12, Regent-street, Dec. 21, 1871.

P.S.—With some attention to their manufacture and methods of fixing, stoneware pipes would prove admirable substitutes for lead. I have so applied them.

COMMUNICATIONS have been received from—

Mr. DOMVILLE; Messrs. PHYTHIAN; Mr. ORMSBY; Mr. N. ALCOCK; Dr. DUNDEEDALE; Mr. C. OATON; Mr. JAYAKAR; Rev. DAWSON BURNS; Mr. H. H. JOY; Mr. LAWSON TAIT; CHRYSTAL; Mr. H. A. REEVES; Mr. R. H. COLLYER; Dr. VINEN; Mr. SHARPIN; Dr. McMURTRY; Mr. F. T. PROCTER; Dr. STEVENSON; Mr. STOKES; Mr. J. BROWN; Dr. ARRATH; Dr. ROBERTSON; Mr. F. A. BULLEY; Dr. HARTSEN; Mr. SPENCER WELLS; Dr. C. J. B. WILLIAMS; Dr. MOXON; Dr. LIONEL S. BEALE; Mr. F. CHURCHILL; Mr. J. CHATTO; Dr. DEWAR; J. A. M.; Dr. FELCE; Dr. BUZZARD; Mr. HOCKLEY; Mr. C. S. TODD.

BOOKS RECEIVED—

Godfrey's Diseases of Hair—Foster on the Prince's Illness: its Lessons—Bradley's Notes on Syphilis—Report of the Royal Albert Hospital, Devonport—Dudgeon on the Mechanism of Accommodation for Near and Distant Vision—A Grave Question for Englishwomen—Report of the Ladies' National Association for the Repeal of the Contagious Diseases Acts.

PERIODICALS AND NEWSPAPERS RECEIVED—

Food Journal—Pharmaceutical Journal—Scarborough Express—Nature—Liverpool Mercury—Chemist and Druggist—Camden and Kentish Towns Gazette—West London Observer.

APPOINTMENTS FOR THE WEEK.

January 20. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9¼ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. A Letter will be read from the Board of Trade, "On the Water-Supply of London." An Address by Dr. F. Crace Calvert, F.R.S., F.C.S.

GRESHAM COLLEGE, 7 p.m. Dr. E. Symes Thompson, "On the Pulse."

ROYAL INSTITUTION, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakspeare's Time."

22. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Second Lettsomian Lecture, by Dr. Habershon, "The Liver and its Bloodvessels."

23. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Dr. Rutherford, "On the Excitability of different Parts of the Trunk of a Spinal Nerve." Dr. C. A. Gordon, "On Forms of Surgical Returns and Reports to be used in War."

ROYAL INSTITUTION, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

SOCIETY OF ARTS, 8 p.m. Meeting.

25. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

26. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Meeting.

ROYAL INSTITUTION, 9 p.m. The Most Rev. the Archbishop of Westminster, "On the Demon of Socrates."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 13, 1872.

BIRTHS.

Births of Boys, 1166; Girls, 1139; Total, 2305.
Average of 10 corresponding weeks, 1862-71, 2127·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	794	838	1632
Average of the ten years 1862-71	852·1	869·2	1721·3
Average corrected to increased population	...	...	1893
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	3	5	2	12	...	5	1	...
North ...	751668	32	23	5	...	32	...	6	4	...
Central ...	333887	8	4	2	...	11	...	1	...	1
East	638928	17	12	6	1	22	...	5	1	2
South	966132	31	9	5	...	38	1	8	6	...
Total	3251804	90	51	23	3	115	4	25	12	3

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·605 in.
Mean temperature	40·3°
Highest point of thermometer	51·0°
Lowest point of thermometer	32·2°
Mean dew-point temperature	37·7°
General direction of wind	S.W.
Whole amount of rain in the week	0·71 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 13, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Jan. 13.	Deaths Registered during the week ending Jan. 13.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2305	1632	51·0	32·2	40·3	4·61	0·71	1·80
Portsmouth ...	115455	12·1	74	36	59·4	28·4	40·3	4·61	1·08	2·74
Norwich	81105	10·9	50	58	48·0	29·8	37·0	2·78	0·56	1·42
Bristol	186428	39·8	143	85	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	41	65	51·9	30·3	39·2	4·00	0·57	1·45
Birmingham ...	350164	44·7	308	163	54·0	32·0	39·9	4·39	0·37	0·94
Leicester	99143	31·0	75	61	51·5	28·5	38·7	3·72	0·47	1·19
Nottingham ...	88225	44·2	57	52	49·6	27·8	37·1	2·84	0·49	1·24
Liverpool	499897	97·9	365	283	53·4	31·6	41·4	5·22	0·67	1·70
Manchester ...	†352759	78·6	274	204	...	...	...	...	...	...
Salford	127923	24·7	116	72	52·8	23·0	38·5	3·61	0·84	2·13
Oldham	84004	20·2	53	42	...	...	...	...	...	...
Bradford	151720	23·0	139	83	...	...	...	...	...	...
Leeds	266564	12·4	185	131	50·0	29·0	39·2	4·00	0·39	0·99
Sheffield	247847	10·9	187	171	52·0	27·5	39·3	4·06	0·45	1·14
Hull	124976	35·1	98	79	48·0	24·0	35·6	2·61	0·64	1·63
Sunderland ...	100665	30·4	61	75	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	104	88	...	...	...	...	...	...
Edinburgh	205146	46·3	146	139	50·0	25·0	34·6	1·45	0·70	1·78
Glasgow	489136	94·8	377	289	49·0	28·0	38·8	3·77	1·71	4·34
Dublin	310565	31·9	151	248	55·0	28·0	41·5	5·28	0·54	1·37
Total of 21 Towns in United Kingd'm	7394345	34·0	5309	4058	59·4	23·0	38·8	3·77	0·68	1·73

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·61 in. The highest was 30·01 in. on Friday at noon, and the lowest 29·11 in. on Monday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,095, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the corrected number for 1871.

ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture II.

(*Continued from page* 32.)

State of the Blood Prior to an Attack of Fever.

That the blood is not in a healthy state prior to an attack of fever is proved by many facts, though analyses of the blood during the period of incubation of fever poisons are wanting. The bioplasm is probably in larger proportion than in the healthy state. The minute particles of living matter which I have shown to exist in the blood in vast numbers, and to pass through the walls of the capillaries in certain cases,(a) probably increase in every feverish condition. But, besides this, the white blood-corpuscles and the masses of bioplasm in the walls of the vessels and in the tissues become larger, as was described in my Cattle Plague Report, published in 1866. The increase of the bioplasm in the blood, in the vessels, and in the tissues is preceded by the formation in the blood of pabulum adapted for its nutrition. This soluble nutritive matter would have been converted into excrementitious substances in the normal state, and its accumulation in the blood would have been thus prevented; for, as is well known, in health, excess of food introduced into the stomach does no harm, because the amount over and above that required for the system is soon converted into excrementitious matters, which are excreted and removed altogether from the body. As an indication that the blood is changed, I need only advert to the fact that it has been noticed over and over again that slight wounds or abrasions of the skin do not heal when fever poison is circulating in the blood. The bioplasm of the wound grows very fast, and time is not allowed for cicatrisation. Perhaps very minute particles of the bioplasm which multiply in the blood are continually escaping, suspended in the serum through the walls of the capillaries. Unquestionably the capillary circulation is less free than in health, and sometimes this is so marked as to cause a peculiar and characteristic dusky appearance of the skin, which often attracts the attention of friends.

In many instances evidence of derangement of the blood is afforded by the fact of the existence of considerable disturbance in the healthy functions. The appetite is bad, there is giddiness, and perhaps headache, besides which the nervous and muscular systems are so disturbed as to cause a feeling of fatigue and general languor and discomfort. Muscular movements are accompanied by pain and uneasiness, and the patient is disinclined to move about. Very little exercise gives rise to great fatigue, and every movement of inspiration becomes an actual effort. Oftentimes, however, these derangements are not sufficient to attract attention; and when the fever breaks out the patient appears both to himself and to his friends to have passed almost suddenly from a condition of health into what may become a very serious and perhaps dangerous fever. Sometimes during the time when the poison is growing and multiplying in the blood, the person is over-fatigued, and only able to perform his usual amount of work by dint of making a great effort; or by an unfortunate coincidence he may have been compelled to work unusually hard, while at the same time, in consequence of his appetite being bad, he has been able to take little sustenance. The severity of the subsequent fever, as well as the danger to life, are much increased by such circumstances and by want of care during the period of incubation. But the feverish symptoms may come on so gradually that the patient himself is hardly aware he is really unwell, although his temperature may be four or five degrees above the normal standard. Some persons have so much courage that they refuse to yield until they are no longer able to move about, and the state of fever is thoroughly established. If, however, the patient rests much during the ante-febrile period, takes beef-tea and a little wine, and makes no effort to conquer the feelings of lassitude he experiences, he will be more likely to pass through the illness favourably, and, if he have a severe attack, battle successfully against it, than if his strength be exhausted before or during the first few days of the feverish state.

There is, however, reason to think that changes have been going on long prior to the development of the fever, and that the body of the victim of fever poison has been prepared for the growth and multiplication of disease germs by a long course of preliminary change. I think that the condition favourable to the contraction of fever slowly results from long exposure to circumstances adverse to health. And although an attack of typhoid, for example, may be a direct consequence of exposure to the emanations from filth, it is quite certain that the body and the blood of the person attacked have been seriously deranged by previous exposure to noxious influences, or to circumstances likely to exhaust the energy and depress the health. In some instances we may obtain evidence that for many weeks or months the organism has been unconsciously, but most surely, prepared for the reception of the poison. It is the development of this state of derangement that we so much desire to interfere with. Could we succeed in preventing the preliminary changes in the blood, or restore that fluid to its healthy condition when it is only slightly deranged, thousands of lives would be saved annually.

Sudorific Remedies, Diuretics, and Purgatives.

Under this head I propose to refer very briefly to some of the remedies which I have myself been in the habit of most frequently prescribing. The number of sudorific, diuretic, and purgative drugs is very large, and many of them act in the same manner. Whether, for example, we employ a citrate or a tartrate probably matters, in the majority of cases, very little; but the tendency to diarrhœa or to constipation might, in certain instances, influence our choice of one or other of these salts. Of all the saline sudorifics usually prescribed during the feverish state, I believe *liquor ammoniæ acetatis* to be one of the most useful. Some consider it, as well as other alkaline acetates and citrates, to be of little or no value; but, from experiments tried upon myself, I feel convinced that the solution of acetate of ammonia does good in the feverish condition of body. Many years ago I used to suffer greatly from quinsy, and I found that, when I took plenty of acetate of ammonia, the swollen tonsil soon became less. My experience of its use in others is equally satisfactory. I think that we usually give it in too small doses. Half an ounce every four hours for an adult is not too much, and it may be continued for several days. I think it really acts upon the liver as well as the secreting organs of the skin and on the kidneys; but, besides this, I believe it does good by promoting the removal of saline and other constituents from the tissues, and favouring their elimination. The feeling of tension and general discomfort which is experienced at the commencement of an ordinary catarrhal attack is often relieved after two or three doses of liq. ammon. acet. have been taken.

A glass of hot spirits or wine and water, a dose of sulphuric ether and sweet spirits of nitre or a little ipecacuanha, a small dose of Dover's powder or of antimonial (James's) powder have been found to work wonders. Even a tumbler of hot water, or a basin of hot gruel or arrowroot, will relieve the feverish symptoms for a time, by promoting perspiration. Diuretic medicines also enjoy a high reputation for curing feverish attacks; bicarbonate of potash, bitartrate of potash, acetate and citrate of potash, and a number of others are in common use. Nitre (nitrate of potash) dissolved in plenty of water, or added to linseed tea or some herb tea, is a very old as well as a very useful remedy. If the kidneys are perfectly healthy their free action should be encouraged, as diuresis affords the greatest relief. There are some persons whose sweat-glands act very slightly, and upon whom neither sudorific remedies nor the hot bath exert much influence, but whose kidneys, on the other hand, are easily excited to act most freely, and respond almost immediately to the simplest diuretics—even a glass of water.

Purgatives.—As already mentioned, the opinion that an attack of impending illness has been averted by free diarrhœa is very generally entertained, and is probably correct. It seems possible that in this way substances capable of producing a deleterious effect upon the economy may be removed, and it seems not impossible that in some cases even disease germs may be carried out of the system before the time has arrived for them to produce their characteristic effects; and it is, at any rate, certain that morbid materials which may have been for some time accumulating in the blood may be in this way directly removed; and at least, in this respect, the body will be in a more

(a) *Transactions of the Microscopical Society*, December 9, 1863, "On the Germinal Matter of the Blood," etc.

favourable condition to bear an attack of acute disease than would have been the case had such noxious materials still remained in the circulation. Moreover, many of us, after having been exposed to the influence of noxious gases and other deleterious agents, have been seized with symptoms similar to those which often precede a specific feverish malady, but have been completely relieved by a sharp and sudden attack of diarrhœa. These and many other circumstances which I will not stop to recount have been considered by many to justify the old-fashioned practice of giving purgatives at the commencement of an attack of acute illness, or on the occurrence of symptoms which seem to portend an attack. Like other routine practice, this has been rightly condemned; but nevertheless, I believe it to be thoroughly sound practice in many instances, and I think that of late years patients have been allowed to suffer from great inconvenience and discomfort for many days, when a simple purge might have produced immediate relief. To purge freely just as an attack of enteric fever is coming on would unquestionably be very wrong; but, on the other hand, what relief is sometimes afforded by the administration of a sharp purge in many a case in which we have reason to think pneumonia, or bronchitis, or pleurisy, or acute rheumatism is about to supervene!

I have more than once seen acute surgical fever, in which the temperature was 104°, following an operation, suddenly cut short by a dose of calomel; and even in cases in which the symptoms were such as to justify the inference that inflammation of the membranes of the brain was commencing, two or three good doses of calomel have apparently been the means of effecting a cure. Nor can I believe that the practice of giving sharp purgatives, so frequently adopted by the late Dr. Chambers, rested upon an altogether erroneous view, and was entirely superfluous and useless. I doubt if the old woman's detestable dose of warm salts and senna, administered with never-failing regularity once a month to each unfortunate little schoolboy of former days, was by any means an unwise or even an unscientific proceeding. I am not at all sure that many an organism which becomes the victim of disease-germs would not have been able to resist the contagion had the excreting organs been judiciously excited to moderate action at the proper intervals of time. It is probable that the occasional free action of the bowels, skin, and kidneys greatly diminishes the chance of contracting disease. Salts, senna, jalap, scammony, and cream of tartar are remedies very often used, in one form or another, by people who are their own Medical advisers, and who work hard; and many of those who waste enormous quantities of meat and beer, upon the false notion that these are required to give them the necessary strength, discover, as they get older, that a good purge every now and then affords the greatest relief, and they not infrequently communicate to others their own experience.

The various purgative saline waters—Carlsbad, Freiderichshall, Pullna, etc.—and purgative salts, such as Seidlitz powders, salts of magnesia, soda, etc.—are largely taken by the classes who are not dependent for their livelihood upon muscular exertion, and who take far more nutriment than their system requires. It seems to me quite in accordance with reason to conclude that, where the excreting organs of the alimentary canal habitually act imperfectly, not only will great benefit result from the judicious use of certain purgative remedies, but that the blood may be preserved in such a state as to render the changes which occur in fever improbable, if not impossible.

Upon careful inquiry of those who are the subjects of feverish attacks, it will not infrequently be found that the health has been slightly deranged for some time previously; and that, among the many slight or trivial symptoms experienced, there is almost always evidence of imperfect and irregular action of the alimentary canal, and of the many important excreting glands connected therewith.

Who can suppose that the very imperfect action of the large bowel so frequently experienced by those who live in cities can conduce to the healthy condition of the tissues? Excrementitious materials which should be entirely removed get reabsorbed into the circulation, and, though no doubt changed and perhaps excreted from other surfaces in a different state, cannot fail to derange, at least to some extent, the delicate action of the nervous and muscular tissues. The detestable odour of the breath so disagreeable both to the patient himself and his friends, and more rarely the strong-smelling matters secreted by the sebaceous glands of the skin, are due to this cause in some instances; indeed, the experience of every Practitioner must afford many convincing proofs of the correctness of this reasoning: the patients themselves are well aware of the great benefit which results from an occasional free action of the bowels, and, indeed, not a few have discovered by experiment that in order to keep themselves in health it is necessary to take at certain intervals a dose of purgative medicine. Of all purgatives, mercurial preparations are of the greatest use in these cases. Purgative treatment is by no means necessary for all persons, but it is unquestionably advantageous to many. Not a few working men have not only discovered that an occasional purge is necessary to keep themselves in a state fit for work, but they have found out by experiment the particular kind of purgative which produces the best effect. Those who have of late years been loud in their condemnation of the use of mercury are perhaps not aware that the much-maligned calomel enters into the composition of most of the purgatives which enjoy the highest repute amongst labourers and artizans, as well as the powders which the mothers of families in every part of England have found to be most beneficial in the treatment of many of the ailments from which their children from time to time suffer. Podophyllin is also a valuable purgative, but somewhat uncertain in its effects. It should be given in doses of not more than one-third of a grain with colocynth, rhubarb, or some other purgative. It should be distinctly borne in mind that the object of giving a purgative is not merely to unload the large bowel, for purgatives are often eminently useful in cases in which there is certainly no fæcal accumulation. As has been already intimated, by purgation fluid is rapidly removed from the blood, and with the fluid so passing away many other things the presence of which is deleterious escape.

The different classes of remedies, the action of which has been referred to, effect a change in the composition of the blood. Diuretics, sudorifics, and purgatives promote the removal from the circulating fluid of substances which accumulate in it, and which are calculated to disturb healthy action if they are not got rid of. No doubt, in perfect health, the exercise taken, the fluid drank, and certain materials taken in the food promote the action of these emunctories sufficiently; but the artificial conditions, especially as regards insufficient air and exercise, under which most of us have to live, necessitate attention to these points. By all the remedies above referred to the removal from the blood of fluid holding in solution various substances is insured. Neither perspiration, nor diuresis, nor purgation can occur without the escape of much watery fluid. By the removal of this fluid, thirst is excited, and a demand for the introduction of more fluid—which, in its turn, is got rid of—soon follows. In this way various soluble and some imperfectly soluble substances which had accumulated in the blood in undue proportion are gradually removed, and the feverish condition may cease. In other words, the healthy state may be restored by the use of appropriate remedies in efficient doses. The *illness* consists of the non-removal of these substances and their gradual accumulation, until the normal action of many tissues, and particularly that of muscles and nerves, is disturbed. In slight cases a similar result is obtained by rest and by withholding food for four-and-twenty hours, and the *cure* (!) of the feverish condition is brought about as effectually as by the administration of remedies, though perhaps less pleasantly, and oftentimes more slowly.

(*To be continued.*)

Death from an Extemporised Vapour-Bath.—On Wednesday, Dr. Lankester held an inquest at the Middlesex Hospital, Charles-street, on the body of John Thrussell, aged 8½ years. Mrs. Thrussell, of 38, Newman-street, mother, said: A fortnight ago last Sunday she got the water ready the same as usual for a vapour bath. She placed him on a chair, put a blanket round him, and fastened it to keep in the steam. She put a pail of boiling water under the chair, and into the water she put a red-hot iron-heater. He had been ill from scarlet fever and inflammation of the kidneys. He was under Medical treatment. A minute scarcely elapsed till he screamed, "Oh! mother, take me up!" The pail, which was half full of water, was six inches from the bottom of the chair. It was the fourth vapour bath he had had. A juryman remarked there was a great difference between the red and white heat of iron. The Coroner remarked that the body was more sensitive to a damp than to a dry heat. Dr. J. A. Lycett, House-Surgeon, said he was brought to the Hospital on December 31, and died on the 13th inst. from extensive scalding of the cuticle over the thighs, and the destruction of the true skin on the back. The jury returned a verdict of "Death from accidental causes." [*** A similar case was was published in the *Medical Times and Gazette* ten years ago.]

ON THE

VARIETIES OF FEVER WHICH FOLLOW SURGICAL OPERATIONS.(a)

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to the Queen's Household and to the Samaritan Hospital.

LECTURE I.

GENTLEMEN,—As we walk through the wards here to-day you may see five patients all recovering after the operation of ovariotomy. The rise in temperature after the operation in two of them only pointed out a very moderate amount of fever. In one woman, from whom a very large tumour was removed —forty-one pounds fluid and ten pounds solid—the temperature only rose from 98·8°, which it was before operation, to 101·0°. In another, where the tumour was twenty-seven pounds liquid and eight pounds solid, the temperature being 99·4° before operation, the highest point was 101·8° on the second day, and on the fourth day defervescence was complete. Both women go home to Lancashire on Saturday, within a month after ovariotomy. In the young girl at the top of the house, the curious fact was observed of the subsidence of fever immediately after the removal of the tumour. The explanation is that the cyst was suppurating. The fever was due to the suppuration, and as soon as the cause was removed the effect passed away. The girl is 21, but looks a mere child. She came in here on December 4, suffering extremely from distension of the abdomen, and I tapped her to give some temporary relief. She had been tapped three times before her admission here, and after one of the tappings had suffered from high fever, with double pneumonia. After a pailful of fluid had been removed from one large cyst, I found some semi-solid masses adherent high up under the right false ribs; the dulness on percussion over the cyst being continuous with the liver-dulness. But the uterus and pelvis were free, and it was arranged that I should perform ovariotomy in a few days. For three days she felt much better. On the fourth day she complained of headache and giddiness; and on the morning of the fifth day after the tapping, I found the temperature had rised to 103·2°; at night it was 103·6°. This temperature was maintained on the next day. The respirations rose to 40 in the minute, and the pulse became intermitting every tenth or twelfth beat. I had no doubt whatever that inflammation of the cyst had followed the tapping, and that the only means of saving the girl's life was to remove the cyst. But the operation was a formidable one in so fragile a girl, debilitated by previous pneumonia, and actually in a state of high fever, the temperature ranging day after day from about 102° in the morning to between 104° and 105° at night. I hardly know a more painful position in which a Surgeon can be placed. He sees a patient being killed by a tumour which he knows he can remove, and yet he fears that the removal can only hasten death, unless some change which can hardly be expected in the general condition of the patient place her in a more favourable state for undergoing a great shock, and repairing the damage done by the incision and the separation of extensive adhesions. If he operate too soon, or if he wait too long, the patient is lost.

I was prepared in this case to operate on very slight encouragement from improvement in the symptoms, but they continued to be very unsatisfactory. On the eighth and ninth days after the tapping the girl was frequently sick. She had bad headache. The skin was hot and dry; the tongue dry and hard; and there was constant short dry cough, with difficult expectoration of viscid mucus. The temperature ranged from 103° to 104°; the pulse 120 to 136; the respirations 36 to 40; and wherever the respiratory murmur could be heard in both lungs, it was accompanied by crepitation. The skin failed in its cooling function, and the bronchial effusion was, I suppose, an attempt to supplement the defective cutaneous exhalation. Reading Dr. Wilson Fox's admirable essay on "Hyperpyrexia," but not daring to try immersion of the body in cold water, I began a system of sponging the whole body with cold water every two hours, and placing the head on an indiarubber cushion filled with iced water. When we began, the temperature was 104°. It was twelve hours before it fell to 103·6°. In four hours more it was 102·8°; and in twenty-four hours after beginning the sponging and cold pillow it was 102°, or 2° lower. It took twenty-four hours more before it fell to 101°; but on the third day it was down to 100·4°. Then we gave up sponging, as the bowels acted three times; but at night the temperature rose again to 102·8°, and the pulse to 132, and respiration to 40. Then the sponging was resumed. In four hours the temperature fell to 102°, and in four hours more to 101·6°. The next day we gained another degree, the temperature at night being 100·6°; but the pulse was 130, and the respiration 44. The day after, the temperature ranged from 101° to 100·4°. and the pulse was 120. Next day we had a decided gain; the pulse was 108, and the temperature 100°, so we decided to remove the cyst without more delay—not without fear, however, that the patient might not live through the operation. I operated at nine in the morning of the seventeenth day after the tapping. The temperature was 99·6°. Expecting a good deal of pus to be in the cyst, I opened it where there were adhesions, and pressed out thirteen pints of purulent fluid before I separated any adhesions or opened the peritoneal cavity. Then some extensive adhesions were easily separated, and a large cyst removed. The pedicle was long, and was fixed by a clamp outside the abdomen. In an hour the thermometer only marked 98·6°; in two hours 98·4°—a fall of 1·2° within three hours after the operation. Then some reaction set in, and we had a rise to 99·8° in the afternoon, and 100·4° at night. During the next three days we had only a range of 1°—99·4° to 100·4°—the pulse falling to 108 and the respiration to 30. On the seventh day after operation the pulse was down to 100, and the temperature to 99·4°. On the eighth day the normal temperature was attained, and the next day, after some return of sickness, it was as low as 97·2°. Since then we have had a recurrence of the catamenia, a normal temperature, and a gradual recovery in appetite and strength. You see how bright and cheerful she looks now. I doubt whether anybody who saw her three weeks ago would recognise her.

I have seen other cases where high fever, due to the presence of purulent or fetid fluid or gas in an ovarian cyst after tapping, has immediately subsided after the removal of the cyst. About a year ago I saw a lady, 58 years of age, with Dr. Webb. of Woburn-place, who, between October, 1869, and January, 1871, had been tapped eight times. After the last tapping, a fortnight before I saw her, she suffered from severe abdominal pain and tenderness, followed by incessant vomiting and rapid increase in size. Here are some of Dr. Webb's notes:—"January 24: Morning temperature, 99·4°; evening, 101·2°. Pulse 120. Stomach rejects everything. Urine loaded with lithates. No albumen. January 25: Morning temperature, 99·2°; evening, 102·2°. No sleep. Constant sickness. January 26: Morning temperature, 99·2°; evening, 101·4°." On the 27th I removed the tumour. It contained thirteen pints of excessively fetid purulent fluid, and the solid portion weighed five pounds and a half. I had plenty of Condy's fluid ready in the vessel which was to receive the fluid, and every sponge was burnt as it was used. Unusually firm and extensive adhesions had to be separated. Yet, in six hours after this operation the pulse was down to 100, and the temperature to the normal standard of 98·4°. Next day it was 98·2°, and the pulse 96, and I have seldom seen a more uninterrupted recovery. There never was anything like fever-heat even once after the cyst was removed.

So with a patient on whom I operated at Oxford, in 1869, with Dr. Jackson and Mr. Briscoe. A lady, aged 47, had suffered for several years from an ovarian tumour. When the abdomen was excessively distended she had an attack of severe pain, and I tapped her in London for the first time on December 17, 1868, removing twenty-seven pints of fluid. Six days after the tapping she returned to Oxford, suffered during the journey, and, after a few days, was confined to her bed with all the symptoms of cyst-suppuration. I found her, on January 30, 1869, much emaciated, with a cadaverous aspect, high temperature, and pulse of 140. I tapped her again, and removed about ten pints of sero-purulent fluid. Some little relief followed this tapping, but after a few days the state became almost hopeless, and death was expected day after day. At length, after anxious consultations, we decided to give the patient the very poor chance of removing the suppurating cyst which was the cause of the fever, and I operated at Oxford on February 10, 1869. I so arranged that the fetid fluid in the cyst should flow at once into a vessel containing carbolic acid, and it did so but imperfectly, as the contents were too thick to pass through a tube, consisting chiefly of large flakes of purulent lymph-like clots—muco-colloid. These flakes and the fluid were excessively fetid, and weighed eleven pounds. Adhesions were separated, two vessels tied, a long pedicle secured in a clamp, and a semi-solid mass which weighed ten pounds was removed. In two hours after the operation the patient was much stronger than before it. The

(a) Delivered Wednesday, January 10, 1872.

pulse had been very feeble at 140. It became stronger, and fell to 120. The kidneys and skin began to act freely, and, although three opiates were required in succession to relieve pain, Dr. Jackson wrote the next evening, saying "there has hardly been a bad symptom; pulse 112, and of fair volume." Of course a state causing much anxiety continued for several days; but, thanks to the judicious treatment and constant care of Dr. Jackson and Mr. Briscoe, recovery was complete, and the patient has regained the most perfect health. I don't think I ever operated before or since under circumstances apparently so hopeless, and I never saw a more striking example of the subsidence of fever immediately following the removal of its cause.

In all these cases it appears undeniable that the general fever was due to the inflammation and suppuration of the cyst, or to the decomposition of the fluid contained in it. Peritonitis, even if present, had very little to do with the fever. The blood must have been altered in some way by the absorption, or the passage into some open vessel, of the contents of the cyst. But this question is one which we will examine some other day.

ORIGINAL COMMUNICATIONS.

ON PARTIAL CONVULSIVE SEIZURES, WITH PLUGGING OF CEREBRAL VEINS.

By J. HUGHLINGS-JACKSON, M.D., F.R.C.P.,

Physician to the London Hospital, and to the Hospital for the Epileptic and Paralysed.

(*Continued from page* 5.) (a)

Sequence of Spasm in Convulsive Seizures.

When a patient has an epileptic fit of great severity, it is impossible to write down a precise account of what takes place. There is little difficulty in describing its suddenness, severity, and continuance; but to observe the order in which parts are reached by the spasm is very difficult, because the spasm quickly becomes universal, and the parts affected are affected nearly contemporaneously. In cases of partial convulsions we manage better. In the preceding case many points were observed, but it will be seen that in no one fit was it possible to note the whole of the phenomena. In such cases there are three things to do. We shall illustrate by this case, putting in order the things observed in several seizures. (1) We have to note the range of the spasm—the area involved. In this case it affected the left side of the face, turned the two eyes to the left, fixed the respiratory muscles, and there was faint movement of the left arm. (2) We have to note the order in which parts are seized. In this case the order of involvement was that the mouth (all round) was first in action, then the mouth was drawn to the left, then both eyes to the left, the head to the left, then the eyelids of both sides (the left the more) closed; the thorax was affected early and the arm late. But the sequence in partial convulsions is not simple; the spasm of the part first attacked does not cease when the next part is attacked. There is a Compound Sequence. (3) The third thing to observe is the kind of spasm, whether tonic or clonic. It was scarcely practicable in this case to do more than note that it was chiefly clonic; no doubt there was a transient stage of tonic spasm.

It will be observed that in describing the spread of the spasm the muscles in action are not named. The fit is a discharge of a centre which does not represent muscles directly, but which represents them indirectly as movements. There is, however, from the distribution of nerves to muscles by anatomically recognisable nerve-trunks to the centre, a gradually increasing complexity—an increasing harmony. Hilton's observations show that even in the ultimates of the body there is incipient co-ordination—incipient harmony. No doubt the very muscles represent in the *most general* form the method of co-ordination of the highest centres. But in noting what takes place in a fit, it is better not to speak of the muscles, but to put down what movements take place. When this is done we can afterwards consider the play of the several muscles we suppose to have been directly concerned.

Just as there is an increasing harmony of movement from the muscles to the highest nerve-centres, so, no doubt, there is an increasing melody. Harmony of movements is space co-ordination—the co-ordination of simultaneous movements; melody of movements is time co-ordination—the co-ordination of movements in succession. The latter is scarcely traceable, however; but we are warranted in assuming that from the (nearly) equal and simple intervals of respiratory movements to the most unequal and intricate intervals of movements represented in the highest centres, there is a gradually increasing melody. The two kinds of co-ordination are inseparable in health, and in disease we have to note abnormal conditions of both; we have to observe not only the region affected by convulsive movements, but the intervals betwixt movements. As we observe that increase in range is from the voluntary to the automatic, it seems probable that, at the same time, the intervals of the movements developed become shorter. It is very difficult to note the latter in cases of convulsion ordinarily so called. But, using the word "convulsion" in an unusually extended sense, we observe that the convulsions from disease of the cerebral hemisphere are chiefly clonic; and that the convulsions of tetanus, which affects more automatic movements (those represented in the cerebellum?), are chiefly tonic. In tonic spasm the intervals are so short that the very "idea" of succession is lost; the intervals are indeed bridged over, and there is, in a sense, no apparent movement—as the humming-top, when in excessively rapid rotation, seems still.

In this case the lesion was not sufficiently local to enable one to conclude that fits beginning in the face show damage to any particular convolutional region. For instance, the fits may have been owing either to discharge of the grey matter of the convolutions of the temporo-sphenoidal lobe, or of the island of Reil. In most cases of convulsion beginning unilaterally the cerebral lesion is very extensive. I shall shortly, however, report a case of convulsion beginning in the left thumb, in which there was a tubercular tumour, the size of a hazel-nut, in the hinder part of *one* convolution—the third right frontal convolution. By numerous observations of this kind we may confidently expect to arrive at clearer notions on localisation of movements.

(a) In the first line of the paragraph, page 5, containing an account of the autopsy, for "left side," read "right side."

FOOT AND MOUTH DISEASE.

By J. C. GOODING, M.D.

In the autumn of 1869, when Mrs. —— was suckling an infant eight months old, and was herself drinking about one pint and a half of milk daily, she complained of soreness of the gums and of the roof of the mouth. Shortly after, the infant exhibited disinclination for the breast, crying when pressed to take it. On examining the mouth, the gums of the upper incisors were found to be swollen, red, and tender. About this time, the husband of Mrs. —— experienced soreness of the gums and palate, preventing the use of the brush; he, too, had been taking about a pint of milk daily. Tenderness of the feet on walking, but without any visible change in the appearance of the feet, being now complained of by the lady, "foot and mouth" disease suggested itself as an explanation of the phenomena I could not account for; and on inquiring of the milkman as to what he did with the milk of the diseased cows—some of which he admitted having ill with foot and mouth disease—he said, after a little equivocation, that he mixed it with that given by the healthy animals. On obtaining a supply of pure milk, and without any special treatment, the symptoms in a few days disappeared. A second child, an invalid, three years old, had no symptoms of the disease, although subsisting chiefly on milk; but this was kindly supplied by the clergyman of the parish, from his own cows.

On November 21, 1871, I was called to see an infant twelve months old; he had four upper incisors, and two lower; the upper were embedded in very swollen, red, and hot gums, and the roof of the mouth was also deeply congested. The child was somewhat feverish, but pallid and fretful. The lower gums were of natural appearance. The close resemblance of this to the other cases led at once to the diagnosis of foot and mouth disease. I directed the mother to feed the infant with Nestle's bread and milk flour alone, and to make inquiries as to the health of her milkman's cattle. On the morrow, the pint of milk which had been ordered for the infant was given to three older children. Within two hours the youngest, aged three years, was taken ill with vomiting and diarrhœa, which required Medical treatment; the second, aged seven years, with vomiting only; the eldest, aged nine, did not apparently suffer. These children were quite well

before taking the milk. The baby, in three days, had quite recovered from the mouth affection, without any treatment beyond change of food, but was irritable and restless, and required a few doses of bromide of potassium. Inquiry discovered that foot and mouth disease was prevalent among the cattle of the milkman.

In all these cases the gums of the upper incisors, and the palate immediately behind, were the first to show signs—swelling, redness, and heat—of the disease. The gums were not spongy, as in scurvy, but firm, yet bleeding slightly on brushing or when roughly touched; the roof of the mouth was corrugated and red, having the appearance produced by, and giving the sensation (as described by the gentleman) experienced on eating rank cheese. In the lady's case, the gums of the back teeth and of the lower jaw became affected subsequently, and in a slighter degree than those of the upper incisors. In neither of these cases did I observe vesicles or ulceration. The health was not appreciably affected in the adults, but the two infants—the one receiving its nourishment entirely from his mother, the other partly from his mother and partly from the cow—were fretful, pinched, and pallid, and slightly feverish.

It is obvious that an affection which is so fatal to beasts, and is conveyed by their milk to human adults, and to infants directly or through their mothers' milk, must considerably deteriorate the health. This deterioration has been very striking in two of the four cases I have seen, but has been quickly recovered from; yet one can easily imagine how fatal would be the continuance of a milk diet—so essential for infants, and so likely to be persisted in, on account of the very soreness of the mouth, which would probably soon become ulcerated—if the milk were derived from unhealthy cattle. That milkmen do mix the scanty supplies of the diseased animals with the milk given by the healthy I know; some do it, perhaps, in ignorance, but, I am sure, many knowingly and fraudulently.

I have penned my scanty experience, in response to your invitation of a few weeks ago, hoping that it may assist your recent correspondent in directing attention to the important article of infantile sustenance, the impurity of which, I believe, so often saps at the foundation the life of man.

Cheltenham.

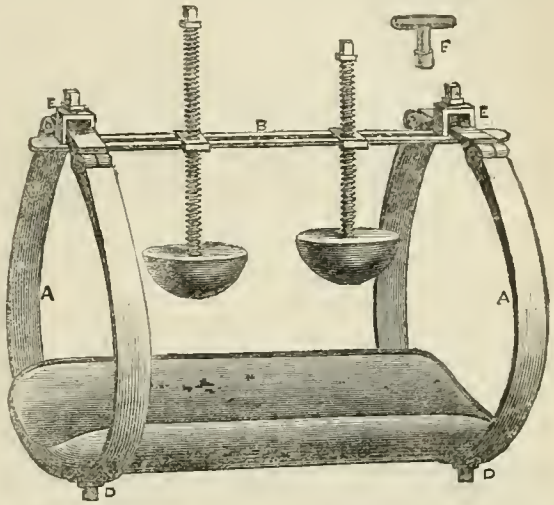
DESCRIPTION OF A DOUBLE TOURNIQUET, WITH SHIFTING PRESSURE, FOR THE TREATMENT OF POPLITEAL ANEURISM BY COMPRESSION.

By FRANCIS A. BULLEY, F.R.C.S.,
Consulting Surgeon to the Royal Berkshire Hospital, Reading.

Having on several occasions noticed the difficulty of accurately regulating the pressure upon the femoral artery in the treatment of popliteal aneurism by compression, I was induced to direct my attention to the action of the instruments commonly in use for the purpose, with a view of securing a more exact application of the required pressure, and at the same time insuring as much as possible the comfort of the patient during the occasionally protracted progress of the cure.

It may have been observed, during the treatment by this method, that the single tourniquets usually employed, with the exception, perhaps, of the ingenious invention of Dr. Carte, cannot be made to maintain a fixed and immovable position upon the thigh, without screwing down the compressing pad upon the artery so tightly as completely to obliterate its tube, and in some cases to produce agonising pain in the subjacent nerves, with great venous congestion and swelling of the limb below the point of pressure, thus frequently necessitating the removal of the instrument from the limb. I believe it is now generally admitted that the complete obstruction of the arterial stream is not only not required in the treatment of aneurism by pressure, but, on the contrary, is calculated to defeat the object for which it is designed. If, thus, no blood were allowed to pass through the sac, there could be no deposition and lamination of fibrine in its cavity; and it is only by the production of a languid, retarded stream through the conducting artery that the necessary deposit can be certainly secured. The instrument of which I have given a drawing is capable of producing a regular retardation of the arterial current, with comfort to the patient; and I may further observe that it is in accordance with Dr. Bellingham's recommendation upon the subject.(a)

The instrument is composed of two hinged steel hoops, A, united at the bottom by a padded iron plate, and above by a slotted bar, B, made movable at each end upon the horizontal portion of the hoop, to allow of its adaptation to either limb of the patient. The compressing pads are made to slide easily



along the slot in the bar by means of screw-nuts. The rings can be opened for use or removal by means of a nut and screw at D, where, also, they may be made larger or smaller, as the size of the limb may require. The whole of the nuts and screws are regulated by a key, as at F. The instrument from which the drawing was taken was made by Messrs. Weiss and Co., of the Strand.

TREATMENT OF CHOLERA BY SUBCUTANEOUS INJECTION OF MORPHINE.

By JOHN PATTERSON, M.D., L.R.C.S.,
Surgeon-Superintendent of the British Seamen's Hospital, Constantinople.

In an article in this journal on the cholera in Cairo in 1865, I expressed regret at not having tried the subcutaneous injection of medicines, having special reference to quinine. A recent severe epidemic in parts of this city and at Hasskieu, a village on the Golden Horn, the residence of a large English colony, has given me an opportunity of trying the effect of the subcutaneous injection of morphine on a sufficiently large scale to judge of its value. The first cases were treated by the usual remedies; everything rational was tried, and with the usual want of success. Completely disheartened at the inutility of treatment, I went prepared with the instruments and morphine, and, after consultation with my colleague, Dr. Werry, determined to give it a trial. A most unpromising case was selected. The man had been previously suffering from inflammation of the liver, was in deep collapse, pulseless, with rice-water purging, severe vomiting, and cramps. I injected a quarter of a grain of acetate of morphine. The result was beyond our expectations. In a quarter of an hour the cramps and vomiting ceased, the patient fell asleep, the skin gradually became warm and moist, the pulse returned. In two hours he awoke, and said he felt much better. The injection was repeated; he again slept for three hours. The reaction was perfect. He lived three weeks, and sank from typhoid exhaustion, as much produced by his old liver complaint as from the reactionary fever. The same good results followed in almost every case in which it was tried. In ordinary cases one or two injections of from one-quarter to one-half of a grain sufficed. In a few cases three injections were given, and only twice have I had occasion to give four. It was given even to very young children in doses proportioned to their age and condition. I speak more of well-

(a) "Compression by two or more instruments, one of which is alternately relaxed, is much more effectual than any single instrument, and in many cases the pressure can be maintained by the patient himself."—(Dr. Bellingham on the "Treatment of Aneurism," Corollary 5.)

marked cases. In the milder form, where the purging, vomiting, and cramps were severe, and collapse just commencing, we never wasted time on other treatment. An injection of a quarter of a grain was given, perfect quite enjoined, and bottles of hot water placed in the bed. The patient fell asleep and, as a rule, awoke nearly well. Many cases were thus nipped in the bud. I do not, of course, maintain that this treatment is a specific against cholera; I only claim for it that its action is more decided than any other treatment I have seen or practised, and that in the race against death we gain time for further treatment when it is necessary. It is long since I lost hope of the ordinary treatment influencing much the course of the disease, and, after treating more than a thousand cases at various times of epidemic, I am glad to report that this has really been of great service. My colleague, Dr. Werry, speaks equally favourably of the results obtained in his practice. I regret that want of time prevents me at present from giving the cases in detail; but the subjoined table gives at a glance the main results:—

	Number of Cases.	Recovered.	Dead.
Treated in the usual manner .	10	1	9
Treated by morphine injections	42	22	20
Total . .	52	23	29

But of the cases treated by injection, 8 were perfectly helpless from the first, being *in articulo mortis*, 1 had severe liver complaint, and 1 was far advanced in consumption; so that, in reality, we had 32 cases where the treatment had a fair chance, reducing the mortality to 10 in 32; and of these 10, 1 was 60 years of age, 1 within a few days of her confinement, and 3 hard drinkers.

In reference to the subject of cholera, I may here state that I am engaged in a series of experiments on animals, the result of which I hope soon to communicate. So far I have subjected dogs to the action of cholera-matter from the human subject. Injections under the skin, into the rectum, and feeding them with food sprinkled freely with cholera dejections have given negative results.

Constantinople.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

GUY'S HOSPITAL.

COMPOUND DISLOCATION OF HIP-JOINT, THE BONE THRUST THROUGH THE SKIN.

(Post-mortem Report, by Dr. MOXON.)

A RAILWAY porter was closing a door, and was knocked down by the train violently. Further particulars of the accident could not be certainly traced, as the accounts differed. One said that he got between the train and the platform. Another denied this, and said that he was doubled up in some indescribable way. It could not be learned how much blood he had lost; it was said a great deal. He was brought to Guy's Hospital, and died very quickly after admission. It was observed that he was bleeding from a wound in the back of the perineum, and that his left hip was dislocated. At the post-mortem examination by Dr. Moxon, a very singular injury was found. The left lower extremity was much swollen and discoloured throughout its whole extent. The position of the limb was that of dislocation of femur on dorsum ilii. When the body was on its face no wound was seen until the left great gluteal fold was forcibly lifted to expose the anal region. Then a large irregular rent in the skin appeared, its position corresponding to the junction of the left sacro-sciatic ligament with the tuber ischii. On passing three or four fingers into this hole a way was found through a pulp of torn muscles and blood-clot, till the fingers rested on the naked head of the thigh-bone; further dissection showed the gluteal muscles much torn up and infiltrated with blood. The head of the thigh-bone lay half an inch outside the great sciatic nerve, free under the remains of the glutei. It had escaped through the muscles immediately around the joint by passing between the quadratus femoris and the obturator internus. A portion of the head of the bone remained in the hip-joint, attached by the round ligament, so that fracture as well as dislocation had occurred. Evidently, on the displacement of the head of the bone, some violent force, taking advantage of the leverage the limb afforded, had forced the head of the femur to plough its way among muscles, the thigh being flexed at the same moment that the bone was carried backward, and whilst it pivoted on the side of the pelvis; none but very enormous violence could effect such a terrible injury. Besides a scalp wound there was nothing else wrong discoverable. Death was attributed to hæmorrhage and shock.

ST. MARY'S HOSPITAL.

VERY LARGE MASSES OF WARTY GROWTHS ON LABIA MAJORA—REMOVAL BY KNIFE.

(Under the care of Mr. GASCOYEN.)

AT the operations at this Hospital, on a recent occasion, we had the opportunity of seeing the largest warty growths on the external genitals of a young woman we have ever witnessed. The verrucæ presented the appearance of two large pendulous cauliflower- or cock's-comb-like tumours on each side of the vaginal aperture, in the position of the labia majora. Each lateral portion was as large as two closed fists, and the whole hung down between the thighs in one bunch much bigger than a fœtal head. The surface of each was red and coated with scanty offensive secretion and a thin layer of cuticle. Besides the two large masses, there were several small condylomatous growths upon the skin surrounding.

The patient being under chloroform, and assistants at hand to press upon the neighbouring parts to prevent hæmorrhage, Mr. Gascoyen, having put the right lateral mass on stretch by seizing it with his left hand, excised the whole with an amputating knife. The course of the knife being well followed by the fingers of his assistants, very little blood was lost, though several large vessels required ligaturing. The edges of the wound were brought together by means of five or six wire sutures. Mr. Gascoyen then proceeded to remove the mass on the left side, and thinking the écraseur would cause less bleeding than had followed the use of the knife, he attempted first with a strong twisted wire, and afterwards with a chain écraseur; but the resistance offered by the base of the huge mass required such force to overcome it, that the attempts were unsuccessful, through the noose of each instrument breaking. The amputating knife, therefore, had again to be resorted to, and exactly the same course was taken on this as on the right side. Afterwards the small condylomata were snipped off with the scissors, a pad of cotton-wool laid over the perineum, and the thighs kept together by a few turns of a bandage.

In his remarks upon the case, Mr. Gascoyen stated that the patient had been for several months suffering from a discharge from the vagina, and that this, being of an acrid acid character, had so irritated the parts over which it passed that the papillæ had been stimulated to hypertrophy to the remarkable extent witnessed. He warned the students not to be deterred from the removal of similar growths from the labia for fear of the mutilation caused, as the reparative power of the parts was so considerable that he would undertake to say that in a short time his patient would soon present but little trace of the operation under which she had gone, even though the parts removed were so large.

CUTANEO-SUBCUTANEOUS NÆVUS IN MASTOID REGION OF AN INFANT—OPERATION BY LIGATURE.

(Under the care of Mr. HAYNES WALTON.)

This was a circular, somewhat prominent nævus in the right mastoid region, which not only involved the skin, but extended deeply into the subcutaneous tissue, and was supplied by branches of the occipital and posterior auricular arteries. Mr. Walton remarked that the best mode of treating such nævi was by the ligature, and the best form of ligature was, he thought, that adopted by him in this case. Having passed a nævus needle, threaded, across the base of the tumour, he withdrew the needle from the double ligature, which he then divided. He next threaded the needle with one of the divided ends, and passed it beneath the base of the nævus, in an axis at right angles to the direction first taken; he then withdrew this end from the eye, and passed the other divided end of the ligature through it before withdrawing the needle; finally, these ends were firmly tied, with the ends hanging from the spot first punctured. In this way, as Mr. Walton afterwards illustrated upon a towel, a double cross is formed beneath the nævus, and on tying the free extremities together the parts are pulled up

and constricted in a most thorough manner. Mr. Walton advises that each of the ligatures be divided about the third day, and that they be not left to slough out, as so much of the tissues would thus be destroyed, owing to the contraction brought to bear upon them by this form of ligature. He has adopted this plan in a large number of cases, and with such success that he has no hesitation in strongly recommending it.

OPERATION FOR DROPPED EYELID.

Mr. Walton also operated upon the eyelid of a young girl to remedy dropped lid. He removed an elongated, oval-shaped piece of skin from the eyelid, near the margin of the orbit, and away from the free margin of the lid, and then brought the cut edges together by fine sutures. In this way the skin over the lower part of the lid would be brought under the influence of the orbicularis musele, and the deformity got rid of. Mr. Walton strongly advises that in these operations the skin should be dissected off with the scalpel, and not cut away with the scissors. By careful dissection with the knife, one can make quite sure of not injuring the orbicularis muscle—a matter of all importance. Another advantage is that no scar follows the use of the knife, though sometimes an irregular mark is left after using the scissors. Suppuration is of the rarest occurrence, the wounds nearly always healing by first intention. In many cases an arched condition of eyebrow, owing to attempts made to raise the lid, accompanies this deformity, but in this patient the dropped state of the lid had not been of sufficiently long duration to give rise to this.

Mr. Haynes Walton also showed a patient upon whom he had performed Iridectomy for a conical condition of cornea. Previous to the operation the man was nearly blind (having cataract on the other side), but since the artificial pupil had been made a fair amount of vision has been permitted him. He can now see his way about, and count the number of fingers held before him.

ST. PETER'S HOSPITAL.

STONE IN THE BLADDER—LITHOTRITY—RECOVERY.

(Under the care of Mr. TEEVAN.)

J. B., AGED 17, by trade a baker, was admitted into the Hospital on June 3, 1870. The lad is stout and well made, but of pale complexion, probably owing to his occupation. Patient stated that as long as he can remember he had suffered from pain at the end of the penis during micturition, lasting for a few minutes. For a long time his urine has been thick, and he has passed blood on three different occasions. Is unable to ride in any vehicle, on account of the pain caused by the jolting; does not experience much annoyance from increased frequency of micturition. Patient's paternal grandfather suffered from stone. Mr. Teevan sounded the patient, and detected a small calculus, which gave a very clear click when struck.

On June 4 Mr. Teevan crushed the stone, which was of oxalate of lime, and about the size of a small hazel-nut. The patient passed some *débris* the same evening, and on the following day he left the Hospital, as he was quite free from pain.

12th.—The patient came to the Hospital to-day, saying he had remained free from pain, and that his urine was quite clear. Passed no fragments of stone since the day after the operation.

20th.—Remains perfectly well. Has been at work ever since he left the Hospital.

Mr. Teevan remarked that this was the youngest patient on whom he had performed lithotrity, which was clearly indicated in this instance, as the stone was small, and the boy's urethra very capacious.

STONE IN THE BLADDER—LITHOTRITY—SUDDEN DEATH FROM HEART DISEASE.

(Under the care of Mr. TEEVAN.)

W. S., aged 70, coach trimmer, was admitted into the Hospital on December 30, 1868. Patient is of spare form, very nervous, and of very dark complexion. Two years ago first began to pass small quantities of "red gravel," and shortly afterwards, on one occasion only, a little blood. During all the period suffered much pain during and after the act of micturition. At the present time he is much troubled with frequent calls to urinate during the day, but at night has only to rise twice. Urine only occasionally thick. Mr. Teevan examined the patient with a very short-beaked sound, and detected several small calculi lying behind an enlarged prostate. Patient was put on a mixture of chlorate of potash and henbane.

January 4, 1869.—To-day, at 3 p.m., Mr. Teevan performed lithotrity. The lithotrite was filled with uric acid *débris*.

6th.—A few pieces of stone have come away. Patient's health is good.

11th.—Crushed again to-day; much *débris* came away. The following day a little blood passed, but no stone.

19th.—Another crushing; very little stone came away.

25th.—Crushed to-day; much *débris* came away.

26th.—A great deal of stone has passed since yesterday. Health good.

29th.—Suffers a good deal from straining to expel fragments. Ordered quarter of a grain of morphia.

February 2.—To-day, at 3 p.m., whilst patient was kneeling on bed and urinating with effort, he suddenly became faint, and died a few minutes afterwards.

3rd.—*Post-mortem Examination*.—The mitral valve was found so diseased with calcareous deposit that the auriculo-ventricular orifice would only admit a quill pen. The coronary arteries were similarly affected. The right kidney was little more than a large sac containing several ounces of urine, and the right ureter was greatly dilated. The left kidney was apparently healthy. The bladder was much thickened, but the lining mucous membrane was perfectly free from the slightest ulceration or denudation. The fragments of stone found in the bladder showed that there had been three lithic acid calculi, each apparently about as large as an almond.

Mr. Teevan remarked that death in this case clearly arose from failure of the heart's action during an effort to expel the *débris* from the bladder during the act of micturition. The patient's health had continued good after the various operations, and there was no reason whatever to prognosticate otherwise than favourably. Lithotrity possessed many advantages over lithotomy; but the accident that occurred in this particular instance could not have happened after lithotomy.

LEEDS GENERAL INFIRMARY.

CASE OF ATHETOSIS (?).

(Under the care of Dr. CLIFFORD ALLBUTT.)

In consequence of some remarks which we made in this Journal for December 16th, on an affection described by Dr. Hammond, of New York, and called by him "athetosis," a short account has been sent to us from the Leeds Infirmary of a case which may be of the same kind, though differing somewhat in detail. The patient, Mrs. D., was only a short time under notice, and, unfortunately, no notes of her state were taken; as she had been, however, in more than one of the London Hospitals, it is hoped that her case has been accurately recorded elsewhere. She was a respectable, temperate woman, of about 55 years of age, sallow in complexion, and a good deal wasted; for some time she had been subject to spasmodic restlessness of the extremities. These movements were best marked in the hands, as was seen in Dr. Hammond's cases; like his cases, also, so in Mrs. D., the feet were rather in a state of tonic flexion, the toes being so spasmodically pointed that she was unable to walk. For this reason she was made an in-patient under Dr. Clifford Allbutt, who took great interest in her. He pointed out that the case differed much from chorea and paralysis agitans, both in the character of the movements and in their limitation to the hands and feet. Unlike Dr. Hammond's patients, however, Mrs. D.'s spasmodic movements ceased, or almost ceased, during sleep. The toes, as aforesaid, were rather in a state of tonic spasm, and forcibly pointed downwards; there were, however, frequent slight alternate movements of flexion and extension. In the hands the movements consisted chiefly of a curious alternation between abduction and adduction, the fingers being quickly agitated in a lateral plane. The district of the ulnar nerve was agitated for the most part in alternation with the rest of the hand, so that many of the movements were of a spreading and closing character. There was, however, much irregularity in all this, and semi-flexions and extensions often occurred among the other agitations. The will had but a slight and transient effect in commanding the hands, and the patient could never succeed in setting them at rest even for a second. The urine was normal, and the bodily functions in fair order. During her short stay the continuous galvanic current was used, but with little or no benefit.

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Medical Times and Gazette.

SATURDAY, JANUARY 27, 1872.

A JURY OF MATRONS.

The scene that occurred at the Old Bailey, on the occasion of the conviction and sentence to death of Christiana Edmunds on the 16th inst., was truly ghastly, and almost unexampled in our criminal annals. An eye-witness has described how the old and dingy Court was crowded during the reply of Sergeant Ballantine, and the summing-up of Baron Martin, whilst the prisoner sat unmoved and apparently unconcerned; the female warder who sat in the dock with her looking far more wretched, and exhibiting far more emotion than she. During the delivery of the verdict by the jury, the bonnetless woman in the dock, neatly dressed, and with her hair carefully and even coquettishly arranged, neither moved a muscle nor changed colour in the least degree; and so, too, whilst the dread sentence of death and execution was being passed, except that before this was done her voice was heard—clear, musical, and steady—amidst the profound stillness of the spectators, expressing her wish to be tried upon the other charges that had been brought against her. After the solemn "Amen" of the Newgate chaplain at the conclusion of the sentence, an extraordinary scene occurred—one but seldom seen, and the like of which we hope may never be seen again. When a woman is capitally convicted, and pleads her pregnancy, though this is no cause to stay the judgment, yet it is to respite the execution till she be delivered: this is a mercy dictated by the law of nature in favour of the offspring. The Roman law directs, with the same humanity as our own—"*Quod prægnantis mulieris damnatæ pœna differatur, quoad pariat*"—a doctrine which has also prevailed in England as early as the first memorials of our land will reach. The practice did not originate, as has been supposed, from the horror excited by the bloody proceedings in the reign of Queen Mary, when a pregnant woman was burnt in the island of Guernsey, and when, through the violence of the flame (so the story runs), the child sprang forth at the stake, and was preserved by the bystanders. In case this plea be made in stay of execution, the judge is required to direct a jury of twelve matrons or discreet women to inquire into the alleged fact. If they bring in a verdict of *quick* with child, execution is stayed till she is either delivered or proves by the lapse of time not to have been with child at all. Humanity towards the mother forms no part of this proceeding; for if she once has had the benefit of this reprieve, and been delivered, and afterwards becomes pregnant again, she is not entitled to the benefit of a further respite, for she may now be executed before the child is quick in the womb. It is usual to interrogate the convict upon the point of her pregnancy at the time of sentence, and before the date is fixed for execution. There was a profound sensation among the spectators when, in this case, the gaoler said aloud—"She says she is, my lord." The Sheriff was directed forthwith to empanel a jury of matrons, and in obedience to this injunction a raid was made by the Under-Sheriffs upon the matrons present in Court. A dozen respectably dressed women were marched into the jury-box and sworn, with a forewoman of course. They then retired with the prisoner into the judges' parlour to consider their verdict. The result is well known; the prisoner was not quick with child. In the case of Christiana Edmunds, who had been five months in prison, and in whom the catamenia, it is stated, appeared within three weeks of the trial, any other result could hardly have been expected; and yet the jury—to their credit, we think—appear to have had considerable difficulty in satisfying themselves of the fact. Half an hour after their retirement a messenger came into Court, and an inquiry was made for an accoucheur. One was found—Mr. J. Beresford Ryley, of Woolwich—and he was directed to assist the matrons. Some further delay occurred. It is rumoured that a policeman was sent for a stethoscope, but brought a telescope instead. At length the jury returned, and the brief verdict "Not" was returned. Mr. Ryley has stated that it was after his examination of the convict, when the last frail straw on which she leant gave way, that the awful peril of her situation appeared to dawn upon her for the first time: her despair was terrible to behold, and she looked from one to another of her unwilling and weeping judges in mute, unspeakable woe.

It is high time that this absurd trial by a jury of matrons were done away with. The value of their verdict upon such matters, unassisted by Medical advice, may be estimated from the facts of such cases as those related by Dr. Taylor and other Medical jurists. In the year 1847, at this same Court, Mary Ann Hunt, under sentence of death, was adjudged by a jury of matrons "Not quick with child," and yet, three months after, she gave birth to a full-grown child. In Wright's case, at the Norwich Assizes, in 1832, a similar verdict was returned; and in this case, also, the woman would have been executed, had not several Medical men represented to the presiding judge that the method taken by the jury to determine quickening was insufficient. Instances of errors committed might be multiplied, but those who are curious about them may refer to the ordinary text-books.

The period of quickening is selected as that after which the convict may be respited, because it was formerly the opinion of Medical men—and is even now the opinion of the vulgar—that the fœtus only receives life when the woman quickens. Quickening is now known to be such an extremely uncertain sign, occurring at such varying periods during the pregnant state, that the audible pulsation of the fœtal heart is invariably substituted, and this can be ascertained by none other than a Medical examination. Wisely, in the Edmunds case, did the jury seek Medical assistance. Mr. Ryley had no difficulty in deciding, by a brief application of the stethoscope, that the woman was not quick with a living child; and yet such of the matrons—many of whom, he states, were of good social position and unusual intelligence—as had come to any conclusion on the subject under consideration, had arrived thereat on such insufficient grounds as to render their opinion utterly valueless. The continuance of the present law is, then, we think, a scandal and a disgrace to our system of judicature. Juries of matrons, where Medical assistance has not been sought, have fallen into grievous errors; nor have they erred, as a rule, on the side of mercy. The fact that a woman is pregnant, much more the fact that the pulsations of the fœtal heart are audible, or the negatives of these, can only be made out by competent Medical examination. Juries of matrons to try these questions ought forthwith to be abolished.

Other countries are far ahead of us in this matter. In the State of New York a jury of six Physicians is called upon to try the question of pregnancy in capital cases. In France the bare proof of pregnancy, as determined by Medical opinion, is all that is required to stay execution. An excellent opportunity is now offered for new legislation on this subject. It is rare that a jury of matrons is called upon to decide the question of pregnancy. We do not wish to see another instance of it.

ARMY MEDICAL OFFICERS AND SICK LEAVE.

We have on more than one occasion given public expression to the dissatisfaction and sense of injustice which prevail among the Medical officers of the army at the inequality of their lot when suffering from ill-health, as contrasted with that of officers of the purely military branches of the service. A Medical officer, according to the present regulations of the service, must, in the event of ill-health, either be fit for service at home or abroad at the expiration of six months' leave on Medical certificate, or be relegated to the limbo of half-pay until such time as he may succeed in convincing himself or—still more difficult—a Medical Board that he has become fit again to face the malarious influences of Peshawur, the West Indies, or the Gold Coast. His military comrade, who, having gone through a similar ordeal of sunstroke, dysentery, or hepatitis, may have come home with the unfortunate Doctor in the same ship, and appeared before the same Medical Board in Whitehall, obtains off-hand, as the first instalment of the period of leave necessary to restore him to health and the discharge of his duty, the six months' leave which is grudgingly dealt out to the Medical sufferer as the ultimatum between him and half-pay. On the expiration of his first six months, the military officer again appears before the Medical Board, and obtains an extension, and may do so once or twice more until he has quite recovered his health, or until it has become evident that a residence of eighteen months or two years at home having failed to establish his health, he must be put on half-pay, and replaced by an efficient officer.

Now, we maintain that such inequality of treatment is not only unjust, but cruel, to the Medical officer. As a rule, he is exposed more directly and continuously, in the discharge of his Professional duties, to the injurious effects of climate than is the military officer. During an epidemic, or more than usually unhealthy season, he has to endure anxieties and undergo an increase of work, from which the military officer is comparatively, if not absolutely, free. We know of nothing in the constitution of a Medical officer different from that of another man, to render it more elastic and resilient in its recovery from disease; on the contrary, as we have shown, the peculiar nature of his duties renders him liable to depressing influences over and above those of the ordinary effects of trying climates. We repeat, therefore, that the position of Medical officers of the army as regards sick leave is anomalous and unjust when compared with that of officers of the military branch.

The regulation to which we object was introduced, we believe, during the *régime* of a now deceased Director-General, whose administration of his department we criticised so frequently during his lifetime that we need not now resume the subject further than to say that by the establishment and continued existence of the rule referred to, an unfair blow was, and is still, inflicted on many deserving Medical officers, and that the Medical Department of the Army generally has suffered from it very seriously in the estimation of its members, who, of course, have many opportunities of influencing favourably or otherwise the feelings of intending candidates.

The Indian Government makes no such invidious distinction between military and Medical officers in its own employ. An Indian Medical officer in bad health has as good a chance of recovering his efficiency by a residence at home—of eighteen months or two years—as is afforded to the military officer. Wise in its generation, however, the Indian Government of course adopts towards Medical officers of the British service, who may have lost their health in India, the same rule as is applied to them by the home authorities. A regimental or staff Medical officer who is reported by a Medical Board in India as unlikely to be fit to return to duty in that country at the expiration of six months from the date of his leaving India on Medical certificate, must be replaced by an efficient officer from home. This rule bears with special hardship upon regimental Medical officers, who, under such circumstances, lose their regimental appointments after having incurred the expense of uniform and other charges inseparable from duty with a regiment. Granting that the fixed establishment of Medical officers of the British service must be maintained in India, why should not a staff Medical officer be appointed temporarily to a regiment until the Surgeon or Assistant-Surgeon sent home in bad health be fit to resume his duty in India, or have had an amount of sick leave sufficient to establish the fact that he is permanently unfit for service or not likely to become fit within any reasonable time? So long as the regimental Medical staff system continues to exist, regimental Medical officers serving in India are liable to this hardship.

It is not only to the executive officers of the British Medical service that the Indian Government applies this rule. By a recent order, we understand it has been extended to the administrative ranks, so that an Inspector or Deputy Inspector-General of Hospitals of the British Medical Service, returning from India in bad health, on the recommendation of a Medical Board, must either be fit to return to that country at the expiration of six months from the date of embarkation in India—this, be it observed, giving a residence of exactly four months at home for the recovery of health—or he must be replaced by another officer of the same rank from home. Now this, it appears to us, is unfair both to the sick officer and to the senior Medical officers of lower grade remaining in India. It is well known that a Surgeon-Major, temporarily performing in India the duties of a Deputy Inspector-General, is entitled to a considerable increase of pay and allowances. Why should not one be allowed to officiate in the higher rank during the absence at home of the original occupant of the post for the recovery of his health? It can hardly be maintained that a Surgeon-Major is unfit to perform temporarily the duties of an office to which, in the ordinary course of events, there is some likelihood of his being promoted. The opportunity of doing so would be a qualification for promotion to the higher grade; he would also derive pecuniary benefit, and the officer whose place he had filled might, on the recovery of his health, complete his term of Indian service, and the modest amount of savings to which he may, through a long career, have been looking forward as the means of support and education for his family.

We hope yet to see all such galling and injurious anomalies removed from the position of Medical officers of the army. The person who succeeds in abolishing them will deserve well of the Profession and the public. The authorities of the War and India Offices, in their administration of Medical affairs, should bear in mind that efficiency and content are inseparable elements in the constitution of public departments; and that in all questions in which health and pocket are concerned, notwithstanding all efforts to establish an artificial and unjust distinction, Medical officers are in all respects as other men are.

THE WEEK.

TOPICS OF THE DAY.

Tuesday's *Gazette* announced that the Queen has been graciously pleased to give orders for the appointment of Sir William Jenner, Bart., M.D., one of the Physicians-in-Ordinary to her Majesty, to be an Ordinary Member of the Civil Division

of the Second Class, or Knights Commanders of the Most Honourable Order of the Bath. And that the Queen has been pleased to direct Letters Patent to be passed under the Great Seal granting the dignity of a Baronet of the United Kingdom of Great Britain and Ireland unto William Withey Gull, of Brook-street, in the parish of St. George, Hanover-square, in the county of Middlesex, M.D., and the heirs male of his body lawfully begotten. We heartily congratulate Sir William Jenner and Sir William Gull upon the complete success which has rewarded the exercise of their skill in the management of the Prince's illness, and upon the great service they have thereby rendered to the Queen and nation. Last week we expressed our opinion that the honours now announced were in no degree an adequate reward for those services, and we know that this opinion is shared by a very large and influential part of the Medical Profession.

The commutation of Mr. Watson's sentence to penal servitude for life, and the respite of Christiana Edmunds on account of unsoundness of mind, were, we think, the only possible settlements of their respective cases. The recommendation of the jury in Mr. Watson's case could not have been neglected had there not been strong reasons in the history and circumstances of the case for the exercise of the prerogative of mercy. In Miss Edmunds's case, it is announced that in consequence of an opinion expressed by Baron Martin, who tried her, that her mental condition should be examined by competent Medical men, Sir William Gull and Dr. Orange (the Superintendent of the Broadmoor Criminal Lunatic Asylum) have visited her, and, after an interview of four hours' duration, have certified to Mr. Bruce that she is of unsound mind. On this she has been respited, and will be confined as a criminal lunatic in Broadmoor Asylum. We have said that this was the only possible settlement of her case, and we think so for the following reasons:—First, because, although she was not insane according to legal definition, she was proved to have been the subject of marked hysteria, to have inherited a strong family predisposition to insanity; and the very character of her criminal career—its hideous recklessness—was at once sufficient to suggest that it was not that of a sane person. Yet, although of unsound mind, she was not legally insane, for there cannot be a doubt that she knew, in a certain sense, right from wrong. Under these circumstances the Profession and the public will acquiesce in the result. But at the same time it is in another sense a very unsatisfactory one. The law is set aside, a solemn legal process is annulled, because a Medical opinion has been given by two Physicians in exact accordance with that which, when advanced by other Physicians, was sneered at by the counsel for the prosecution, and pooh-poohed by the judge who tried the criminal. The fact is, that the legal definition of insanity is not the true one, and, however lawyers may uphold it in theory, it is one which in the present day they cannot conscientiously put into practice. Persons indubitably mad in every asylum in England know the difference between right and wrong, and will abstain from doing the latter when under supervision, or from fear of punishment. The only way in which scandals of this kind can be avoided—unless, indeed, some new legal definition of insanity can be arrived at which will provide for such cases (and of this there is little hope)—is by the appointment of Medical assessors in our courts of justice, who may be called in by the judge in doubtful cases to examine and report on them, who, being of high scientific standing, and being free from all possible bias, may claim and receive the confidence of the Government and the public.

The controversy on Londesborough Lodge continues. Professor Corfield, an undoubted authority on all that relates to sewers and sewerage, has examined the house, and has written a long statement as to its sanitary condition, which appeared in the *Times* of Monday last. Our space will not permit us to analyse it at length, but we may state that his observations certainly do not agree with the reports furnished by special correspondents and commissions who obtained their information from "the plumber's man." Whilst he admits that there are certain defects in the sewerage arrangements of Londesborough Lodge, he thinks that the ideas afloat on the subject are many of them incorrect and exaggerated. In another column we publish a letter from Mr. Dale, of Scarborough, on the same subject, which has reference to some statements that appeared in a Medical contemporary. Although the convalescence of the Prince of Wales has turned the thoughts of the general public into other channels, the condition of Londesborough Lodge, and the origin of the fever which attacked so many of its inmates, is still a matter of vital interest on scientific and social grounds. It may be that we must look, not to the sewerage of the house, but to some accidental water-contamination for the cause of the recent national calamity.

A grave charge has been brought against the Metropolitan Board of Works. The Streets Committee of the City has reported that, notwithstanding the enormous sums spent on the main drainage scheme and purification of the Thames, no less than 562 sewers directly or indirectly communicate with the river within the limits of the City alone.

Dr. Paget, the President of the General Medical Council, has been appointed by Government to the Regius Professorship of Physic in the University of Cambridge. Dr. Paget is the sixteenth Professor. The chair was founded by Henry VIII.

PROCEEDINGS OF THE ROYAL COLLEGE OF SURGEONS.

THE following is an abstract of the unconfirmed minutes of the last meeting of the Council:—The Library Committee was requested to report on the state of the College collection of engravings and other portraits, and to offer any recommendations as to its exhibition to visitors to the library. The opinion, dated 28th ult., of Council in favour of the draft scheme for an Examining Board for England was read, and the suggestion of the Joint Committee of the Colleges of Physicians and Surgeons, that such opinion did not necessitate any modifications in the scheme, was adopted by the Council; and the Committee was authorised to take the necessary steps to carry out the scheme, and the President and Vice-Presidents were empowered to communicate to the General Medical Council the concurrence of the Council in the scheme. The President stated that the nomination of an examiner, in the vacancy occasioned by Mr. Cock's expiration of office, would take place in February, and that an examiner would be elected at a special meeting of the Council in March, and that the vacancy created in the Dental Board, by the same gentleman ceasing to be a member of the Court of Examiners, would be filled up at the next ordinary meeting of the Council. A letter of the 20th ult., from the Bishop of Toronto, for the recognition of the Medical Department (lately re-established) of the University of Trinity College, Toronto, was read, and the Council resolved to recognise the same. Mr. Erichsen, in pursuance of his notice of the 14th ult., moved—"That on the occurrence of a vacancy in any Professorship or Lectureship in this College, with the exception of that of Hunterian Orator, due notice be given of such vacancy by advertisement in such journals and at such times as the President shall decide; and that candidates be invited to apply for the vacancy." And the motion having been seconded by Mr. Spencer Smith, and the votes of the Council having been taken thereon, a majority was in favour thereof. Sir James Paget, in pursuance of his notice on the 14th ult., moved—"That it is desirable that, before proceeding to any nomination of Members for election to the Fellowship under the 5th clause of the Charter of 1852, the Council should determine the conditions under which the

election should take place." And the motion having been seconded by Sir William Fergusson, and the votes of the Council taken thereon, the same was carried *nem. con.* Moved by Sir James Paget, Bart., and seconded by Sir William Fergusson, Bart.—"That the exercise of the power granted to the Council by Clause 5 of the Charter of 1852 be limited to the election of Members of not less than twenty years' standing, distinguished in science or literature, and not engaged in the practice of the Surgical Profession, and of members of not less than twenty years' standing distinguished in the practice of their Profession, and presenting satisfactory evidence that, through circumstances which they could not control, they were unable to complete the course of study requisite for admission to examination for the Fellowship. Moved, as an amendment, by Mr. Hawkins, seconded by Mr. Spencer Smith—"That all the words in the foregoing motion, after the words 'Charter of 1852,' be omitted, and that the following words be inserted in lieu thereof—viz., 'be not put in force this year, in order that a Committee may be appointed to report to the Council on the conditions upon which members should be elected under the said clause.'" And the votes of the Council having been taken on the amendment, a majority was in favour thereof; there was not, therefore, any nomination of members under the 5th clause of the Charter of 1852. Mr. Simon then gave notice of the following motion at the next meeting of the Council—viz., "That, on the occurrence of a vacancy in any examinership in this College, due notice be given of such vacancy by advertisement in such journals and at such times as the President shall decide; and that candidates be invited to apply for the vacancy."

DR. ODLING'S DISCOURSE ON INDIUM AT THE ROYAL INSTITUTION.

On Friday evening, January 19, Dr. Odling gave a discourse at the Royal Institution on "Indium." It was not till the time of Lavoisier, he said, that the fact was established that the earth's crust is resolvable into a number of independent elements perfectly distinct from each other in their natures, and not capable of being changed into each other or transmuted in any way. Before the discovery of hydrogen, twenty-four of these elements were known to chemists, and since that discovery, thirty-four new substances have been added to the list at varying intervals. In the last fifty years there has been on the average one new element discovered in every four years; but the intervals are very irregular. The last discovered was indium, which was found by Messrs. Reich and Richter in the year 1863, and it is therefore time that some new element should appear. The list of elementary substances is, in all probability, capable of indefinite extension; but it is not likely that any new substance of frequent occurrence will come to our knowledge. All those substances which have been discovered within late years are of extreme rarity, and, being of little commercial value, are considered more as chemical curiosities than anything else. But though rare, it does not follow that these bodies are not widely distributed. As in the case of iodine, so in that of many others, their presence may be detected in very many bodies, but in quantities so minute that their rarity is not affected.

The last four elements which have been added to the list—viz., cæsium, rubidium, thallium, and indium—are remarkable for having been detected for the first time by means of the spectroscope. It is well known that different bodies, when heated in the colourless flame of the Bunsen burner to vaporisation, give off rays of different-coloured light. Lithium gives a red ray, barium a green, and strontium a crimson one; and when only single elements are present it is tolerably easy to decide what the element is by the appearance of the flame to the naked eye; but when there is a combination of elements it becomes necessary to use further means. A coloured screen may be used to cut off some of the rays and allow only others to pass. But the most perfect means available is the use of a prism, by which the rays are not partly absorbed and cut off as by a screen, but are sorted out and laid in order before the observer according to their different degrees of refrangibility. It was by the means of the prism that Bunsen discovered cæsium and rubidium, in the year 1859, while examining the mineral waters of Dürkheim. Having noticed some bright lines in the spectrum of the flame given off by the salts of these waters, he reduced an enormous quantity of the water, and succeeded in separating these two new alkaline substances. It is now found that they are widely distributed in exceedingly minute quantities, but cæsium has not yet been found in the ashes of any vegetable matter. They stand in almost exactly the same relation to potassium as strontium and barium do to calcium.

Thallium was the next element to be discovered. This body was first noticed by Mr. Crookes in the year 1861, while examining an impure deposit of selenium from the Harz Mountains. It is remarkable for the very beautiful green line in the spectrum of its flame. Its true position is still a matter of controversy, since it resembles silver, gold, lead, potassium, and other metals in some characteristics, but differs again from them all by other marked properties.

The last new metal is indium; this was discovered by Messrs. Reich and Richter, of Freiberg, in the year 1863, in some zinc blend or black-jack from the Harz Mountains. Its spectrum contains two lines only, of a bright indigo colour, one situated in the blue and the other in the indigo portion of the spectrum. As to colour, this metal is very white in appearance, with a tinge of bismuth colour in it. On exposure to air it tarnishes rapidly and presents an exact resemblance to tarnished lead, but differs from the lead in that the film can very easily be rubbed off with a cloth, whereas that of lead cannot. Like lead, indium is very compact, and very soft indeed, as was shown by a piece being pressed out into wire in a very short time. In weight it resembles tin. The specific gravity of tin is 7·3, indium 7·4, lead 11·9. Its fusibility is very remarkable; it may be melted in hot spermaceti at a temperature of 176° Cent.; tin can be melted at 228° Cent., and cadmium at 278° Cent. The combining ratio of indium is 38, and its atomic weight is 71·84.

The discourse was illustrated by some fine specimens of some of the rarer metals, such as tellurium, zirconium, yttrium, beryllium, lithium, selenium, and vanadic acid, etc. The spectrum of sodium was shown, and the light itself was displayed with its usual effect upon the audience. The spectra of thallium and indium were also shown by the aid of the electric light.

EXTRACTS OF MEAT FROM A PHYSIOLOGICAL POINT OF VIEW.

P. Muller (*Moniteur Scientifique*, 1871, p. 611) contributes an important memoir on this subject—important not only from the valuable *résumé* given of all that is known relative to the chemical composition of meat extracts, soups, etc., but as adding to our knowledge of the physiological effects of such extracts. The paper is divided into three chapters, the first of which treats of the fluid of muscles, soups, and extracts, stating the relative proportions of the several ingredients entering into these, and detailing the researches of Liebig and others in this field. Extracts of meat are shown to be destitute, or nearly so, of true alimentary substances (albuminoids), and to be rich in such nitrogenous substances as are incapable of acting as food. The second chapter deals with certain principles of organic origin, such as creatine, found in meat extracts; and these principles are stated from the accordant experiments of the author and Kimmerich (*Wien. Med. Wochenschrift*, 1869) not to be dynaphorics, like tea, coffee, etc. Further, the ash of extracts of meat is shown to exert a poisonous action upon animals. The concluding chapter treats of the action of potash salts upon the animal economy. Neutral phosphate of potash decomposes chloride of sodium, producing phosphate of soda and chloride of potassium; and

phosphate of soda is one of the most important salts found in blood. Carbonic acid is very much more soluble in solutions of phosphate of soda than in water or in solutions of phosphate of potash; hence, this latter cannot replace the former salt in the vital processes and in the manufacture of blood. The experiments of Bernard (Virchow's *Archiv*, xxxii.) have long since shown that so small a quantity of a potash salt as seven or eight grains, injected into the blood, exerts a toxic action on an animal, whilst many times that amount of a soda salt may be administered in the same manner with impunity. We cannot do better than translate the conclusions of M. Muller for the benefit of our readers:—

"1. Meat extracts are neither direct aliments, for they contain no albuminous matters, nor indirect aliments, for their azotised principles do not arrest disassimilation.

"2. In small quantities they may be useful, from the stimulant action of the potash salts which they contain, as these salts aid digestion and circulation.

"3. In larger doses, instead of being useful, they may have an injurious effect. Administered in the course of prolonged illnesses, when the powers are enfeebled by long abstinence, the salts of potash may exert an injurious action, more manifest in proportion to the quantity of chloride of sodium lost by the organism. Far from favouring nutrition, they may impede it—(1) by the direct action of potash salts upon the blood-globules, causing a diminished absorption of oxygen; (2) by the predominance of salts in the serum, which exert no special solvent action on carbonic acid, and do not permit the exhalation of the normal quantity of this gas, and, consequently, the introduction of oxygen.

"4. The Physician should always remember that to give these extracts alone is to keep the patient in a state of inanition."

But we must add, notwithstanding all this, they are good stimulants, and useful to bring up the flavour of poor soup.

SMALL-POX JOTTINGS.

At Carmarthen small-pox has been carrying off a victim every other week for months, and *now* the authorities are thinking of erecting a Hospital.——The disease still continues at Mold. ——At Limehouse during the past fortnight seventeen fresh cases are reported and five deaths.——Six deaths from small-pox during the four weeks ending the 6th inst. were reported to the Kennington Vestry last week.——Dr. Lankester stated to the St. James's (Westminster) Vestry on Thursday week that "a kind of outburst of small-pox had taken place, twenty-one fresh cases having been reported, most of which had been sent to the Hampstead Hospital. One death from the disease was reported on the previous day, making in all 253 cases and thirty-six deaths which had occurred in the parish since the outbreak of the epidemic. One case occurred in a child who had been vaccinated, three cases in persons who had not been vaccinated. It frequently happened that the Medical Officer knew nothing of the cases until the deaths were registered and many persons had taken the disease."——At Mile-end Old Town two deaths were registered last week from small-pox.——The Small-pox Hospital at Mounthlery, for patients in the district of the local authority, has just been opened. Though small-pox is still pretty prevalent, the worst it is hoped is past. The cases reported from the Infirmary for the week ending last Saturday were more numerous than on the previous week, thirty patients being under Hospital treatment; but the proportion of cases in private practice has been greatly reduced. The number of persons presenting themselves for vaccination and revaccination at the Dispensary has been large.——Eighty-nine cases of small-pox were admitted into the Cork Workhouse Hospital during the last week, and eighteen are under treatment in the City Fever Hospital. In consequence of the Workhouse Hospital and the Fever Hospital being full, the Guardians are about to erect a shed for the reception of fifty small-pox cases. In the South Dublin Small-pox Hospital there were remaining in the Hospital at the last weekly return 103, admitted 34, discharged 31, died 9, now remaining 97. Seven out of the nine fatal cases had no vaccine marks; twenty serious cases are at present under treatment.——Small-pox is prevalent in Sowerby-bridge and the immediate district.——At Halifax, from the 3rd to the 20th inst., sixty-five cases of small-pox have been reported. The mortality from the disease is at a comparatively low figure, only four deaths having occurred.——Small-pox is on the increase in Lurgan; a number of very bad cases have been admitted into the Workhouse. ——In the metropolis, last week, ninety-three deaths were registered from small-pox.——Of five fatal cases in Woolwich Arsenal sub-district, no less than four were unvaccinated children, aged from 2 to 6 years.——Three fresh cases of small-pox were reported last week to the Holborn District Board of Works.——Dr. Aldis, St. George's, Hanover-square, reports two cases—one a woman, aged 27, vaccinated, in the in-wards, removed to the Hospital; the other, a girl of 16 years, vaccinated, in the out-wards.——Small-pox has broken out in several parishes within the district of the Glandford Brigg Union, and stringent measures have been adopted to prevent the disease from spreading.——Small-pox having appeared at Lincoln, the Sanitary Committee of the Local Board adopted the following resolution at their last meeting: —"That, as this Committee has been unable to obtain either of the buildings they had in view for the purpose of providing a small-pox Hospital, it be hereby referred to the Local Board and the Corporation to decide on the expediency of erecting a Hospital on one of the commons, and that the Clerk do bring the subject before the next meeting of the Council."

TREATMENT OF HABITUAL DRUNKARDS.

No problem is more difficult of solution than the proper treatment of habitual drunkards. The liberty of the subject is held so sacred that any infringement of it, even though it be for the benefit of the person coerced, is regarded with much jealousy, and even with abhorrence, by the public. If the plan suggested by Dr. D. Dalrymple at a meeting of his constituents at Bath could be carried out, it would be a great social and public benefit. We fear, however, that difficulties attend it that cannot be easily, if at all, overcome. He suggests that the habitual drunkard should be sent to a reformatory, where he might learn that he could live without getting drunk, and where he could earn money enough to pay his cost whilst there, so that he might not be a burden to society. He has visited the inebriate asylums in the United States and Canada, and he found in many of those institutions over one-third, and in some one-half, of the inmates had been benefited. Whilst on the other side of the Atlantic, he heard that the Permissive Bill would not work; that in districts where it was enforced, with few exceptions, it was found not to prevent drunkenness, whilst the surreptitious and clandestine use and sale of liquors went on to a formidable extent.

MEDICAL MISSION IN INDIA.

Practitioners of Medicine, from the time of Clive, have had great influence on the native population of India, and have effected immense good, both with respect to our government of the country and the progress of civilisation. At a meeting last week, Lord Lawrence gave it as the result of his large experience that there was no mode of so easily getting at the hearts of the people of India as by Medical missions. There the very name of Medical Practitioner was a kind of talisman, and they almost looked upon him as deriving inspiration from Divinity.

VACANCY FOR A CORONER.

Mr. Robert Weston, solicitor, of Brackley, and Coroner for the Western District of Northamptonshire, died last week. It is believed that if an influential Medical candidate were to contend the election he would succeed.

DAMAGES FOR SMALL-POX.

A CASE of much interest was decided in the Liverpool County Court on the 18th inst., arising out of illness caught by the plaintiff through being allowed to become a tenant of a house in which two cases of small-pox had just previously occurred without any steps whatever having been taken to disinfect. Hitherto in such cases proceedings have been taken against the landlord before the magistrate, and a penalty imposed under the Public Health Act. In the present instance, however, the person who had caught the small-pox, a Mr. Pritchard, brought an action against the owner, Mr. Huntington, to recover damages for the breach of duty whereby he had suffered injury; and not only was a verdict given for the full amount claimed, with costs, but the judge, Mr. Sergeant Wheeler, thought that the plaintiff had understated the damages to which he was entitled, by limiting himself to the loss of wages during the time that he was laid up, and not including other expenses necessarily incident to such an illness, the payment of which might properly have been demanded.

DR. CRACE CALVERT ON ANTISEPTICS.

WE are sorry that we are compelled, by inexorable space, to leave out this week our report of Dr. Calvert's discourse on the Effect of various Substances in Preventing the Development of Low Organisms in Infusions of Organic Matter, and in Destroying such Organisms when formed. The reputed effects of sulphate of quinine in preventing the development of fungi were curious; so were those of the well-known "bleaching-powder," or chloride of lime, in promoting decomposition after a certain stage. The general purpose of the experiments showed that it is, on the whole, easier to prevent the development of low organisms than to destroy them when development has begun—in other words, that prevention is easier than cure.

MANCHESTER MEDICAL SOCIETY.

AT the annual meeting of the Manchester Medical Society held on January 10, the following were elected office-bearers for 1872:—*President:* John Galt, Esq. *Vice-Presidents:* M. A. E. Wilkinson, M.D.; T. Windsor, Esq.; D. Lloyd Roberts, M.D.; J. Thorburn, M.D. *Treasurer:* E. Lund, Esq. *Honorary Secretary:* C. Currie Ritchie, M.D. *Honorary Librarians:* C. J. Cullingworth, Esq.; C. E. Glascott, M.D. *Committee:* L. Borchardt, M.D.; J. Buckley, Esq.; J. O. Fletcher, M.D.; J. Haddon, M.D.; W. Heath, Esq.; D. Little, M.D.; T. Mellor, Esq.; J. E. Morgan, M.D.; J. Roberts, M.D.; W. Roberts, M.D.; A. Wahltuch, M.D.; W. Whitehead, Esq.

THE PROFESSION IN FRANCE.

A PARTY of Medical gentleman forming a portion of the National Assembly of France, about thirty in number, have formed an extra-Parliamentary Committee. Dr. Bouisson, Professor at the Faculty of Montpellier, and Deputy for Hérault, has been chosen President, and M. De Maby secretary. Amongst the numerous questions which this body will have to consider are—public assistance in the rural districts; organisation of military Surgical assistance; public hygiene and legal Medicine; the establishment of regulations for the better security of alleged lunatics; reorganisation of Medical institutions; and examination of the physical conditions of a good soldier. If properly carried out, these inquiries cannot fail to be attended with the most beneficial results.

THE SANITARY STATE OF BELGIUM,

AT the close of last year, was most favourable. Catarrhs and rheumatism predominated. Scarlatina, which had been reported in some districts, had abated. Typhoid fevers were very rare. Bronchitis and pneumonia, which had made some victims, had diminished since the severe frost gave way to the comparatively mild temperature lately experienced. The work recently executed in Brussels leads to the hope that the city will shortly become one of the healthiest capitals in Europe. Not a single case of cholera is reported in the kingdom.

ARMY MEDICAL DEPARTMENT.

DEPUTY Inspector-General of Hospitals H. H. Massy, M.D., C.B., sailed in H.M.'s troopship *Malabar* on the 25th inst. for India. Dr. Massy proceeds to Bangalore, where he will relieve Deputy Inspector-General Barclay. He will be succeeded as head of the Sanitary Branch in the office of the Director-General, Army Medical Department, by Inspector-General of Hospitals W. Muir, M.D., C.B., now principal Medical officer of British troops in India, who will shortly be relieved by Dr. Beatson, C.B.

PUBLIC ANALYST FOR LIVERPOOL.

IT appears, from a report of the Liverpool Health Committee, that some difficulty exists in appointing a public analyst for that town. The Act of Parliament is deficient in this respect. The subject, however, is deemed of so much importance, that it is proposed, as a tentative measure, that an arrangement should be made with a person qualified to make analyses, and to give evidence in respect of articles sent to him by the Medical Officer of Health and the Inspector of Nuisances.

FROM ABROAD.—DEPRESSION OF TEMPERATUEL IN GUNSHOT WOUNDS —M. LASÈGUE'S CLINICAL EXERCISES.

As the result of his investigations, carried on in numerous cases duing the late war, M. Paul Redard contributes to the current number of the *Archives Générale de Médecine* an interesting memoir on "The Depression of Temperature which takes place in Severe Injuries from Gunshot Wounds." The following are the conclusions which he arrives at:—

1. In severe injuries from gunshot wounds, a depression of temperature is of constant occurrence. 2. Various elements are brought into play in the production of this depression. Among the principal may be noted the nervous shock, the excitement of the combat, with the consecutive stupor, haemorrhage, and alcoholism. 3. Any patient brought into an ambulance with a severe wound calling for operation, having a temperature below 35·5° (95·9° Fahr.), will die, and, consequently, performance of an operation in his case would be useless. 4. Any wounded person, in whom a salutary reaction does not take place by the end of four hours, and in whom the reaction is not in direct ratio to the depression, should be considered in a state of very great danger. 5. Burns give rise to exceptional depressions of temperature. 6. It is the same with penetrating wounds of the abdomen, the depression being more marked in proportion to the propinquity of the stomach. 7. The diagnosis of penetrating wounds is rendered easy by reason of the characteristic thermometrical phenomena which they give rise to. 8. The state of drunkenness in which the wounded are sometimes found singularly favours the production of the depression. 9. Wounds produced by shell, *cæteris paribus*, give rise to a more marked depression of temperature than wounds caused by ball.

The *Gazette des Hôpitaux* of the 20th inst. contains an account from a reporter who attended what are termed the "Clinical Exercises" instituted at La Pitié by Professor Lasègue, and we do not doubt that our readers will feel interested in the narration. The wards were first visited, where, as is the custom generally adopted by the Clinical Professors at Paris, certain of the students were requested to interrogate and examine patients under the eye of the Professor. All then repaired to the theatre, where M. Lasègue, seating himself among the auditors, desired one of the students who had taken part in the examination in the wards to occupy the Pro-

fessorial chair, and furnish a *vivâ voce* exposition of the history of one of the patients. His narration having been completed by aid of short rectifications and additions on the part of the Professor, the student was next required to pronounce his diagnosis and to state his opinion concerning the most remarkable circumstances of the case. When he hesitated or went astray, the Professor encouraged him by a few words, having for object to confirm his opinion, or to point out how he might recover the track again. If he stopped short, another student, or even a second or third, was appealed to, so that presently there became established between the Professor, his *chef de clinique* (who naturally took an active part in these exercises), and these students a veritable consultation, the result of which, summed up and formularised by the Professor, must have been not less profitable to the patient who formed the object of it than to the students who took part in it, or those of them who were only listeners. After the consultation had thus been brought into proper shape, the patient, when his condition and the nature of his disease admitted of it, was brought into the theatre, and again placed under the eyes of the students, who were thus enabled immediately to verify, confirm, or correct in their minds, by examination or interrogation, the doubtful points that had been the object of controversy. Two or three cases, according to their importance, are thus treated by as many students at the same *séance*. These exercises, which, as will be seen, constitute a kind of mutual instruction, take place on Tuesdays, the Professor delivering his clinical lectures on Thursdays and Saturdays.

After describing one of the cases examined at these exercises, the reporter goes on to say:—

"I return to the mode of clinical exercise adopted by M. Lasègue, or rather annexed by him to the other modes of teaching followed by his colleagues. Without having the pretension to form by this means a nursery of apprentice-professors, which in any case would only apply to a small number of the students, M. Lasègue, by thus making an appeal to the good disposition and intelligence on the part of his pupils, appears to us to have introduced a powerful element of emulation among them, and, further, an excellent mental exercise. Nevertheless, while recognising all that this mode has good in itself, and applauding M. Lasègue for having put it into execution, we are quite certain that he has never pretended to have invented it. The Germans, so methodical in everything, have been loudly praised in all the official and officious reports that have been made of late years on their mode of teaching, for the luxury of their laboratories, the special importance attached to autopsies, and for their organisations for clinical exercises, wherein the pupils are allowed to actively employ both their hands and their brains, under the name of *pratiquants*. It is therefore, in certain respects, an imitation of what is done in Germany that M. Lasègue has sought to introduce into his Hospital services, but with the modifications required by the *esprit français*—that is, with less elaboration and formality, with more *bonhomie* on the part of the Professor, and with more liberty and spontaneousness left to the students."

MEDICAL HONOURS.

(*From a Correspondent.*)

We have at length, in the *Gazette*, and in formal public announcements, a measure of the value attached by the nation to the life of the Heir-Apparent, as shown by its gratitude to those by whom that life was—if such a term can be applied to any human efforts—preserved.

Sunday after Sunday we have offered up prayers for the preservation of this life supposed to be so dear to the nation. Day by day we have read the frequent bulletins signed by those who were entrusted with one of the most anxious and responsible tasks that ever fell to the lot of man to endure—and endured without remission, and at the sacrifice of all private interest for weeks together, with a loyalty which few but those who know what it is to bear such a continuous strain can estimate; but—well, we hope that, though the end of the proverb is fulfilled, the other half may escape verification—"God is forgotten, and the Doctor slighted."

Of the two who might thus be supposed to have earned the nation's gratitude, one—Sir W. Jenner—has already gained the highest honour hitherto bestowed in this country on the Medical Profession, for services by which he had only too well earned the reward of a country squire who votes steadily enough for his party, or of a lord mayor who, by good luck, may once have the honour of presenting an address in person to the sovereign! And what is his further reward? A K.C.B.—the honour of a respectable mediocrity in the Civil Service, or the gift of avoiding any egregious blunder in the walks of diplomacy.

Dr. Gull, again, is to have a baronetcy; and this is the country's measure of the value of the life of the Prince of Wales! We can bestow honours and rewards thick and fast on the negotiators of a treaty which has left us more than ever open to the insolent demands made upon this country by the statesmen of America. We can reward with a peerage and grant of the nation's money an able general who could defeat a poor barbarous king of savages whose sole possession was one big gun. For those, however, who have fought a long month's battle with death, and have rescued the life of the Heir-Apparent, and who did this by a deeper knowledge than even that of the great soldier—a knowledge gained, in the case of Sir W. Jenner at least, at the risk of his own life from the very disease whose nature he was the first to unravel and discover: a task which he did so well, that nothing has since been added to the work he did thirty years ago—for these we have a baronetcy and a second-class K.C.B.!

We are going to have a national thanksgiving; let us hope that this, at any rate, may be real. But the Medical Profession can only feel that for its highest members their virtue is its own reward; and with this we trust they will be content, for they do not seem likely to get any other from a grateful people.

DYTE *v.* ST. PANCRAS.

(*From a Correspondent.*)

Dr. Dyte's appeal to the judges *in banco* in the case of Dyte *v.* the Guardians of St. Pancras has been dismissed, of course with costs, which are by no means light. Our readers will remember that that enlightened and liberal body refused to compensate Dr. Dyte for his sudden and injurious removal from the office of Superintendent of the Highgate Infirmary, which had been the outcome solely of one of those outbursts of party spirit which have rendered this parish so notorious. It was admitted that Dr. Dyte's management of the Infirmary was more than usually efficient—a judgment of his merits which was amply confirmed by numerous Hospital Physicians and Surgeons, and other competent judges, official and others. But to gratify party spirit, and perhaps to effect a miserable economy, they justified the dismissal and refused to allow compensation, on the ground that Dr. Dyte's appointment had never been sealed with their common seal! We need not inform our readers that there is scarcely a Poor-law Medical Officer in the country (not to mention other public officers) whose appointment is thus formally and officially confirmed. This mean conduct of the St. Pancras Board of Guardians appears, however, to be *legally* right. It is not difficult to foresee the complications likely to arise out of such a decision. Men who have grown grey in the public service, or who have given up lucrative private practice for infirmary or asylum employments, may find themselves abruptly dismissed, without legal remedy, unless (as hardly ever occurs) they have secured the massive seal of the corporation or vestry. Nor does this apply to Medical men alone. Forewarned is forearmed; and, unpleasant as the news may be to many of us, of the uncertain tenure on which we hold our offices, we have all of us reason to be thankful to Dr. Dyte for his timely warning, and indirectly even to St. Pancras! But, meanwhile, Dr. Dyte is a sort of scapegoat for his Medical brethren. The fund raised for his appeal has hardly reached a third of the expenses which he has necessarily incurred. Under these circumstances, we beg all our readers

to contribute, according to their power, to the "Dyte *v.* St. Pancras Guardians" appeal fund, subscriptions for which will be received with thanks by Dr. Bathurst Woodman, of No. 6, Christopher-street, Finsbury-square.

REVIEWS.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.M., M.D., LL.D., Professor of the Practice of Surgery, with Operations, in Bellevue Hospital Medical College; Surgeon to the Bellevue Hospital, New York; Consulting Surgeon to Hospital for Ruptured and Crippled; Author of a Treatise on Military Surgery and Hygiene. Fourth Edition, revised and improved; illustrated. London: Trübner & Co., 60, Paternoster-row. Philadelphia: Henry C. Lea. 1871.

So frequently do fractures and dislocations occur in practice; so important is the correct diagnosis and treatment of them, not only to the patient, but for the success and reputation of the Medical attendant; so obscure, in many cases, is the exact nature of the injury, and so numerous the complications which may arise—that the study of them is of the utmost moment.

As levers of indispensable use in locomotion, and in weight lifting and carrying, as necessary for the minutest manipulations, and as parts of the walls of cavities for the protection of important organs, the services performed by bones are of such significance that their fractures are at once productive of the greatest disqualifications. It can never, therefore, be otherwise than a most responsible department of Surgery to unfold the principles by which their cure should be conducted with propriety and success—to restore, that is, the functions, and to preserve the form of the parts injured.

It is not the study of each individual fracture and dislocation that is alone important; the general characters of these injuries, especially of fractures, demand the attention of the Surgeon who would fully understand the nature of special cases. For this reason the etiology, semeiology, course, and terminations (which constitute the science), as well as the diagnosis, prognosis, and treatment (which are the art of our subject) must be taken into consideration.

We find, therefore, that it has long been an object with writers on this branch of Surgery, to state general principles as well as to describe particular forms; and whether we refer to the excellent "Practical Treatise on Fractures," by E. F. Lonsdale, published in 1838, to the small work of John Aitken, on "Fractures and Luxations," of the year 1790, or to the "Syllabus of Surgical Lectures on the Nature and Treatment of Fractures," by Amesbury, in 1827, we see that in all of them *general* observations precede the description of the details of each kind of accident.

Still, until quite a recent period, the Surgery of fractures and dislocations had been treated either piecemeal or insufficiently. The writings of two of the authors above alluded to relate only to fractures, and the work of Aitken is altogether inadequate for these later times. From the time of the appearance of the works of Wiseman, in 1734, and Pott, in 1768 and 1772, up to the date of Astley Cooper's and Robert W. Smith's writings at the latter end of the first half of this century, there were many good tracts and treatises produced in our language on Fractures, Compound Fractures, and Dislocations, including those of Weldon (1794), Earle (1807), Beaumont (1831), and Guthrie (1838), but none of these presumes to be complete.

The well-known work of Sir Astley Cooper, now before us, is, as its title announces, "A Treatise on Dislocations and Fractures of the Joints," and this alone; it was, however, the most perfect English monograph on the subject until Dr. Frank Hamilton's volume appeared in 1859.

Some twelve years before this date a grand and comprehensive work had been published in the French language by Malgaigne, who, while lamenting that his country was behind England and Germany in this branch of their literature, more than compensated for the deficiency of his countrymen, and, in his "Treatise on Fractures and Dislocations," gave to the Profession a book which, whether we regard it from a historical or dogmatic point of view, and supplemented and enriched as it is by a voluminous atlas, must be esteemed one of the most complete works extant. More recently still, Gurlt has issued, in the German language, an exhaustive treatise on the subject.

To Dr. Hamilton, however, belongs the credit of producing the first and only complete treatise in the English language; and the volume which has suggested to us the present remarks is far too perfect to permit either of adverse criticism or of praise which could be deemed undeserved. Were this not the case it would be unnecessary for us to describe and review at any length a book which has already more than once passed under the reviewer's notice, and is so well known. It is sufficient to say that the present is the fourth edition; the first three were called for in seven years, and the last is now published four years after the third. This in itself shows clearly the approval with which the results of the author's work have been received.

The volume consists of two unequal parts. The larger portion, on Fractures, includes a general division, an account of their origin, signs, and diagnosis, of the repair and delayed and non-union of broken bones, and of the general treatment, and some peculiarities of fractures. Then follows a detailed account of the special fractures of each region, commencing with the bones of the face, of the hyoid bone and cartilages of the larynx, then going on to the vertebræ, sternum, and ribs, and finally to the upper and lower extremities. Gunshot fractures are considered more or less in detail under the several headings whenever it seemed to the author necessary to allude to them specially; but in the last chapter of Part I. he has given a *résumé* of his own observations and conclusions, and added some general statistical statements upon them drawn from the results of the American war.

Dr. Hamilton has not apparently thought it desirable to act upon the suggestion of some critics of former editions, to add a chapter on Fractures of the Skull, and we quite coincide in this decision. Fractures of the skull are not of the same nature as fractures of other bones (some fractures of the spine excepted); they do not require treatment for themselves, as a rule, but only on account of the effects produced upon the parts within, and they therefore give rise to a totally different class of considerations to those provoked by other fractures.

In the chapter on Fractures of the Femur, the question as to the kind of union which takes place in fractures within the capsule of the joint, is, as formerly, treated of at great length, and many allusions are made to the opinion of other authors; but we notice the omission of some discussions "relating to the value of certain specimens claiming to represent bony union after intracapsular fractures of the neck of the femur." The reflections upon John Bishop, and those who listened to his Lettsomian Lectures at the Royal College of Surgeons in 1855, in which he stated that Sir Astley Cooper believed that the fractures were "incapable of being repaired by osseous matter," find no place; and Sir Astley's views on this subject are, as heretofore, fairly laid before the reader.

The information contained in the chapter on the General Treatment of Fractures is invaluable, and should be known to every Practitioner. Almost every possible form of apparatus is here discussed, and then commended or condemned. The student, too, will find warning of the necessity of refinement and sensibility, *even*—as they may think—in the manipulation of fractured limbs; and he will see that those who cultivate not these qualities are consigned to the limbo of "some more suitable employment than the practice of a humane art."

Part II., though shorter, deals very fully with Dislocations. General considerations precede the *seriatim* descriptions, though these are necessarily more brief than those on fractures. The last two chapters—on Compound Dislocations of the Long Bones, and on Congenital Dislocations—are full of interest and instruction. Finally, 322 figures illustrate and simplify the text.

In fine, the book is full of useful detail, is simple in its arrangement, explicit in description, and pleasantly and lucidly written. Its comprehensiveness and trustworthiness, and the facility with which reference can be made to any portion of its contents, make it a safe and valuable work to recommend as well to every practical man as to every earnest student.

We cannot too thoroughly recognise the merits of the author, who has done so much to justify the fair name obtained by American Surgeons.

A Venerable Surgeon and a Tough Patient.—A short time ago Dr. Joseph Stevens, now in his 82nd year, amputated the thigh of a patient, 66 years old, for obstinate and extensive ulceration of the foot and leg of forty years' duration! On the second day the patient sat up in bed, and shaved himself, and before the end of a week was able to get out of bed, without assistance, each morning, to have his bed arranged.—*Boston Journal*, November 2.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, January 24.

Education of Women at Edinburgh.

(*From an old Correspondent.*)

I shall not trouble you with the reasons of my long silence, but will plunge at once *in medias res*—and thick and slab they are here—anent the "woman question." So far as the University is involved, the business is at an end; the Senatus and Court have both found out that the Medical education of women is both impracticable and illegal. The aggressive party threaten litigation to compel the Professors to teach and the Senatus to graduate women in Medicine; but the head of the law courts (the Lord Justice-General) is Chancellor of the University. As the Tory Lord Advocate Inglis he carried the reform of the Scottish Universities through Parliament, and knows that both law and custom are as dead against these claims as if they were a speculative dream of an estate.

Still the fight rages, and just now around the Infirmary. The women's friends proposed that, as mixed classes for clinical teaching were objected to, there should be thirty or forty beds set apart, in the nature of a distinct Hospital, for the exclusive use of the "ladies." It was reasonably argued by the Infirmary managers, that a clinical Hospital must have no fewer than eighty beds, and that, consequently, such a scheme would be a fraudulent evasion of a regulation of the examining boards made obviously in the interests of the public; so they declined to adopt it. Professor Bennett, Dr. Balfour (editor of the *Edinburgh Medical Journal*), and Dr. Watson (the author of a shilling pamphlet on syphilis) were its godfathers.

At the annual meeting on January 1 (current), an attempt was made to turn out some of those managers who had opposed this impracticable scheme for a mere accommodating set, and hence a contest, involving several hundreds of men of business. Ladies went about canvassing for votes, and the Profession generally took the side of the managers, as in honour bound to do. As only seven "Doctors" voted with the ladies, the whole body, Medical Faculty and all, are denounced by the *Scotsman* as "trades-unionists," and as actuated by the meanest motives. Threats are not spared that if the ladies do not have their own way the funds of the Infirmary shall suffer by withdrawal of subscriptions. The sick poor (God help *them!*) are the last to be thought of. The bickering is, however, adjourned to the Court of Session for the present, where a law-plea has commenced in the form of an interdict.

The misery this agitation is inflicting on the society of Edinburgh is inconceivable. Unfortunately, the Lord Provost (an *ex officio* member of various bodies) seems not strong in mind and judgment, and by his conduct only adds fuel to the flame of discord which is running through the University, the Professors, and families, and separating old friends. One lady got into such a state of excitement in publicly supporting "the ladies" (when they occupied the platform and waved their handkerchiefs at the last meeting about the Infirmary managers) that she is said to have died on her doorstep on her return home! It is believed one or two more will find their way to an asylum.

The course that the agitation has taken has raised some curious questions. Why has a portion of the press taken it up so generally on the women's side? And, still more, why is there such a uniformity of tone therein? "The extraordinary history of the vicissitudes endured by the lady-students," says the *Scotsman* of the day, and *passim*. Further, this paper has an extract from the *Glasgow Herald*, beginning—"The sufferings of Miss Jex Blake and her colleagues," etc.; another, from the *Lancet*, accusing the Edinburgh school of "want of common courtesy," and affirming that it "stands convicted of having acted unfairly to seven ladies." Nor must I omit that the *British Medical Journal* figures amongst the indignants as the representative of the British Medical Association, in company with the *Daily News*, *Examiner*, and other papers, the organs of the general public. I need hardly say that all these numerous accusations are false, whether of individuals, the students generally, or public bodies; but the rule apparently is for the ladies to act the part of peaceful, persecuted, humble suppliants, and for the writers to abuse without scruple as to facts every body or thing that opposes their schemes. The *Scotsman* has been the chief offender in this respect, and an amusing reason why oozed out not long since. The editor proved to be a lonely widower; a sweet and widowed Medical undergraduate had fascinated the old gentleman; and he finally had to "ring his own (k)nell," as he facetiously but truly observed, at the altar. Mr. Massen, the Professor of Rhetoric, it is believed, does some of the scolding in the press, assisted by Miss Jex Blake, who also is said to write for the *Scotsman*. He hinted in his speech to the University Court that he "would wear his eyelids off" in the work; but he looks as if he had done that already. This fussiness of the *litterateurs* is the more amusing because it is understood Massen is also under domestic influence. The same applies to Henry Kingsley, eminently one of the *genus irritabile*, late editor of a daily paper the organ of the Free Church—the same gentleman who acted as a Don Quixote in the row the mixed anatomical class excited, and grossly exaggerated it. In consequence of his and Miss Blake's statements, it is quite understood that the whole Medicals of the University "foully" abused the seven poor ladies; whereas, out of more than 600 there were not forty present, and some of these sympathised with and protected them against the street gamins, the chief offenders. He also defended Dr. Eliz. Blackwell's political economy, as expounded in her wise rule for poor married people "not to burden the household with more children than it can bear." The tone of all these writers is singularly ultra-feminine, both in its scolding and its unreasonableness. The ladies cajoled some of the Professors into weak concessions; now, when they cannot do more, they are charged with the academical seduction of the ladies—with bringing them to Edinburgh, and then leaving them in the lurch. It is in vain to reiterate that the ladies in the first instance pressed their attentions upon their victims; they are not the less a hard-hearted, selfish, jealous lot—vituperatively, *ad infinitum*.

Some still more curious questions arise as to the reason why the *Faculty of Arts* has taken such a warm interest in favour of the Medical women, and make no sign as to mixed classes in their own department. Masson's speech, just referred to, opened people's eyes a good deal. The Senatus had resolved to abandon the regulations they had so hastily adopted, but five Professors protested, and appealed against the decision to the Court, and a whip was made to bring up the absentees of the party, who had stayed away for reasons best known to themselves. So, analysing the votes in the different Faculties, Masson showed that, of the fourteen Professors in the Arts Faculty, ten were in favour of the regulations, two undeclared, and only two against them; but of the twelve Medical Professors ten were against and only two for. That body had, however, he said, "fluctuated on the subject." Professor Turner showed how this happened. When the matter came first before the Medical Faculty three chairs were vacant, so that instead of twelve there were only nine, and the senior Professor (Christison) was absent in London; of the remaining eight only six were at the meeting, and only four were in favour of the resolution upon which the regulations were founded. I have ascertained that the four were Bennett and Balfour (who declared their readiness to give a special course to the women), and Spence and Maclagan (who would not, but were willing to allow those to do so who would); the six were made up by Laycock and Turner, who declined to vote—Laycock declaring the Faculty had no power by law, charter, or custom of the University to educate women Professionally. The two who judiciously stayed away were Simpson and Allman; neither were supporters in the Faculty, although the name of the former is frequently quoted as having been so. Professor Bennett in his address to the Court (in conjunction with Masson) frankly declared he had the fees in view: he had pocketed this session £160, he said, and in fact he charged the women ten guineas each for their first course, while the male students pay only four guineas. The hard work has cost him dear, for his health broke down under it immediately after the meeting, and he has gone to Mentone, leaving both male and female students to be taught by his assistant. Balfour, more "canny," says nothing about the "siller."

Now there is in Edinburgh an association for promoting the higher education of women. It is officered by ladies. Masson at first looked rather shy at it, but being pressed, he gave a course of forty lectures on English literature, and pocketed something very handsome. He now became quite enthusiastic about "the ladies." This feminine class, with forty lectures, and paying two guineas, was at the end of the course as accomplished in English literature, in his opinion, as his masculine class with one hundred lectures. In truth, in his enthusiasm, he rather over-egged the pudding, for it was thought his male students would have been all the better, too, for only forty of his lectures. His ambition had grown by what it fed on, so that,

in conjunction with his colleagues, he invented a grand scheme for establishing a *female Faculty of Arts*, with a very attractive feature to the Professors in Arts. These have a monopoly of teaching, for no one can graduate in Arts unless they have taken all, or nearly all, their academic diet from these gentlemen. They resist being put on the same footing as the Medical Faculty, on the plea that they would starve. This monopoly they proposed to extend to the new female Faculty of Arts, but the University heads did not *quite* clearly see their way to adopt the wild scheme; so Masson, in his speech to the Court, attacked the University for neglecting even the general culture of the ladies. "There were between 200 and 300 ladies," he said, "attending separate classes, taught by University Professors, but these ladies were put to all sorts of disadvantages because the University would not pay any attention to them, and would not even give them certificates." The point that was uppermost in Masson's thoughts is conclusively shown by his answer to Mr. Alexander Grant, the Principal, who immediately corrected him as to these assertions. He said, "If the University looked out for stability before it recognised any institution, if it looked out *for ready-made sources of income for the Professors*, that was not the notion of itself which it ought to adopt."

It is this short-sighted, interested policy, and these crude schemes which provoke the temper. The results of all this folly have yet to come.

COLONIAL CORRESPONDENCE.

AUSTRALIA.

MELBOURNE, VICTORIA, November 6, 1871.

THE subject of cholera is beginning to occupy public attention in these colonies. Hitherto we have enjoyed a complete immunity from its ravages; now and then there have been rumours of its appearance, but the cases which have given rise to the rumour have always turned out to be instances of exaggerated diarrhœa, terminating fatally in consequence of previous exhaustion from other causes. It is felt, however, that, though our freedom from its presence has, so far, been complete, the mere fact of our remoteness from European and Asiatic foci gives us no sufficient grounds for presuming upon a permanent immunity. The conditions favourable to the propagation of the poison, moreover, exist in abundance in all our larger centres of population; in Melbourne, especially, they are in rank excess. Though the largest, richest, and in all other social particulars the most important city of the Australian group, we have not yet been able to settle as to the best mode of getting rid of our night-soil and sewage. For a long time the former of these was deposited in a heap just outside the city, where it underwent some sort of preparation, and was then carted away into the country; but it proved such an insufferable nuisance that the "manure depôt" was at last abolished. Up to that time the rule of cesspits was universal. Having no sewers, water-closets were impossible; and although about half a dozen persons adopted a system of filtration, and allowed the filtered fluid to pass into the street-gutters, this was forbidden by the Corporation. It came to pass, therefore, that the subsoil of the whole city was fast becoming a subterranean bog, and the general health in low-lying situations was observed to be seriously affected in consequence, when the leading journal (the *Argus*) commenced the advocacy of the earth-closet system, and the recommendation was at once largely adopted. The local Board of Health, represented by the City Council, warmly counselled the use of earth-closets, and an endeavour was made to secure a provision in the Amended Health Act compelling the adoption of the earth-closet. This, however, the Legislature did not agree to; but the practice has, nevertheless, become very general. So far as the disposal of our night-soil is concerned, therefore, we are much better off than we were. Many hundreds of cesspits have been filled up, and the City Council have undertaken the duty of emptying the closet-pans. There is now, therefore, no excuse for anyone to neglect the regular removal of night-soil. Coincidently, a host of disinfectants have sprung up, the most prominent of these being a chloralum prepared from Kaolin clay, which is found in large quantities a few miles from the city. It is manufactured by Mr. John Sullivan, under the superintendence of Mr. Cosmo Newbery, the analytical chemist to the Technological Museum, and it is found to answer the purpose of deodorisation very well. In this better management of the closet arrangements of our houses, therefore, we may be said to have made some progress, but our sewerage is yet to be decided upon. We have nothing but street-gutters, down which all our liquid refuse runs into the river, which is becoming little better than an open sewer. Some years ago the Yarra was the principal source of our water supply, and it was sufficiently pure for this purpose. It has, ever since the foundation of the city, been the receptacle for our sewage; but since the Yan Yeorn water supply has rendered us independent of river water, the population of Melbourne, especially in the suburbs, has extraordinarily increased, so that now the Yarra, which was once a limpid stream, is pretty much what the Thames was twenty years ago—a very large and nasty gutter. A certain section of our legislators, desiring to make bad worse, and having in view the conciliation of their manufacturing constituents, continually endeavour to promote the establishment upon its banks of factories, which add, of course, their contribution to the vast sum of filth poured into the stream. The noxious Trades Commission have, however, recommended the appropriation of a portion of ground situated about four miles to the south-west of the city, where every manufacture of an offensive kind is to be located; and it is understood that the Legislature will offer no opposition to the proposition to adopt this scheme. Meantime, by way of making a beginning in underground drainage, the Government have ordered a complete survey to be made of the whole metropolitan district, preparatory to the consideration of the sewerage question; so that it must be confessed, although nothing has been done in the way of getting properly rid of our sewage, a good deal of discussion is kept up concerning it. For all this, as will be perceived, our actual condition is anything but satisfactory. It must be admitted, however, that so far as the enforcement of the Health Act, such as it is, can render us hygienically better off, as much is done by the Central Board of Health as well can be. Dr. M'Crea, the Chief Medical Officer, and chairman of this body, is a very model of official activity, and although his vigilance and conscientiousness make him unpopular among those whose habits are lax and whose notions of cleanliness are obscure, he is deservedly held in high esteem by all rightly thinking persons. Whatever he can do, both individually and as a public officer, exercising an important trust in insuring general conditions of health, will not fail to be done. We are fortunate, as may be known to you, in being subject, during the summer months, to fiercely desiccating hot winds, which cause the rapid evaporation of all surface-fluids. To this disagreeable, but nevertheless most salutary wind, we owe our preservation from many zymotic diseases, and it is possible that the poison-germs of cholera might find their propagating conditions limited by this means. This, however, is at best but speculation, and we look, therefore, with no little anxiety to the active condition of the disease in the other hemisphere.

Of news there is not much. Dr. Hunt, an unknown man, has been appointed Physician to the Melbourne Benevolent Asylum, and Dr. Wigg has been elected Pathologist to the Hospital. Mr. Mingaye Syder, an L.S.A. of fifty-one years' standing, has died; and Mr. D. B. Reid, Resident Surgeon to the Geelong Hospital, has proved victorious in the action for slander he brought against a member of the Committee. The defendant's expenses, however, have all been paid by a public subscription. Dr. Jamieson, of Warrnambool, has published an excellent little book, with the title of "How to Feed Infants"; and the Homœopathic Dispensary has been subsidised by Government to the extent of £150.

FOREIGN CORRESPONDENCE.

AUSTRIA.

VIENNA, January 15.

ON THE DIAGNOSIS OF SYPHILIS BY THE MICROSCOPE.

AT the last meeting of the Vienna Medical Society, Dr. Lesterfer read a paper containing the results of investigations into the nature of the microscopic appearance of the blood of syphilitic patients. The researches have been continued several months in Professor Stricker's laboratory, and, as will be seen, confirmed by no less an authority than that of Hebra, and if further confirmed they will, beyond any doubt, be one of the most important discoveries for practical Medicine.

During the last few years several attempts have been made

at explaining different diseases, and particularly infectious ones, by the presence of fungous growths in the blood, secretions, and excretions, as well as in the tissues of the human and animal body. In syphilis it was particularly the patients' blood which has been searched for organisms of a lower range. The results of these investigations, however, have been negative, with the single exception of Hallier, who describes a fungus, found in different infectious diseases, of that nature which has been called "micrococcus" by the same author. The micrococcus *per se* is not characteristic of any disease, but becomes so—according to Hallier's opinion—in the species produced by artificial cultivation. One of the greatest micrologists (De Bary) has objected in a most emphatic manner to Hallier's method of cultivation—so that it has been abandoned by almost all workers in that direction.

Dr. Lostorfer thinks that the negative results of blood investigation have been due to two causes, namely—1. Hitherto nearly all researches have been made with too low powers; he is convinced that such investigations cannot be made with a less magnifying power than with Hartnack's eyepiece No. 3, and the immersion-lens No. 10. 2. All researches have been made with fresh blood, and the objects soon spoiled by an unfavourable method of preservation. The opinion has, unfortunately, always been prevalent, that what is to be seen in blood must be seen best in fresh blood, but it has been overlooked that things may be so minute as not to be viewed at first, but that they may grow to a visible size.

Under these considerations, Dr. Lostorfer commenced his researches in August, 1871, in Professor Zeissl's wards for syphilis. The method observed was excessively simple. A small drop of blood, taken from a syphilitic patient, was put as quickly as possible on a clean object-glass, covered, the whole object conveyed to an exsiccatorium, arranged in a kind of Recklinghausen's moist camera, and daily carefully examined with the magnifying powers mentioned above. The result of the first four objects was already positive, and remained so afterwards in large numbers of objects, the blood having been taken from different patients suffering from various, yet unmistakable, forms of syphilis.

During the first two days of investigation nothing could be seen except vibriones, bacteria, and commencing forms of sarcina. In the third or fourth day, however, and, in exceptional cases, after the lapse of twenty-four hours, minute bright corpuscles became visible, some of which remained immovable, whilst others continued in a state of undulation. Some of these bodies exhibited a projection. On the fourth day (exceptionally on the third, fifth, or sixth day) the corpuscles were enlarged in bulk and in numbers. Of those enlarged, the majority had the projections just named, which were undoubtedly a kind of sprouts, which in some cases were larger in size than the corpuscle itself. In the following days the growing continued, so that some of these bodies became as big as, and even bigger than, red blood-corpuscles. Besides these, there were numbers of smaller corpuscles visible, growing and sprouting, some exhibiting one projection, others three or more projections; the latter were sessile, or had a minute pedicle. The corpuscles were by no means all globular, but of different irregular shapes. After eight or ten days a vacuola was formed in the larger corpuscles, which extended over the whole corpuscle, and terminated the further development of the growth. Different fluids, as sugar, Pasteur's liquid, common salt, acetic acid, etc., were not able to arrest the shrivelling of the bodies and further retrograde development.

Concerning the number of corpuscles, it varies greatly in different cases. Whether this be dependent upon the different stage of the disease, cannot yet be said, and must be reserved for further investigation. Dr. Lostorfer has treated in a similar manner the blood of patients labouring under gonorrhœa, diphtheria, eczema, typhus, elephantiasis, and lupus, but never found anything to be compared with the appearance of syphilitic blood. Dr. Lostorfer is cautious enough not to give any opinion as to the relation of the "syphilis-corpuscles," as he calls them, to the disease; whether they be the cause or the result of the latter he pretends not to know, but contents himself to state the facts he has found. After having alluded to a number of patients (and their histories) from whom he had procured blood for examination, he winds up with the statement that he is able in any case to form the diagnosis of syphilis by examining the blood microscopically.

After the paper was read, and received with great applause and encomiums by Skoda and Hebra, Professor Stricker confirmed, in addition, that the author of the paper had been tried seven times—viz., five times by Stricker, and twice by Hebra—in the following manner:—In the first trial, twelve objects, numbered and registered, were given to Dr. Lostorfer; two (Nos. 8 and 9) were taken from healthy persons, the other ten from three patients suffering from different forms of syphilis. After a few days, Dr. Lostorfer responded:—"Nos. 8 and 9 healthy, two objects spoiled, the rest syphilitic." Second trial, made with seven objects—"Nos. 1 and 3 syphilitic, the rest healthy." Third trial, with nine objects—"Nos. 3, 5, and 8 syphilitic, the rest healthy." In both trials, after four days the healthy objects were picked out from the syphilitic ones, with the exception of the two objects which were spoiled. Fourth trial, with twelve objects—four syphilitic, and eight healthy. (The objects by some accident having been exposed to a temperature of 12·15° C., previous to their deliverance to Dr. Lostorfer, the latter replied that "Nothing abnormal could be detected.") Fifth trial, with four healthy and three syphilitic objects. The reply was corresponding to the registration made by Professor Hebra and kept by himself secretly. In the sixth trial, one syphilitic object was given, and five healthy; in the seventh, two syphilitic and four healthy; and in both cases recognised accordingly.

AMERICA.

Philadelphia, December 30, 1871.

The Board of Health of New York has lately been investigating the general hygienic condition of that city, and, among other points of interest, has visited with its sanitary attention some of those homes of misery known as tenement-houses. It must not be inferred, from the oft-repeated allusions to these teeming dens of poverty, that New York offends the eye of the visitor by accumulated masses of unsightly pauper edifices. On the contrary, a stranger in its miles of busiest streets and avenues, might never be brought in contact with them unless by accident he should wander into localities in which they are numerically strongest. Some of these buildings hold out cordial invitations for sickness and death to enter, and, doubtless, under an epidemic infliction, these invitations would be as cordially accepted by those grim visitors. Is it not rather a wonder that the whole population of these frail tenements is not swept away *en masse*, when we read, as we do, in a very recent report from this Sanitary Board, that in two of the houses the roofs were broken through in several places, so that the rain poured in; the floors of the rooms in which the people lived were covered with filth; the cellars were literally gorged with the most offensive nuisances, and were consequently extremely dangerous to the health of the people in the locality; and the gutters ran over with liquid filth? One house was described as a three-storey frame, supported only by the adjoining tenement and a few beams in the corner; and as one moved about in the rooms the whole structure seemed to vibrate; one side was considerably lower than the other, and it was with great difficulty a stranger could safely walk about in them. Sixteen families, making a population of about one hundred persons, lived in these two dens, and the amount of mortality among them, from the condition of the surroundings, may be easily imagined. In two other houses the rooms were so low that a small man could not stand upright in them. The cellar beneath is used as a junk shop; it is very deep, and is made the receptacle for all kinds of rubbish and dirt. In these places there were fourteen families, all of whom were ordered to find new homes. These are Augean stables, but some modern Herculean power will some day sweep them clean, it is to be hoped for ever.

It is desirable that every practicable hygienic and sanitary precaution should be taken throughout the whole country in view of the prevalence of epidemic small-pox. It was at first supposed that the disease had probably passed its crisis in Philadelphia early in December, but since that time the number of cases and deaths has decreased but slightly, and it will be some time, I fear, before we shall be able to speed the parting guest who has so seriously disturbed our equanimity. A fine of fifty dollars is imposed in this city on every Physician who is derelict in reporting all the cases of contagious disease under his care, measles alone excepted, although practically this exception is extended to scarlet fever, hooping-cough, and other diseases of childhood. This law is probably pretty generally respected, although in one case within our knowledge such report, through ignorance, was not made. A patient called upon an eclectic Physician of this city with all the prodromic varioloid symptoms fully developed, and was treated for neuralgia of the head and back; but returning a day or two afterwards with those parts well covered with the characteristic exanthem, he was told that this eruption of

eczema (!) was the very best thing that could have happened to him, as now his neuralgia would be completely relieved; which last soon proved too true, for death before the end of the week relieved him of pain and every other symptom of a most malignant attack of small-pox. The number of cases reported to the Board of Health in Philadelphia during the year 1871—that is, from January 1 to December 30 inclusive—has been very large, and quite sufficient to create general alarm, being probably over 7000, while the mortality has averaged about 20 per cent. One per cent. of the population has been attacked with the disease during the year, a proportion which seems less remarkable when thus barely stated than when reduced to actual figures, and brought home—to yourselves in London, for instance. This percentage would represent with you an alarming total of about 40,000 cases, and about 8000 victims. I find in glancing over the columns of the *Medical Times and Gazette* for last spring, that they are full of appeals and warnings in behalf of protective measures against the small-pox at times when there were scarcely 100 deaths from it weekly in all London. Can you wonder that the public mind here has been materially agitated, when, with a population hardly one-fifth of that of your great city, the mortality from this one disease alone has risen from a minimum of 1 for the week ending September 9, 1871, through successive increments, until at last, with a total of 502 deaths in November, we have for December the following unusual summing up:—

Week ending December	2	. 233	deaths.
„ „ „	9	. 199	„
„ „ „	16	. 211	„
„ „ „	23	. 228	„
„ „ „	30	. 223	„
Total for December		. 1094	deaths.

A very singular coincidence in the mortality-rate of small-pox in Philadelphia, through a long series of years, is given in the *Medical Times* of this city. In a table embracing every year from 1860 to 1870 inclusive, taken from the records of the Board of Health, there was an average of one death to 6·6 cases reported, or 15 per cent., in every year except 1868, and the exception here is so insignificant that it does not vary the general average for the whole eleven years from 15 per cent.

Years.	Deaths.	Cases.	Average.
1860	57	380	1 death in 6·6 cases.
1861	758	5,053	„ 6·6 „
1862	264	1,760	„ 6·6 „
1863	171	1,140	„ 6·6 „
1864	260	1,733	„ 6·6 „
1865	524	3,493	„ 6·6 „
1866	144	960	„ 6·6 „
1867	48	326	„ 6·6 „
1868	1	7	„ 7·0 „
1869	6	40	„ 6·6 „
1870	9	60	„ 6·6 „
Total	2,242	14,952	1 death in 6·6 cases, or 15 p.c.

It will be noticed, from our previous remarks, that the epidemic of 1871 has been much more fatal. The statement is made, in connexion with this table, that this average mortality "evidently refers to the unvaccinated as well as the vaccinated; for, apart from the fact that no such distinction is made in the reports, it is much less than the ordinary death-rate for the former, and much more than the average mortality among the latter. At the London Small-pox Hospital, during a period of fifteen years, the average mortality among unvaccinated persons of all ages was 37 per cent., while among the vaccinated the average mortality was 6·56 per cent. It is evident, therefore, that in our community, although a large measure of protection is derived from vaccination, a still larger one—one twice as great, indeed—would be secured by universal and thorough vaccination."

Cases of accidental poisoning are exceedingly rare among us, but whenever they do occur a great popular outcry is raised and reverberated through the land—that druggists are insufficiently educated; that they are not properly restricted; that it is a relic of barbarism for Physicians to write prescriptions in musty Latin, etc. These, and a score of other ill-natured reflections are then indulged in at the expense of pharmacists and Medical men. It is too true that hitherto there has been but little, if any, legislation in some of the States to prevent untutored youth in apothecary shops (or drug-stores, as we usually style them) from compounding prescriptions. It is a universal rule, probably without exceptions in the larger towns for Medical men to prescribe only, the patient taking the prescription to the nearest apothecary, or to any he may prefer, be he good, bad, or indifferent, to have it put up. There has not been any law, beyond the druggist's good sense and regard for his own interests and reputation, to interfere with his delegating this duty to the merest tyro behind his counter. The best-regulated establishments of this kind are, of course, more particular, and one or two confidential clerks attend to all the compounding; but a law has long been needed to compel less conscientious employers to exercise greater care and caution. In the country towns the Physician is obliged, by the force of circumstances, to be Medical attendant, apothecary, and midwife—"three single gentlemen rolled into one." New York city is endeavouring to correct some of these hitherto existing evils by subjecting all dispensers of drugs to a rigid examination, and seems to be pretty thoroughly sifting the wheat from the chaff. Sooner or later Philadelphia, Boston, and Baltimore must follow in the same path, and set an example to the rest of the country. These examinations in our sister city have been going on uninterruptedly for several months past, and according to the provisions of the law, any druggist pursuing his calling after last Thursday (December 21) without the authorisation of the Board of Examiners, will be deemed guilty of a misdemeanour, and be subjected to fine and imprisonment. One great difficulty hitherto has been that the drug business has not been restricted to the graduates of colleges of pharmacy, of which there are several in the United States; but anyone who had sufficient capital, and often sufficient assurance as well, to open a drug store, could do so, though he had never attended a pharmaceutical lecture, manipulated a pill-machine, or stirred a pestle in a mortar. If it should occur to any charlatan who had devised a panacea for all human ills, that by throwing the cloak of respectability around him, and assuming the virtue of Professional regularity when he had it not, he could put money into his purse under the disguise of an apothecary, there was no law to intervene between him and the public safety.

As a general rule, drug stores in all our populous cities aim at ornament quite as much as usefulness. They are almost always situated at the intersection of streets, their brilliant globular show-bottles visible for half a mile, perhaps, in their many hues of red, violet, green, and yellow. Medicines in fancy phials on polished shelves form the substratum on which they are founded; but with the expensive plate-glass windows, tiled floors, frescoed ceilings, elaborate white marble and silver-plated soda-water apparatus, marble counters, show-cases stocked with fancy soaps, perfumery, scented sachets, eau de Cologne, cigars—rarely chewing-tobacco, however—tooth-brushes, and a hundred other valuable adjuncts to personal adornment, all of which address the eye conspicuously in the shop of our modern apothecary, one is almost induced to wonder sometimes whether Shakespeare's picture of the laboratory of the attenuated culler of simples of the days of the Capulets has any counterpart in the existing condition of things on this side of the Atlantic. The druggists are far from satisfied with the new order of things. Many of them approve of the purposes of the law, and hope for an exact adherence to its provisions and penalties; but it is exceedingly probable that the Legislature of New York will be obliged to make some slight changes in it to render it more effective. It is said, for instance, that it punishes those who compound Physicians' prescriptions, but does not prevent an apothecary from compounding and selling a remedy, or himself prescribing and making up his own prescriptions; nor does it suggest any penalty for the adulteration of medicines. The amount of medicine prescribed in a large city is prodigious, the estimate being that in New York alone at least a million and a half prescriptions are compounded annually, and this, too, with scarcely a fatal error. How much of this is wasted on imaginary ills no statistics will ever inform us.

A law to repress quackery and abortion is to be brought before the New York Legislature during its coming session. The spirit of reform seems to be earnestly at work in Medical politics as it is amid the greater bustle and turmoil of more impure political atmospheres. Committees are actively engaged in various Medical societies, both in New York and Philadelphia, devising plans for the purification of the Profession, and for the punishment of every form of criminal tampering with human life by men or women pretending to a knowledge or skill which they have acquired neither by education, experience, nor refinement. It is probable that all the Medical associations in New York city will unite in one solid front to present to the Legislature a statement of their grievances, and thus give them an insight into the amount of injury to health and life daily inflicted upon the public in every

form of quackery. Many of the members of that body are, however, as loose in their notions of propriety on these subjects as the veriest quacks themselves. The effect of politics on most of those who meddle with them in this country is to warp them from an exact adhesion to moral principle, and when this proposed Bill comes up for discussion, we may expect to find decided opposition to it from men who are themselves even below the level of the empirics they would protect. The Medical Profession in New York is fortunate in having a strong legal ally in whom they can confide, in the person of Judge Gunning S. Bedford, of the Court of Common Pleas, who honours the memory of his father and namesake, the late Professor of Obstetrics in the University of New York, by his careful regard for its interests. The Medico-Legal Society, which embraces some of the best Medical and legal talent of New York, recently appointed a Committee, on which this gentleman was associated with several prominent Physicians and Surgeons, to frame a Bill especially to correct defects in existing laws on abortion. It is suggested that this crime shall not in future be punished as manslaughter in the second degree, but as a felony, without limit as to the maximum amount of punishment. The following is the title and most important section of the proposed law:—

"An Act for the better prevention of the procurement of abortions and other like offences, and to amend the laws relative thereto.

"The people of the State of New York, represented in the Senate and Assembly, do enact as follows:—

"*Section* 1.—The first section of an Act entitled 'An Act relating to the procurement of abortions and other like offences,' passed May 6, 1869, is hereby annexed, and shall read as follows:—

"*Section* 1.—Any person who shall administer to any woman with child, or prescribe for any such woman, or advise or procure her to take, any medicine, drug, substance, or thing whatsoever, or shall use or employ, or advise or procure her to submit to the use or employment of any instrument or other means whatever with intent thereby to produce the miscarriage of any such woman, unless the same shall have been necessary to preserve her life or that of such child, shall, in case the death of such child or of such woman be thereby produced, be deemed guilty of a felony, and upon conviction shall be punished by imprisonment in a State prison for a term not less than four years."

One of our own judges has within a few days past called attention to the violations of law respecting advertisements of medicines for the cure of secret diseases, or for the cure of diseases peculiarly appertaining to females. By the Act of the Pennsylvanian Legislature, of March 16, 1870, "It shall not be lawful to print or publish advertisements of medicines, drugs, nostrums, or apparatus for the cure of secret or venereal diseases, or for the cure of those diseases peculiarly appertaining to females; . . . and every such person so offending shall be guilty of a misdemeanour, and shall, upon conviction thereof, be fined in any sum not exceeding $1000, or undergo an imprisonment not exceeding six months, or both or either, at the discretion of the Court. A second section of the Act prohibits the advertisement and sale of any secret nostrum or drug purporting to be for the use of females, for the purpose of preventing conception, or of procuring abortion or miscarriage, under the penalty of being deemed guilty of a misdemeanour; and, upon conviction thereof, to be fined in any sum not exceeding $1000, or be imprisoned in the county gaol not exceeding six months, or both, at the discretion of the Court."

Dr. Robert P. Harris, President of the Philadelphia Obstetrical Society, has recently published, in the *American Journal of Obstetrics*, a record of the cases of Cæsarian section, or gastro-hysterotomy, which have been performed in the United States alone. He has collected, in all, the statistics of seventy operations, only two of which were performed in New York, and three in Philadelphia. Of the Southern cases, there was a larger proportion among the blacks than among the whites of the whole country; and in some of the cotton-growing and sugar-producing States nearly every subject of the operation was a negress. Deformed pelves in this country are, as a rule, dependent on rickets, which, at one time, was regarded as far more prevalent among the foreign than the native portion of the population. The worst cases of deformed pelvis have certainly been hitherto found almost always in foreigners, dwarfs, and negroes. Of over 400 operations of gastro-hysterotomy performed since the beginning of this century (statistics of which, collected from all countries, have been published), 53 per cent have recovered. Of the seventy American cases given by Dr. Harris, 56 per cent. recovered.

GENERAL CORRESPONDENCE.

DR. TODD.

LETTER FROM DR. FORBES WINSLOW.

[To the Editor of the Medical Times and Gazette.]

SIR,—I hope you will do me the favour of correcting an error into which you have inadvertently fallen in your last number relative to an observation I made in my letter to the *Times* on "Alcohol as a Medicine." I did not say, as you represent, that "I had known many persons who cursed the day when he (Dr. Todd) entered their house, because he had recommended alcoholic drinks as remedies, and thus had sanctioned a course of tippling," etc. What I said was, that I once heard a distinguished member of the Profession make this remark to a number of Medical men; not that I said it. I regretted after my letter was published that I had quoted this statement, for I should be greatly grieved if by so doing I had given unnecessary and unintentional pain to any of Dr. Todd's friends or connexions.

I always had a great respect for Dr. Todd's teaching and practice, setting aside altogether the question as to his excessive stimulation in acute diseases. I believe he introduced into the practice of Medicine a *conservative* element which was productive of much good, and no doubt saved many lives. I refer particularly to his views as to the necessity of supporting the *vis vitæ* by the administration of generous nutriment, and that, too, in cases where formerly a lowering (antiphlogistic) treatment was usually adopted. I am, &c.

23, Cavendish-square, Jan. 23. FORBES WINSLOW, M.D.

UROSCOPY.

LETTER FROM DR. THOMAS STEVENSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last number, under the head "Uroscopy," it is stated that "the current number of the *British and Foreign Medico-Chirurgical Review* contains an able summary of recent contributions to our knowledge of the urine from the pen of Dr. Karl Hofmann, of Vienna. Dr. Hofmann is the author of an excellent guide to the examination of the urine, and is in every way a most reliable authority on the subject."

Without any wish to impugn the claims of Dr. Hofmann as an experimenter and a teacher, I venture to demur to this tribute of approbation to his paper, at all events in its English dress. The memoir in question is so full of misprints, errors of statement as regards facts, and wrong references, as to render it useless to anyone who either wishes to gain a knowledge of recent uroscopy from the memoir itself, or to use it for reference to the original papers. Either Dr. Hofmann has put forth a careless *résumé* of his subject, or, as I suspect, the translation of the paper has been entrusted to someone quite unacquainted with physiological chemistry.

In the sixteen pages to which the paper extends, I have discovered between thirty and forty errors. Passing by the errors in chemical formulæ and nomenclature, and mistakes in the figures relating to the quantities of various substances excreted, I find the utmost confusion between grains and grammes. Here is an instance (page 203)—"The quantity of the urine was much diminished (in the first case 500—600 c.c., in the second 485—870 c.c.); likewise the urea (on an average 1 grain to 3 grains, and 21·8 grains)." If this is at all intelligible, it scarcely represents with sufficient accuracy the statement in the original paper of Senator, of which Dr. Hofmann is giving an abstract, where it is stated that the total quantity of urine was 500—600 c.c., etc., and that the urea averaged 19·3 and 21·8 grammes daily. At page 205, again, there is an obscure and erroneous statement relative to the amounts of urea and uric acid respectively excreted in leucocythæmia. In this disease it is further stated that "lactic, formic, and acetic acid, as well as oxalic acid, were found, [he is speaking of urine] whereas Salkowski, from whose paper he is quoting, expressly states that he did not test the urine for oxalic acid.

I might multiply instances, but I have said enough, perhaps, to justify me in taking a different view of Hofmann's paper to that taken by your critic; and your readers will have been sufficiently cautioned against accepting the statements put forth in the article on "Uroscopy" in the *British and Foreign Medico-Chirurgical Review*. I am, &c., THOS. STEVENSON.

Laboratory, Guy's Hospital, January 23, 1872.

WILFUL MURDER.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you allow me to state the particulars of the concluding portion of a recent trial, not merely interesting to every Medical man on the grounds of opinion as to sanity, but involving a number of questions of extreme importance; at the same time pointing out the pitfalls in the relationship between patient and Physician—how easily a reputation may be lost without deserving. The Court intensely crowded (including ladies, and people of superior class), the judge in his robes, the sheriffs in theirs, other officials in Court dress playing with their swords, numerous wigs and gowns—all somewhat enliven the sombre scene. In the dock, attended by an untidy warder, sits a hard-featured, angular spinster, with fine dark eyes, a low forehead, and a rigid, repulsive chin—possibly rendered so by facial paralysis—(it is a shame to make the comparison, but the reader can readily imagine a resemblance to a certain *prima donna*)—neatly dressed in a velvet jacket trimmed with fur, tightly gloved, Christiana Edmunds (giving one the impression of a prim governess) appears altogether unconcerned. No nervous tremor nor twitching, not even a flush of the countenance or a fidgeting of her hands, as Baron Martin, pointing out the gravity of the crime, as well as the marvellous, astute ingenuity displayed in those wonderful letters malignantly attempting to injure others, sums up. The jury retire—she is removed—the spectators, divided in opinion, talk it over for an hour—until a stir and hum break, to her, the lifetime of agonising suspense. Every heart in Court for a moment ceases to palpitate, as the foreman, in a loud, firm voice, announces the unanimous, unqualified verdict of "Guilty!"

Rigid as a statue, the prisoner, calmly and collectedly receiving her death-warrant, makes a short statement as to the impulsive motive of crime, and wished to be tried on other indictments; her voice clear and steady, the words fluently expressed. It was an awful moment when the judge, assuming the black cap (somewhat resembling a folded dinner napkin), in faltering accents condemned her to be "hanged by the neck until she was dead, and may God have mercy on her soul." According to custom, being asked if there was any reason, such as advanced pregnancy, to defer execution, the unhappy lady in her frantic struggle for life, gladly jumping at the idea, without hesitation said she was so. The under-sheriff, for the first time in fifteen years, enacted the hideous farce of convening a jury of matrons, and twelve women of various grades of respectability volunteered. Next a Medical man was required, and, as the privileged insults of barristers are proverbial, none of the Practitioners in Court *singly* would undertake the responsibility. Eventually, on being summoned, Dr. Ryley, an experienced police-surgeon, attended the jury, and, sending for a stethoscope, was promptly supplied with a pocket-telescope! It is wonderful how soon minds adapt themselves; people began to forget where they were, feeling inclined to stamp impatiently for the next act of this thrilling drama: the judge quietly reads the *Echo;* the reporters crack jokes; and the barristers, talking pleasantly to their lady friends, remark that the Attorney-General's language, in opening the case against the "Claimant," had a very full flavour of the Old Bailey. What was going on behind the scenes Dr. Ryley has graphically told, and from other sources it is learnt that the convict, quietly submitting to the abdominal examination, piteously implored the matrons to support her plea. Finding the lie discovered, that the last card had failed, she realised the extent of her peril, and, turning from one person to another, begged them to do something, to do anything to save her. No feeling of remorse or repentance—the terrible dread of the hangman alone occupied her wretched mind!

The classics remind us that we are often saved from crime by the disgrace of others, and that there is no law more just than that he who plots death should perish by his own craft. As to the testimonies to hereditary insanity, how few families are there without some faulty Medical history! As genius is but seldom hereditary, so, conversely, insane parents may have clever children. The various phases of mental distortion associated with dysmenorrhœa, menorrhagia, puerperal mania, and the cessation of menstruation receive in this country ample consideration. In my humble individual opinion, clemency in this case would simply encourage secret poisoning, as well as the indulgence of every revengeful passion, especially by hysterical women. No one would be safe. In planning her diabolical schemes she leaves Wilkie Collins entirely in the shade; her curious, and at the same time faulty, mind could appreciate the difference between right and wrong where other people were concerned.

As if under the influence of mesmerism, benumbed with fear, the poor creature, following the warder like an obedient sheep-dog, again takes her place in the dock—her countenance a trifle flushed, her dress slightly disordered. The jury pronounce her not to be pregnant. She is removed from our gaze; but to one's dying day that scared, vacant face will be remembered.

There are many cogent arguments against capital punishment, and this case, in addition to its distressing phases, will greatly perplex the psychologist; yet equally there are many who will agree with the opinion of the judge and jury, that the sentence of the law for the protection of society should be carried out.

I am, &c., ONE IN COURT.

THE SANITARY CONDITION OF THE SOUTH AFRICAN DIAMOND-FIELDS.

LETTER FROM MR. CHARLES J. EGAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—This place from which I write (King William's Town) being situated on one of the direct routes to the diamond-fields of South Africa, now becoming well known in England, it may perhaps be interesting to some of your readers to know something of the character of disease met with here, and of the nature of the climate. I will therefore, so far as I am able, from a practice of fourteen years in this part of the colony, give you my experience on these subjects.

King William's Town, containing about 3500 inhabitants, is situated latitude 32° 52′ South, and longitude 27° 23′ East, about forty miles from the sea coast, and at an elevation of 1300 feet above the sea.

The following meteorological observations, taken by myself, during a period commencing April 1, 1869, and down to the present date, November 30, 1871, will give some idea of the nature of the climate, but, of course, cannot apply to the diamond-fields, which are situated about 400 miles N.N.W. of this place, and at a much higher elevation above the sea.

I am sorry, now, that I did not commence these observations earlier, but the want of proper instruments prevented my doing so; they have been taken with self-registering thermometers and a standard mercurial barometer. I also make observations, twice daily, with wet- and dry-bulb thermometers, with calculations taken from "Glaisher's Tables." So that I hope, in a few years time, to construct useful tables of the meteorology of this place.

	From April 1 to Nov. 30.		
	1869.	1870.	1871.
Highest reading of thermometer in sun ...	130°	134°	135°
" " in shade ...	99	96	98
Lowest reading of thermometer in shade ...	30	29	28
Mean temperature in shade	60	62·4	61·7
Greatest range of the thermometer in shade in 24 hours	45	41	48
Least range of the thermometer in shade in 24 hours	2	5	4
Mean range of thermometer in 24 hours ...	24	21·9	23·2
Highest reading of barometer	28·95	28·93	28·96
Lowest reading "	27·97	27·76	27·94
Mean height "	28·48	28·46	28·43

During the summer months (December, January, and February) we are subject to heavy thunderstorms, the prevalent winds being south and south-east, with occasionally hot winds from the north and north-east. These north winds are most oppressive, but seldom last long. June, July, and August—the winter months—are usually very dry, with strong winds from the west and north-west; cold and bracing. During spring (September, October, and November) we have usually broken weather, with prevailing winds from the south and south-west. The autumn (March, April, and May) is also usually broken weather, with rain and thunderstorms, and the wind variable. Observations of the rainfall have been taken for a period longer than the above, and are as follows:—

	1869.	1869.	1870.	1871, to Nov. 30.
Rainfall, in inches	31·08	23·41	27·85	22·51
Days on which rain fell	94	111	133	103

The months in which most rain falls are November and February.

With these few observations on the character of the climate, I will now enter on the subject of disease. Fevers, which form so large a portion of Medical practice at home, are seldom met with in this part of the colony. During my practice here since 1857 I have met with only two cases which presented the characters of true typhus, and these originated from a cause

that may be considered as ochlesis, joined with much mental disturbance. The cases were as follows :—Two sisters (seamstresses) lived together in lodgings, where their bedroom was only about eight feet square by six feet high, and situated in a very low, hot part of the town, and in the vicinity of cattle-yards. One of these girls was engaged to be married, and everything was prepared for the wedding, when it was suddenly broken off, and stories very defamatory to her character were falsely circulated. This affected her so much that she was seized with all the symptoms of typhus fever, well-developed maculæ appearing on the fifth day, with high delirium and much hysterical complication. She died on the tenth day from the commencement of the attack. On the day following her death, her sister, who attended her during her illness, and was very much affected at her death, was also taken by the same form of fever, and died on the ninth day, with similar hysterical complication and similar well-developed maculæ. These are the only cases I have seen, since I came to the colony, that I could possibly class as cases of typhus fever.

Sporadic cases of typhoid fever sometimes occur—enteric fever—with rose-coloured maculæ appearing about the tenth or twelfth day of the disease, with crepitus on pressure in the cæcal region, and accompanied with diarrhœa. I have generally been able, in those cases that I have met with, to trace their origin to the use of water contaminated with fæcal matter.

In the last two years, during which time water has been supplied to the town by an aqueduct leading the water from a river three miles above the town, and distributing it in iron pipes, I have met with much fewer cases of this disease. Before the present waterworks were in operation the cases of typhoid fever were more numerous; thus, in 1867 there were in my practice thirty cases, with three deaths; in 1868 eleven cases, with one death; in 1869 five cases, with two deaths; in 1870 five cases, with no death; and in 1871 three cases, and one death. From this it will be seen that the new supply of water has much improved the health of the town in regard to this particular form of disease, and I believe that this fever could be altogether kept out of the community by ordinary precautions—precautions which are very difficult to take in long-established towns at home; but in a new settlement like this it could and ought to be followed out; but, unfortunately, it is as difficult here as it is at home to instil the common principles of hygiene into corporations or other public bodies.

During the year 1862 fifteen of the cases of typhoid fever occurred in the one part of the town, within a period of three months, and among the poorer class of the population; and the water used by them was taken from a part of the river contaminated by sewage, slaughter-houses, and clothes-washing. (All the washing of clothes is done here by natives at the river.) Of these cases seven were attacked with cerebro-spinal arachnitis during the course of the fever, and this complication appeared to me to be caused by exposure to the heat of the sun, amongst children going out without covering to the head while incubating the disease.

Typhoid fever in this country presents no difference in character from what it does at home. It follows the same course in every respect, and can nearly always be traced to the same cause—viz., contamination of water with fæcal matter.

The treatment I have found most useful for ordinary cases of the fever is two grains of quinine, twenty minims of dilute sulphuric acid, and ten drops of laudanum every four hours, complications being treated as they may arise. I find that the sulphuric acid is generally sufficient to control any diarrhœa that may occur, but in some cases I have used a mixture of acetate of lead and acetic acid with morphia.

A great deal of this fever is now prevalent at the diamond-fields, and it is a thing that must be expected there. Dr. Atherstone, of Grahamstown, who has paid much attention to geology, and visited the diamond-fields especially to examine the geological formation of the country, wrote a letter, on his return, to one of the local papers, pointing out that typhoid must arise there, if proper sanitary arrangements were not instituted; because the chief place—"De Toits Pan"—where diggings were being carried on, and where a population of over 15,000 persons were congregated, was geologically formed as a basin (or Pan), of primative rock, filled with drift and alluvial deposits. This pan is oval, about 1000 yards in one diameter, and 500 in the other. It is in this deposit and on the hills surrounding it that the diamonds are found, and the only water for drinking or other purposes is obtained from wells sunk through it. This water is only derived from the rainfall of the Pan or basin, and in soaking through the alluvial deposit must wash along with it all the fæcal matter and slaughter-house refuse of 15,000 people accumulated on the surface of and around the "Pan"; and I agree with Dr. Atherstone in thinking that the percolation of the rainfall through the alluvial deposit cannot remove the contamination derived from the immense quantity of fæcal and other matter strewn over the surface.

De Beer's and New Rush are geologically formed much the same as "Du Toits Pan," and are becoming equally unhealthy. The forewarnings of Dr. Atherstone are now becoming facts, and typhoid fever is very prevalent and fatal at these two parts of the fields; and I fear that, before the summer is over, many persons will fall victims to the want of sanitary arrangements. I have seen some cases in persons returning from the fields—and they were pure cases of typhoid fever—and there did not appear to be anything of a malarious nature in them.

The filthy state of the camp has been described to me by persons returning from the fields, and they report that human ordure is scattered everywhere over the surface (no arrangements having been made for its removal); and along with this are the carcases of oxen dead of lung sickness (pleuro-pneumonia), and the refuse of beasts slaughtered for food.

I enclose the following extracts from the local papers to give some idea of the utter want of sanitary arrangements, and the present state of health at the camps :—

"*Sanitary.*—The sanitary condition of the various camps in the neighbourhood requires the immediate attention of the Government. Any delay just now might result in a serious calamity. As a preparatory step a sanitary inspector has been appointed, but as yet nothing whatever appears to have been done with a view to the removal of these impurities, which so injuriously affect the health of the diggers. In some parts of the camps the effect of effluvia of putrid matter must necessarily give rise to various forms of fever, unless active steps are adopted by the Government to check the evil. Sanitary regulations should be framed and rigidly enforced at once."

"*Let the Dead Bury the Dead.*—We suppose this to be the motto of the sanitary authorities—if there be any such authorities—at De Beer's and New Rush, for on Wednesday last, at high noonday, rotten in the blazing sun, there lay in the middle of the camp there, stiff and stark, with clenched fingers, lips drawn up so as to reveal the ivory-whiteness of the teeth, and with flies clustering about his eyes, mouth, and nostrils, the body of a coloured man who had died, or was said to have died, early in the night. His 'mother' was at work close by, taking no more notice than if it had been the carcase of a dog, and all that passers-by did was to say, 'it was a shame—somebody ought to put the corpse out of the way,' but no one seemed to care to stir a step to remove the ghastly object from the public gaze."

"*One Hundred Persons Dead in a Day.*—From the diamond-fields the most lamentable accounts are being received of the increase of the fever and the terrible mortality among the diggers. On one day it is said that no less than a hundred persons had died at the fields. The average number of deaths is computed to be about twenty-five daily. From one claim we are told in the last week five corpses were conveyed at one time in a Scotch cart. Many of the diggers, it is said, are leaving the fields to return to their home till the winter sets in."—*Burghersdorp Gazette.*

Besides typhoid fever, a great deal of dysentery and diarrhœa are also present, and the absolute want of all kinds of vegetable diet must also lay the foundation of much disease. As typhoid fever is a disease that can be prevented by proper sanitary arrangements, the present unhealthy state of the fields would not have arisen if ordinary precautions had been taken; but there being no proper government when the place was first occupied, and everyone who went there being altogether taken up with digging and seeking for diamonds, all such things as sanitary arrangements were totally neglected, and now they are suffering from that neglect.

Fevers of malarious origin are unknown here as a disease arising in the colony, and the only cases of the kind that I have seen were in persons who had contracted the disease in other countries.

Almost every year, either in spring or autumn, influenza is very prevalent here—coming on quite suddenly, with intense headache, pains in back and limbs, general prostration, and fever, accompanied sometimes with coryza or bronchitis. At present there is a severe epidemic of this disease here—much more severe in adults than in children. I usually administer large doses of carbonate of ammonia (ten grains), spirits of chloroform, and camphor mixture, which I find to be very successful—not shortening the duration of the disease, but relieving the headache and muscular pains. The disease

usually lasts four or five days, and leaves the patient very prostrate and weak for some time after. In some cases, which have commenced as pure influenza, a sudden change has taken place, and severe diarrhœa has set in, relieving altogether the acute headache, but leaving the patient even weaker than if the disease had followed its usual course. In such cases I have found the most useful treatment to be a mixture of dilute sulphuric acid and tincture of opium. I have remarked that in those years in which influenza is most prevalent, there is an unusual amount of disease amongst horses (known here as "horse sickness"). This disease, in my opinion, is a form of suffocative catarrh, or congestive bronchitis. It is rapidly fatal, horses dying in from one to ten hours from the first appearance of the disease. I have known cases of horses being attacked with the disease while in harness, and dying within an hour.

The breathing of the animal during the attack is very short and difficult, with much discharge of mucus from the nostrils, but without much cough (indeed, I think cough is usually absent), and the animal appears to die suffocated. In every case that I have seen opened after death, there has always been present much congestion of the trachea and bronchial tubes, and always, invariably, great effusion into the pericardium. No treatment that has been tried has been of any use in this distemper. It is most prevalent in grass-fed horses, seldom attacking those in a stable, unless they have been taken out for night-work. But when a stable has been full of horses (say over four), and some of these are out at work, and one left alone at night in a stable which is usually full, that animal in such seasons is very apt to be found dead in the morning.

In those seasons in which this distemper is so virulent among horses, a large number of cases of disease of the throat and respiratory organs occur—such as croup, cynanche pharyngea, and tonsillitis—and these are very fatal amongst children.

I am, &c.,

CHARLES J. EOAN, A.B., MR.C.S.E.

December 10, 1871.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 9.

MR. CURLING, F.R.S., President, in the Chair.

DR. WILLIAM OGLE read a paper on a "Case of Complete Recovery after Removal of the Body of a Cervical Vertebra." In this paper a case was narrated, of which the following were the chief points:—A man, after suffering for some months from sorethroat, became out-patient at St. George's Hospital. It was found on examination that some bone was exposed at the back of the pharynx, but the patient suffered so little inconvenience from this that he could not be persuaded to become in-patient. The man's attention having been directed to the exposed bone, he got into the habit of fidgeting it about with his fingers, and at last loosened and removed it himself. On maceration, the piece thus removed was found to consist of the antrum of one of the cervical vertebræ and a small portion of the antrum of a second one. After remaining for some months out-patient, the man was persuaded to enter the Hospital. He was placed on his back, and his head fixed; and remained in this position six months. During this time he expectorated numerous spicules of bone, and what appeared to be portions of fibro-cartilage. The lesion eventually healed completely; and the man at the present time—two years since the lesion—is able to occupy himself with the heaviest farm-labour, and to amuse himself with field-sports. There is no visible deformity of the neck, nor any other sign of what has occurred except a slight stiffness in rotating the head. The piece of bone was exhibited.

MR. HENRY LEE thought it would be highly important to know more of the early history of the case; and believed that the explanation of its successful issue was to be found in its syphilitic character. In syphilitic cases, in which the periosteum was primarily and for a long time affected, it was not unusual to see a great development of new bone in the thickened membrane, and he conceived that in this case such thickening and eventual ossification might have extended to the bodies of the adjacent vertebræ, and might have afforded support to the interrupted column. If the disease of bone had been of a strumous character, no ordinary powers of repair could have brought about recovery.

MR. BRODHURST thought Mr. Lee's explanation insufficient. He passed his finger into the space from which the dead bone had been cast out, and he felt no trace of any new formation.

The PRESIDENT asked whether Mr. Lee meant to say that he thought there had been syphilitic disease of bone, leading to repair of bone.

MR. HENRY LEE explained that he thought there had been syphilitic lateral periostitis leading to ossific deposit in the thickened periosteum.

MR. SAVORY thought it was not necessary to determine between scrofula and syphilis. Mr. Lee's observations had struck him with much surprise; for if there was any dyscrasia which especially hindered the reproduction of bone it was syphilis.

Several of the Fellows addressed questions to Mr. Lee intended to shake his position, to which he nevertheless adhered; and much amusement was produced by the brisk sort of cross-examination to which he was subjected.

DR. JOHN W. OGLE and MR. HENRY LEE communicated a case of Tracheotomy in which the Tube, having become detached from its Shield, escaped into the Trachea, and was Removed by a Second Operation fourteen months afterwards. The patient, a man aged 32, had been the subject of typhus fever in 1865. He recovered, but never afterwards felt thoroughly well, and about a year subsequently had an attack of laryngitis and bronchitis. Tracheotomy was performed, and the patient continued to wear the tracheotomy tube for three years, when the shield became detached. It was improperly reunited to the canula, and in another year's time it was again detached, and on this occasion the canula slipped into the trachea. A few weeks after this the patient was placed under Dr. Ogle's care in St. George's Hospital, suffering from great dyspnœa, and having the sensation as if the tube were situated on a level with the upper part of the sternum. Auscultation failed to help in deciding the position of the tube, and the patient refused to have chloroform administered with the view of search being made for it. He then left the Hospital (September, 1870), and continued to go about, suffering from dyspnœa and irritation about the windpipe, until his symptoms became more urgent, and he was obliged to come to the Hospital again on November 5 last. He said "he had coughed the tube up into the throat, and could feel it there." No time was lost. The patient was at once placed under the influence of chloroform, and as he lay upon his back tracheotomy was a second time performed, and two eroded portions of metal were taken by means of curved forceps from the trachea. The pieces were almost the length of a tracheotomy tube, and gave origin to the idea that the original tube had been bivalved. This, however, upon inquiry turned out not to have been the case. The pieces of metal had been eroded into their present shape while in the trachea. The pieces were shown to the Society.

A second case, which some years ago had occurred under the observation of Mr. Lee, was related. In this instance a boy had swallowed a fourpenny-piece. This was expelled without operation through the glottis during a fit of vomiting. In the observations made attention was drawn to the different modes of treatment likely to be required in cases of smooth or round bodies in the trachea, as in the last-mentioned case, and cases in which pointed or rough bodies had to be removed, as in the instance first recorded.

The PRESIDENT thought the rule of Surgery was clear—that a foreign body in the trachea should be extracted by operation.

MR. POWER said that smooth bodies, even of considerable size, might pass out by the natural passages. He described the case of an Irishman who had a pebble in his larynx. By putting the man on his face on a table, with his head low, and giving him a slap on the back, the pebble was immediately ejected.

MR. COUPER mentioned a child who was brought to the London Hospital with a foreign body in the trachea. The Surgeon who saw the case deferred operation, on account of the absence of urgent symptoms; but a paroxysm of dyspnœa came on in his absence, and he (Mr. Couper) opened the trachea at the request of the House-Surgeon at a time when death seemed impending. The foreign body was a bean, and it passed up and down behind the tracheal opening during the respiratory efforts, but with some difficulty was seized and extracted. The patient died of pneumonia.

MR. HOLTHOUSE mentioned having once permitted a pill to slip into his own larynx, and having ejected it at once

and without any trouble. He also showed the pieces of a tracheotomy tube which he had himself extracted, under circumstances similar to those detailed in the paper under discussion.

Mr. Thomas Smith pointed out that children sometimes got acidulated drops into the trachea, and that these might safely be left to dissolve. Among other foreign substances that he had known to lie in the air-passages was a common dress-hook, the loops of which were directed downwards, while its bent extremity was hung upon one of the vocal cords.

Other cases were also mentioned by Dr. O'Conner, Mr. Henry Lee, and the President.

Mr. Brudenell Carter thought that cases of the detachment of a tracheotomy tube from its shield were to be prevented by using a well-made instrument. Instead of the tube and shield being imperfectly soldered at their junction, they should, when intended to be worn permanently, be made out of a single piece, and even electro-gilded at the angles, to protect the metal against chemical corrosion.

OBITUARY.

ROBERT WADE, F.R.C.S., etc.,

Died at his house in Dean-street, Soho-square, on Thursday, January 16, at the advanced age of 84. His father was a brewer at Woodbridge, in Suffolk, near which place Robert was born on November 23, 1788. He received his early education at a neighbouring school, and having been duly apprenticed, came to London when almost 20 years of age. He had expected that he would at once enter to lectures and Hospital practice, but his father having become involved in difficulties, young Wade was thrown upon his own resources. Of a robust frame, strong will, and of a hopeful disposition, he looked to the future with confidence. Like many other members of our Profession who have risen to distinction, his earlier years were those of self-denial, hard work, and scanty income. He became assistant to one of the "top apothecaries" at the West-end, and for some years was a veritable drudge. He made up all the medicines, attended most of the night cases, and all the lower class of midwifery. At this time the unqualified Medical assistant was regarded more in the light of a domestic servant than a gentleman. Wade's lot in this respect was of the "common." At length, after eight years of incessant labour and great thrift, he had saved sufficient to pursue his studies, and entered in 1817, we believe, to St. George's Hospital. He passed the College of Surgeons in 1819, and the Apothecaries' Society about the same time. He again became an assistant, but under very different circumstances. The office of Apothecary to the Westminster General Dispensary becoming vacant, Wade become a candidate for it, and was elected by a small majority. He fulfilled the duties of his appointment with great credit to himself and benefit to the institution for some years. About 1828 he commenced practice on his own account at the house in which he resided till his death, 68, Dean-street. For some time he eked out a somewhat scanty income by taking pupils. The Medical students of that day were less orderly and correct than those of the present time. I have heard Wade relate many of the annoyances to which he was subjected by his young friends; but some of his pupils have reached to high and deserved distinction. I can bear testimony to the regard which some of his old pupils had for the good old man even to the last; and they always spoke of him with affectionate respect. Wade, on his retirement from the office of Apothecary to the Dispensary, was unanimously elected Surgeon to the institution, and this office he held to the day of his death, performing his duties to the last with a fidelity and punctuality which contrast favourably with the attendance of many Surgeons to Hospitals and Dispensaries in the metropolis. Some years since he was presented by the governors with a handsome piece of plate, in recognition of his services. The name of "specialist," when he took the office of Surgeon to the Dispensary, was all but unknown, but circumstances drove him, as it were, to choose a particular line of practice. Amongst the crowd of patients which attended on his "days," numbers were affected with stricture of the urethra in all its forms. He soon found that some of those cases of the most intractable kind could not be successfully treated by simple dilatation, and he directed his mind to discover some means by which they could be treated with safety. Shortly before the system of treatment carried on most extensively by Sir Everard Home had fallen into discredit, in consequence of the disastrous results ensuing from it. Home had recourse to the nitrate of silver, and, no doubt, was very successful in many cases; but he carried his practice to a degree of heroism which eventuated in its downfall. Mr. Whateley, after the failure of the lunar caustic, practised and advocated the use of the potassa fusa in cases of stricture of the more intractable kinds. Whateley had but a limited success, and, at his death, no one seemed desirous to become his successor. Then a new system of treatment was practised by some Surgeons of more or less eminence, Guthrie and Stafford being foremost amongst them. This consisted in what was termed internal incision: a bougie, armed with a knife, was inserted into the urethra, and when the seat of obstruction was fairly reached, the knife, being worked by a spring at the handle of the instrument, was protruded, and the stricture freely divided. For a time all went well, but cases of severe hæmorrhage were common, and fatal results occasional, so internal incision lost ground, and died, I believe, with Mr. Stafford, who, notwithstanding all its dangers and drawbacks, contended to the last that it was, on the whole, the most efficient and the safest that could be employed. Wade had opportunities of trying these plans of treatment, and, after a long and anxious trial, came to the conclusion that Whateley's was the best remedy. But he was soon convinced that the caustic potash had been used too freely by Whateley, just as the lunar caustic had been too freely employed by Home. He accordingly, in the most obstinate cases of stricture, commenced his use of the caustic potash in very minute quantities, and gradually increased them. He soon found that all the benefits of this agent could be obtained without resorting to the more powerful, and sometimes dangerous, "doses" employed by Whateley. Always cautious and painstaking, he hesitated long before he gave his views to the Profession. But at length, fortified by an experience of several hundred cases in public and private practice, he ventured to stand forth as the advocate of the use of that remedy in cases of irritable and intractable stricture. And here, in justice to the memory of my old friend, I must attempt to remove a misconception which prevailed, that he invariably resorted to this remedy. As I had the pleasure and privilege of seeing every work he published through the press, I am bound to say that no Surgeon ever rode his "hobby horse" more tenderly and with more skill. Often has he said to me, "The potassa fusa is not the main power which I rely upon in my battle with cases of stricture. Far from it; most cases of the disease can be successfully treated by careful and persistent dilatation; but I have found such extraordinary results from the employment of small quantities of the caustic potash in cases of irritable and intractable obstruction, that I should fail in my duty if I did not use it." I must confess that I believe the conclusion he arrived at was sound and practical, and that, by his consistent and persevering advocacy of this remedy, he has snatched a valuable agent from oblivion, and added a page to the history of conservative Surgery. And here I may diverge for a moment in this narrative, to say that I consider Wade had inestimable advantages over the so-called "specialists" of the present day, and these were his early training, his vast experience as a Surgeon in general practice, and his good knowledge of pathology and therapeutics. He did not, as the tanner in the fable, think that there was "nothing like leather," but he resorted to "leather" when other means of "defence" had failed. His courage and consistency never deserted him. With his usual energy he denounced in unmeasured terms the "perineal section" of Syme. Can it be said that he was wrong in that opposition? But he was not a bigoted antagonist. When he found that he was wrong, no man was more ready to acknowledge his error. One instance will suffice. Mr. Thomas Wakley, it is well known, proposed and practised a most ingenious plan of treating stricture by gradually enlarged tubes. In one edition of his work Mr. Wade strenuously opposed this plan, believing that it would cause laceration and danger; but he felt bound to satisfy himself on this point, and after some trial of the plan, he was convinced that in certain cases it might be employed with safety and advantage. What did he do? In the very next edition of his work on stricture, he not only acknowledged his error, but actually gave a lithographic illustration of Mr. Wakley's instruments, and spoke of them with qualified approbation. This is to his honour: for the journal which represented the interests of Mr. Wakley had attacked him with a rancour which was neither just nor justifiable. I say this from a knowledge of the facts. Fortunately in these days, when the "balance of power" is more righteously adjusted, no such system of persecution could be successfully maintained. I became acquainted with Robert Wade in consequence of attending a course of lectures on

pathology delivered by him. at the Little Windmill-street School in 1834. I was on intimate terms with him, and for many years spent my Sunday evenings at his house. In his "happier hour" the man came out enthusiastically an admirer of Shakespeare and Byron; it was a delight to discuss with him the merits and beauties of these great masters of English literature. No man had a greater appreciation of them than Robert Wade. He took few holidays—"work to him was leisure;" but he annually rented a house at Hampstead for a "little change." I was his frequent visitor on these occasions, and amid the quiet lanes, the fertile fields, the wooded heights of that suburban "paradise," I have walked and talked with him and his family. The pleasure of these "outings" I shall not easily forget. I know your tourists on the Rhine and the Moselle, your Alpine climbers, and your yachters may smile at the "Cockneyism" of such scenes; but they must not, or ought not, to forget that those scenes were dear to men like Coleridge and Leigh Hunt, and have been immortalised by the pictures of some of the greatest landscape painters of the present and a past age. A great appreciator of everything beautiful in nature, and a lover of the arts, he was anxious to obtain some works of the late William Hunt, that marvellous portrayer of fruits and flowers. It was not, however, until 1851 that his means allowed him to indulge in what he then regarded as an expensive outlay. This was done with much caution and misgiving. The drawings by this distinguished artist at the period named were but one-tenth of the value which they now realise at public auction. In an interview with Mr. William Vokins, who at this time had the majority of Hunt's works from the easel, and while contemplating a drawing of a "Bird's Nest," the price of which was but twenty-two guineas, Wade expressed his great desire to purchase, but added—"I am but a poor Surgeon, and though I should like it much, I hardly feel justified in doing so; but tell me honestly, should it so occur that I am unable to retain it, is it likely I may get my money again?" Being perfectly assured on this point, it was bought, and was the nucleus of a collection of drawings of fruit, flowers, etc., entirely by this master—not large, but admitted to be unique in quality by everyone acquainted with the matter who has seen them, either on his walls or at the loan exhibitions, to which he was at all times a willing contributor. The possession of these drawings led to his acquaintance with the artist, and he became his Medical adviser, attending him in his last illness. It would be a misfortune, I think, if this splendid collection should be lost to the nation. Its proper place would be at the South Kensington Museum, amongst the productions of those who have shed a lustre on British art. His contributions to Medical literature were:—"Stricture of the Urethra: its Complication and Effects; a Practical Treatise on the Nature and Treatment of those Affections;" "Conservative Surgery of the Urethra—on the Treatment of Stricture;" "Exfoliation of Anterior Arch of Atlas," *Med.-Chir. Trans.*, 1849. "Remarks on Strangulated Hernia, reduced *en masse*, with a case in which an Operation was Successfully Performed," *Lancet*, 1845; "Treatment of Permanent Stricture of the Urethra," *Medical Times and Gazette*, 1851; with other contributions to Medical journals.

In all the relations of life, as husband, father, friend, or Medical adviser, Robert Wade was most exemplary. He literally "died in harness." He rose on Tuesday morning in his usual health, saw patients until one o'clock, was seized with apoplexy at two, and breathed his last at four.

J. F. C.

CHARLES FERNELEY, M.R.C.S. Eng., L.S.A., L.R.C.P. Edin.

We have to record the death of Dr. Ferneley, which took place at his residence, Grantham, on Saturday, December 23, 1871, in the 61st year of his age. He was a student of St. George's Hospital, and in 1832 commenced practice at Denton, near Grantham, which village he left on the Royal South Lincoln Militia, of which he was Surgeon, being sent into garrison duty at Chichester, and subsequently at Portsmouth and Cork, during the Crimean war. On the regiment being disembodied, he settled at Grantham, retaining the office of Surgeon until his death. He held the post of Medical Officer for the Denton and afterwards the Grantham districts of the union for a period of thirty-two years; he was also Surgeon to the borough gaol.

Dr. Ferneley was an ardent Freemason, and rose to a very high rank among his brethren. He was a diligent student of masonic lore, and published some remarks on "The Origin of Speculative Freemasonry." He devoted considerable time to the study of the theory of Medical science, and to the pursuit of science generally. He also published some lectures on "The Nutrition of Plants," and contributed various papers to the *Medical Gazette* and other journals.

His death is deeply regretted by his fellow-townsmen and regiment, the officers of which recently presented him with a handsome piece of plate in recognition of his valued services.

SURGEON V. M. McMASTER, M.D.V.C., 78th Regt.

This distinguished and highly esteemed military Surgeon died in his quarters at Belfast on the 22nd inst., rather suddenly, from valvular disease of the heart, from which he had long been a sufferer. Surgeon McMaster entered the service on March 27, 1855, as Assistant-Surgeon of the 78th Regiment, with which he served in the Persian war in 1857 (medal and clasp). He afterwards went with his regiment to India on the outbreak of the mutiny. He served with Havelock's column at the capture of Cawnpore, and during the advance into Oude. He was present at the relief of the Residency of Lucknow, and was wounded during that exciting episode. He also accompanied Outram's force during the final capture of Lucknow, the expedition into Rohilcund, and capture of Bareilly. For his services during the Indian mutiny campaign he obtained a medal with two clasps and the Victoria Cross. The latter distinction was voted to him by the universal acclamation of the men and officers of the regiment, by whom he was esteemed with a fervour almost amounting to devotion. On promotion in March, 1868, he was for a short time removed from the regiment in which he had gained so many friends. The separation was not for long, and he has now terminated his brilliant and useful career among those who knew and loved him most, and who now, with many a tear, will have the sad pleasure of placing his honoured remains, with regimental honours, in a soldier's grave.

NEW INVENTIONS.

ROBUR.

(*Arthur, Monroe, and Co.—Office*, 1c, *Brecknock-street, N.W.*)

Under this emphatic title we have a spirit, which comes to us with the private recommendation of a Belgravian Practitioner who is well qualified as a judge in such matters. This spirit consists, of course, of strong alcohol; but it is prepared and compounded in a way which is intended to bring it into competition with brandy, whisky, and the other spirits in popular use. It contains the active principles of tea and of fruit, the nature of which has been communicated to us, and is quite harmless. It is claimed for it, not that it shall be used instead of wine or beer, but instead of the *schnaps* or *petit verre*, or hot grog, or "cold without" of those who are already in the habit of using spirits. The combination of tea and fruit gives a softness to the taste, and it is suggested that they act in a complementary manner to the spirit, and tend to refresh the nervous system. Many people, when fatigued or exhausted, like to "lace" (this is the technical expression) their cup of tea with a teaspoonful of spirits; therefore, they may like spirits flavoured with tea, or may feel it convenient to have their tea and brandy in one bottle. Anyhow, the spirit seems wholesome, and is cheap, and may fairly compete with other articles of its class.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 23rd inst., viz.:

Bower, Augustus Edward, L.S.A., Nantwich, Cheshire, student of King's College.
Brittin, Frederic George Morris, L.S.A., Thornhaugh Wansford, Northamptonshire, of the London Hospital.
Chambers, Eber, Ryde, Isle of Wight, of St. Bartholomew's Hospital.
Deeping, George Davidson, L.R.C.P. Lond., Newark-on-Trent, of Guy's Hospital.
Dempsey, Meldon Joseph, L.S.A., Charterhouse-square, of St. Bartholomew's Hospital.
Dobie, Stanley Locker, Irthington, near Carlisle, of St. Mary's Hospital.
Dunstan, Robert, L.S.A., Liskeard, Cornwall, of Guy's Hospital.
Ferris, John Edward Charnock, L.S.A., Cornwall-road, Bayswater, of St. George's Hospital.
Garrett, John, Salisbury, of the London Hospital.
Godfrey, Amiraux, Jersey, of St. Bartholomew's Hospital.
Johnstone, John Lawson, Liverpool, of the Liverpool School.

Kelly, Michael James, Talbotstown, Baltinglass, co. Wicklow, of the Dublin School.
Langdale, Henry Marmaduke, L.S.A., East Hathley, Sussex, of Guy's Hospital.
Llewellin, George Joseph, L.S.A., Haverfordwest, of Guy's Hospital.
Moseley, William Arthur, L.R.C.P. Edin. and L.S.A., Nassau, Bahamas, of St. Bartholomew's Hospital.
Pigeon, Henry, L.R.C.P. Edin., Redland, of the Bristol School.
Pike, William Royston, L.S.A., Leicester, of St. Thomas's Hospital.
Salmon, Alfred Lidgey, L.S.A., Truro, Cornwall, of St. Bartholomew's Hospital.
Sarjant, Josiah John, L.S.A., West Ferry-road, Isle of Dogs, of the London Hospital.
Shearman, William Millar, Gateshead, of the Manchester School.
Steele, Russell, L.R.C.P. Edin., Reigate, Surrey, of University College.
Sylvester, Kuwan Francis, L.R.C.P. Edin. and L.S.A., Trowbridge, Wilts, of St. Bartholomew's Hospital.
Taylor, Herbert, Kennington-park-road, of St. Bartholomew's Hospital.
Underhill, Charles Edward, B.A. and M.B. Cantab., Tipton, Staffordshire, of the Edinburgh School.
Wallis, Edward Darby, L.S.A., Bodmin, Cornwall, of University College.
Woodward, George, Bicester, Oxon., of St. George's Hospital.

The following gentlemen passed on the 24th inst., viz. :—

Barton, James Edward, Redcliffe-street, Brompton, student of the Westminster Hospital.
Buchanan, Arthur, The Spa, Gloucester. of Guy's Hospital.
Corrie, Alfred Thomas, L.S.A., Plymouth, of St. Bartholomew's Hospital.
Edwards, John Ellis, L.S.A., Aberdare, Glamorganshire, of Guy's Hospital.
Hues, James John, Handsworth, Staffordshire, of the Birmingham School.
Jackson, James Elwes Corrie, North Reston, Lincolnshire, of the Charing-cross Hospital.
Jones, Lewis Herbert, Ruthin, Denbighshire, of the Birmingham School.
Marsh, Walter Alfred, L.S.A., Dante-road, Newington, of Guy's Hospital.
Procter, Thomas, Wigan, of St. Mary's Hospital.
Pugh, Edgar Joseph, L.S.A., Waltham Abbey, of University College.
Rae, William, King's Lynn, Norfolk, of King's College.
Rix, Benjamin, L.S.A., East Meon, Hants, of Guy's Hospital.
Rosten, William Martin, Rushall, Walsall, of the Birmingham School.
Thornton, Philip, L.S.A., Norwood, of the London Hospital.
Tudge, James McDougall, L.S.A., Hereford, of Guy's Hospital.

Five candidates were referred in Surgery, five in Medicine, and eleven were altogether referred to their Professional studies for six months.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 18 :—

Dempsey, Melden Joseph, Charterhouse-square.
Ferris, John Edward Charnock, St. George's Hospital.
Hammond, William, University College.
Marshall, Lewis Walter, Southville, Bristol.
Morris, Malcolm Alex., Tavistock-road, Westbourne-park.
Odell, William, Newport Pagnel, Bucks.

As Assistants in Compounding and Dispensing Medicines :—

Brewster, William, Kimbolton Hunts.
Shone, John, Union-square, Islington.

The following gentlemen also on the same day passed their first Professional examination :—

Clague, John, Guy's Hospital.
Kingcombe, Alfred Partridge, Guy's Hospital.
Welch, William John Joseph, Queen's College, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ATKINS, T. L. J., late Dispenser to the Ebbw-vale Steel, Iron, and Coal Co.—Dispenser at the Newport Infirmary.

BALL, J. B., M.B. Lond.—House-Surgeon to the Evelina Hospital for Sick Children, *vice* Michael Harris, resigned.

HARRISON, J. W., M.R.C.S. and L.S.A.—Public Vaccinator for the 1st District of the Eccleshall Bierlow Union, Yorkshire.

HAYNES, STANLEY, M.D., M.R.C.S.—Surgeon-Accoucher to the Malvern Lying-in and Samaritan Charity.

TAYLOR, ALGERNON, M.R.C.S., L.S.A., A.K.C.—Medical Officer for District No. 2 of the Eccleshall Bierlow Union, Yorkshire.

WILLIS, JULIAN, M.R.C.S.E., L.M., L.R.C.P. Edin., L.M. Edin.—Medical Officer for the Mitcheldever District of the New Winchester Union.

WOOD, WILLIAM, M.R.C.S.E., L.S.A.—Medical Officer and Public Vaccinator of the Middleton District of the Driffield Union, Yorkshire.

NAVAL APPOINTMENTS.

The undermentioned Assistant-Surgeons have this day been promoted to the rank of Surgeon in Her Majesty's Fleet :—Henry A. Close, Joshua P. Courtenay, George A. Campbell, and Daniel R. Alcock.

BIRTHS.

COOKE.—On January 18, at 30, Gower-street, Bedford-square, the wife of Thomas Cooke, F.R.C.S., M.D. (Paris), of a son.

FEGAN.—On January 20, at 1, Charlton-park-terrace, Old Charlton, S.E., the wife of Richard Fegan, M.D., L.R.C.P., etc., of a son.

FENNINGS.—On January 13, at 26, Clarendon-road, the wife of Dr. Fennings, of a son.

HARVEY.—On January 18, at 26, Rue Wissocq, Boulogne-sur-Mer, the wife of Dr. J. T. S. Harvey, prematurely. of a son.

RADCLIFFE.—On January 22, at Sandfield-park, West Derby, the wife of Dr. Radcliffe, of Ballarat, Australia, of a son.

TONGE.—On January 20, at The Cottage, Harrow-on-the-Hill, the wife of Morris Tonge, M.D., of a daughter.

MARRIAGES.

DANBY—SMITH.—On January 20, at St. George's, Hanover-square, Thomas William Danby, M.A., F.G.S., Fellow of Downing College, Cambridge, and one of her Majesty's Inspectors of Schools, to Gertrude, only daughter of William Tyler Smith, M.D., of 21, Upper Grosvenor-street.

DENNISS—GORDON.—On January 16, at St. Peter's, Dublin, Alfred Digby Denniss, Captain Royal (Bengal) Artillery, son of the late Colonel G. G. Denniss, C.B., Bengal Artillery, to Edith (E. S.), eldest daughter of Samuel Gordon, M.B., Dublin.

HULL—OGLE.—On December 4, 1871, at St. George's Cathedral, Cape Town, by the Very Rev. the Dean T. F. Lightfoot, George Askew Hull, House-Surgeon, Provincial Hospital, Port Elizabeth, eldest son of Dr. George Hull, of Kensington, to Isabel Henriette, fourth daughter of J. Connell Ogle, Esq., of Kensington.

NIVEN—HALSON.—On January 17, at All Saints' Church, Upper Norwood, William Niven, M.D., H.M. Indian Army, to Margaret Minnie, daughter of the late John Halson, and niece of Alex. Croll, Esq., of Mavis Bank, Grange-road, Upper Norwood, Surrey.

WEBB—WATERS.—On the 23rd inst., at St. Paul's, Newton Abbot, G. Fortescue Webb, F.R.C.S.E., of Exeter, to Georgina Marion, daughter of George Waters, F.R.A.S., late of the Madras Civil Service.

WOOLLEY—ELLIS.—On January 16, at Willingham, Cambridgeshire, J. Woolley, Esq., son of the late Dr. J. Woolley, of the Bengal Army, to Sarah Maria, second daughter of R. S. Ellis, Surgeon, Willingham, Cambridgeshire.

DEATHS.

CLAYTON, M. H., Surgeon, eldest son of the late Rev. John Clayton, vicar of Stratford-on-Avon, at Calthorpe-road, Edgbaston, after a short illness, on January 23, aged 46.

GOOCH, MARTHA, the beloved wife of William Henry Gooch, M.D., M.R.C.P. Lond., at Ventnor, Isle of Wight, on January 16.

HILL, JOHN, M.R.C.S., at his residence, Wentcliffe House, Ferrybridge, on January 17, aged 56.

HOLT, CATHERINE, the wife of J. R. Holt, M.D., at Uckington, Gloucestershire, on January 22, in her 76th year.

MOORE, J. H., M.R.C.S., Sherburn, East Riding, York, on January 15, aged 31.

WELCH, JOHN GOODWIN, M.D., late of Maidstone, Kent, and of Uplands, near Bridgwater, on January 17, aged 70.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

CALNE UNION.—Medical Officer for the entire Union. Candidates must possess the qualifications prescribed by the General Orders of the Poor-law Board. Applications and testimonials to Mr. H. S. Heath, Clerk, on or before January 30.

CHARING-CROSS HOSPITAL, WEST STRAND, W.C.—Assistant-Physician and Physician for the Treatment of Diseases of the Skin. Candidates must possess degrees from one of the Universities recognised by the General Medical Council, and be F. or M.R.C.P.L. Applications to the Secretary, on or before January 30.

DORSET COUNTY HOSPITAL, DORCHESTER.—Honorary Physician. Candidates must be Graduates of some University of the United Kingdom, or be Fellows or Licentiates of the College of Physicians. Applications and testimonials to the Chairman of the Committee, on or before February 7. Election on the 22nd.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. A recognised Medical or Surgical qualification required. Applications to the Medical Committee on or before February 3. Further particulars of the Secretary.

KING'S COLLEGE, LONDON.—Chair of Forensic Medicine. Applications to Mr. J. W. Cunningham, on or before January 27.

MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Surgeon. Candidates for this appointment are required to be M.R.C.S.E., not engaged in the practice of Midwifery or Pharmacy. Applications and testimonials to the Secretary, on or before February 7.

MIDDLESEX HOSPITAL.—Resident Obstetric Assistant. Must possess one legal qualification. Applications and testimonials to the Secretary, at the Hospital, on or before January 30.

MIDDLESEX HOSPITAL, W.—Physician. Full particulars may be obtained upon application to Mr. H. M. Evans, Secretary-Superintendent, on or before February 20.

NOTTINGHAM DISPENSARY.—Resident Surgeon and Assistant Resident Surgeon. Double qualifications necessary. Applications to the Secretary, on or before February 12. Election on the 26th.

POCKLINGTON UNION.—Medical Officer for the Second District of this Union. Gentlemen seeking this appointment are required to have the qualifications to practise prescribed by the General Orders of the Local Government Board. Applications and testimonials to Mr. W. Silburn, Clerk to the Guardians, on or before January 27.

ST. GEORGE, HANOVER-SQUARE, DISPENSARY, 59, MOUNT-STREET, GROSVENOR-SQUARE. — Physician-Accoucheur. Must be M.R.C.P.L. Applications and testimonials to the Honorary Secretary, on or before January 30.

SHEFFIELD GENERAL DISPENSARY.—Assistant House-Surgeon. Medical and Surgical qualifications must be possessed by candidates for this appointment. Applications to the Medical Staff, care of the Secretary, on or before February 2.

TUNBRIDGE WELLS DISPENSARY AND INFIRMARY.—Resident House-Surgeon. Double qualifications required. Applications to the Secretary, on or before January 31. Election on February 5.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Calne Union.—Mr. Campbell has resigned the Union and the Workhouse; area 27,689; population 8879; salary £200 per annum.

Chelsea Parish.—The North-West District is vacant; salary £80 per annum.

East Stonehouse Parish.—Mr. H. Perry has resigned the Parish and the Workhouse; population 14,292; salary £55 per annum.

Eccleshall Bierlow Union.—Dr. J. W. Beaumont has resigned the Second District; area 545; population 16,193; salary £55 10s. per annum.

Scarborough Union.—The Sherburn District is vacant; area 10,606; population 1564; salary £30 per annum.

APPOINTMENTS.

Cardigan Union.—David Havard, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., to the Newport District.

Hailsham Union.—Henry C. Holman, M.R.C.S. Eng., L.S.A., to the Second District.

Pocklington Union.—Alfred Jackson, L.R.C.P. Edin., L.R.C.S. Edin., to the Second Market Weighton District.

St. Marylebone Parish.—Alfred J. Bell, M.R.C.S.E., L.S.A., to the St. John's District. Richard L. Shone, M.R.C.S.E., L.S.A., to the St. Mary's District.

Sudbury Union.—William E. S. Stanley, L.R.C.S. and L.R.C.P. Edin., to the First District.

Whitechapel Union.—Hardwick H. Brayc, M.R.C.S.E., L.S.A., to the Fourth District.

Dr. Purcell has been appointed District Medical Officer for No. 7 District, St. Pancras, in the place of Mr. Wickham Barnes, resigned.

The Bradford Fever Hospital was opened last week.

It is proposed to present a testimonial to Dr. Pierce, ex-Mayor of Denbigh.

The University of Bonn.—The matriculated students this year include 175 in the Faculty of Medicine, 10 being foreigners; 201 in that of Philosophy, 46 being foreigners.

We learn by the Cape mail that sickness prevailed to a large extent at the South African diamond-fields, and the deaths were numerous.

Dr. Butter, who (now blind himself) has for forty-five years rendered valuable and gratuitous services to the Plymouth Eye Infirmary, has resigned.

Cholera is reported to be at Konfudah, on the eastern shore of the Red Sea below Jiddah, where, by the same accounts, the deaths were twenty a day.

Dr. Falck has been appointed Minister of Ecclesiastical Instruction and of Medical Officers at Berlin.

The College Lectures.—Professor Erasmus Wilson, F.R.S., will commence his course of six lectures on "Dermatology" in the theatre of the Royal College of Surgeons on February 2, and will be succeeded by Professor Flower, F.R.S., who will deliver eighteen lectures on "The Comparative Anatomy of the Organs of Digestion in the Vertebrata." Professor Holmes and Dr. Humphry will complete the course for the present year, the former by a course of six lectures on "The Surgical Treatment of Aneurism in its various forms," and the latter by three lectures on "Human Myology."

At the Clerkenwell Vestry, last week, Mr. Brooke called attention to Dr. Lankester's recent observations on the neglected and unwholesome condition of the houses in several of the courts and alleys of Clerkenwell, and proposed that a report upon the subject from the Medical Officer of Health should be laid before them. Vestries and Local Boards have power to remedy this crying evil under the provisions of the Artizans' and Labourers' Dwellings Act, and by neglect of the duties imposed upon them are incurring a very heavy responsibility.

Dr. Corfield's Report on the Sanitary Condition of St. Mary, Islington, for December, 1871, states that for the five weeks ending December 30, 1871, a number of deaths occurred (690) far exceeding the largest ever recorded during the corresponding five weeks, which was 460 in December, 1867. Diseases of the respiratory organs were remarkably inactive in October, causing only 33 deaths in the four weeks, but attained their usual severity in November, when they caused 81 deaths in the four weeks, and during the five weeks under review were fatal to the amazing number of 236 persons, while in December, 1867, there were only 167 deaths from these diseases. Of these fatal cases 132 were children under 4 years old, and 84 of persons between the ages of 40 and 80. As usual, it is bronchitis that is pre-eminent among these diseases, 157 (or about two-thirds) of the deaths being due to it; except in December, 1867 half this number has never been recorded in any December. Pneumonia of course, with 64 deaths, comes next to bronchitis. The causes which influence these diseases are chiefly meteorological, and prevail all over London, as the Registrar-General's returns show; it is worthy of note that the mean temperature of the week ending December 9, was no less than 12° Fahr. lower than the average temperature of the same week during fifty years. Measles caused 98 deaths in five weeks, as against 22 in four weeks last month, and hooping-cough 42 as against 15. Dr. Corfield, in conclusion points out that the death-rate, during the past five weeks, of nearly 33⅓ per 1000 per annum, on the population calculated to the middle of 1871, although very high for healthy Islington, is not such as need alarm us, "especially when we know that it is chiefly brought about by causes over which we have but little control"! The last clause bears marks of haste.

Society for Relief of Widows and Orphans of Medical Men.—The Directors of the above Society held their usual quarterly Court on January 10, the President, Dr. Burrows, being in the Chair. Fresh applications for grants were made by three widows and four children. The case of one widow was postponed for further information respecting her income. The sum of £1249 was distributed amongst the fifty-five widows and forty-three children now recipients of assistance from the funds of the Society. The death of one widow was announced, and the grant to another was no longer required. Several children had become ineligible for grants during the last half year, two having been elected scholars at the Medical Benevolent College, Epsom, and the grants to others ceasing on account of age. Six candidates for membership were proposed to be elected at the next Court.

Composition and Quality of the Metropolitan Waters in the Year 1871.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	19·56	0·102	0·128	0·003	14·8	3·8
West Middlesex .	18·71	0·040	0·124	0·001	14·4	3·3
Southwark & Vauxhall . . .	19·44	0·089	0·125	0·003	14·8	3·8
Chelsea . . .	19·48	0·093	0·136	0·003	14·9	3·8
Lambeth . . .	19·79	0·082	0·123	0·003	15·0	3·8
Other Companies.						
Kent . . .	27·60	0·010	0·215	0·000	20·7	5·7
New River . .	19·19	0·032	0·132	0·001	14·8	3·5
East London . .	20·39	0·060	0·143	0·001	15·0	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

It appears, therefore, that the average amount of saline matter dissolved in the water supplied to London during the year has ranged, in the case of the Thames supply, from 18·71 grains per gallon (West Middlesex Company) to 19·79 grains (Lambeth Company); in the New River water it has averaged 19·19 grains; in the River Lea water (East London Company) 20·39 grains; and in the water from the deep chalk wells of the Kent Company it has amounted to 27·6 grains per gallon. The fluctuations of these proportions have not been considerable during the year, although in all cases the water has contained more saline matter in winter, during wet weather, than in summer—the maximum being in January and February, and the minimum in September. The hardness of the general supply has been from 14·8 to 15 degrees of Clark's scale, and this has been reduced by boiling for a quarter of an hour to about 4 degrees. In the case of the chalk well water it has been 20·7 degrees, and the permanent hardness 5·7 degrees. As to the proportion of organic matter in the water, it has been very small, for the quantity of oxygen required to act in every description of oxidisable matter has ranged from only 0·010 of a grain per gallon in the chalk water of the Kent Company to 0·102 of a grain in the Thames water of the Grand Junction Company; and the proportions of ammonia and of organic nitrogen have not exceeded the one-hundredth part of a grain per gallon of water. As regards turbidity, the water of the Chelsea and of the Grand Junction Companies has, in each case, been more or less turbid on eight occasions, while that of the Lambeth Company has been turbid on five occasions, and that of the Southwark and Vauxhall Company on one occasion. The quantity of water supplied to the metropolis has averaged 106,929,244 gallons daily, and of this 55,695,796 gallons have been derived from the Thames, 44,161,791 from the New River and the River Lea, and 7,071,657 from the chalk wells of the Kent Company. The maximum daily

supply (116,799,067 gallons) was in August, and the minimum 100,782,216 gallons) in February. These quantities were supplied to 487,230 houses, and it therefore amounts to an average daily supply of 32·7 gallons per head of the population, or nearly 220 gallons per house. It is very probable that from 80 to 82 per cent. of this supply was used for domestic purposes; and, considering that in many well-regulated towns, where the supply is constant, it does not exceed twenty gallons per head of the population, it is manifest that at present there is a considerable waste of water in London, from the neglect of domestic fittings. This will no doubt be remedied when the Metropolis Water Act, 1871, comes into operation (as it will do on February 21 next), and a constant service is supplied; for it will then be the duty of the water companies to see to the proper condition of the fittings of every house, and to enforce the provisions which will be sanctioned by the Secretary of State. How far the public, who have clamoured for such a supply, will like the interference and expense which it necessarily entails is very doubtful; for the fittings in use in this metropolis are generally so imperfect, and are situated in such out-of-the-way and inconvenient places that, for the purposes of preventing waste and misuse of water (as the Act of Parliament directs), they must be, to a large extent, repaired and renovated. The penalties for defective fittings are sharp and decisive; for not only is the defaulter liable to a fine of £5, but the companies have power to cut off the supply of water, and to report him to the nuisance authorities. In the 32nd section of the Act it is declared that, if the provisions of the Act are not complied with, as regards fittings, misuse of water, and undue consumption of it, the company supplying the water may, without prejudice to any remedy against the defaulter, cut off the service, and cease to supply the water so long as the injury remains or is not remedied; and in every case of so cutting off or ceasing to supply, the company shall, within twenty-four hours thereafter, give to the nuisance authority, as defined by the Sanitary Act (1866), notice thereof; and if the fittings are not repaired within the prescribed time, the house shall be a nuisance within Section 11, and Sections 12 to 19 inclusive, of the Nuisances Removal Act (1855), and shall be considered as unfit for human habitation. These summary powers are absolutely necessary, not only for the prevention of such waste as might occasion public calamity, but also to guard against destruction of property by overflowing cisterns and the giving way of defective pipes. When, however, all this is brought into proper and harmonious working, as no doubt it will be by due caution and forbearance, the results will be most advantageous, especially to the poorer classes of the community.—Hy. Letheby, M.B., etc.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

"The Sketches of Success and Failure in Medicine," by Dr. C. J. B. Williams, will be continued next week, and in alternate numbers of this journal.

A Student.—The lectures in question have not been published.

R. E., Parkstone, Poole.—A well-made water-bed should not leak. Use a waterproof sheet under the blankets.

Scarborough.—We are glad to perceive that Dr. Rooke continues the publication of his able letters on the "Health of Scarborough" in the *Express*.

Lithotomy Knives.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In your publication of to-day I am surprised to see the letter from your correspondent J. F., in which he attempts to disprove a claim which Sir William Fergusson, I am sure, never made. What authority he has for such information I am at a loss to know, as, in common with you, I am quite unable to find any publication in which a knife used in lithotomy is claimed by Sir William as his invention, or, indeed, where any of the authors who so justly quote his practice with regard to this operation attach his name to such an instrument as originated by him.

The injustice of the observations, as well as their inaccuracy, will be the more apparent if in connexion with the following facts it be borne in mind that Mr. Smith, of Leeds, in performing the operation used two knives; one for the primary incision, and another having a beak-point for carrying the incision upon the groove of the staff into the bladder. Sir William Fergusson, in his description of the operation as performed by himself, uses the same knife throughout, and that a sharp-pointed one. Having been present on a considerable number of occasions when he has cut for stone, I have observed that the sharp-pointed knife used in the first part of the incision has never been laid aside for a probe-pointed one. The same knife was invariably used in carrying the incision into the bladder.

It is evident, therefore, from the facts of the case, that the probe- or beak-pointed knife, as regards Sir William Fergusson's practice, remains not only unclaimed but unused. I am, &c., E. B. Roche.

King's College Hospital, January 20.

Warrington.—We have this week to record the case of a board of guardians energetically defending one of its Medical officers. The facts briefly are, that the Local Government Board having seen reason to find fault with Mr. Spinks, of Warrington, for the manner in which he has performed his duties as Public Vaccinator, has called on him to resign his post as Vaccinator, and also as Medical Officer to the workhouse. The Guardians, in discussing this summary dismissal, defend their officer, and think they might have been asked if they were satisfied, and this all the more because they are satisfied that they possess, and have long possessed, in Mr. Spinks, a zealous and faithful public servant. We may add, on our knowledge, that having once visited the workhouse at Warrington since it has been under Mr. Spinks's Medical superintendence, we were struck with the singularly able and excellent management of the Medical department, as well as with the devoted interest and the practical skill shown by Mr. Spinks in his work. Experienced in observing the arrangements of sick wards, we were struck by one or two improvements suggested by Mr. Spinks, which to us were new in workhouse infirmaries, and which indicated how truly he had the interests of his patients at heart. We shall hope the Local Board will reconsider the decison it has taken.

Proxy-Voting Again.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Recent vacancies in the Medical staff of one of our local Medical charities—the Brighton Dispensary—afford another example of the unfairness of proxy-voting. Several weeks ago—I believe prior to these vacancies being advertised, certainly before they were generally known, and before I myself knew a word about them—one of the candidates called on me to solicit my vote, when he informed me there was also another similar vacancy, which some gentleman (a total stranger to me) had already secured for himself, or it had been secured for him, by means of the proxies (ladies' votes) then in hand—obtained from these ladies, be it remembered, actually before the vacancies were made known to the general body of governors.

Although I believe that both of the gentlemen elected are exceedingly well qualified for the duties they have undertaken, yet, to my mind, the system by which one, at least, of the appointments was obtained is so derogatory and altogether objectionable, that the sooner another mode of filling vacancies, in our Medical charities be everywhere introduced, the better for the public and for the Medical Profession.

Brighton, January 24. I am, &c., A Governor.

Sanitary State of Londesborough Lodge and Scarborough.—Mr. George P. Dale, F.R.C.S., writes to the *Lancet* as follows, in reply to the Editor's remarks on his letter to him of the 15th inst.:—

"In the summary of your 'Report' on the sanitary state of Londesborough Lodge, you base your condemnation upon the following facts(?):—The dead rat—the head of the sewer—the absence of sewer ventilation—the defective water-closet—the suction-action of the rarefied air of the house upon the traps—and lastly, the 'damning fact' of the late Earl of Chesterfield having occupied the same bedroom as the Prince of Wales in the succeeding week.

"As the apocryphal rat has been dropped like a hot coal, there we will leave it. The real facts then show that the 'Lodge' is *not* placed upon the end of the main sewer, but upon a branch of a branch; that it possesses ventilating shafts amply sufficient to relieve any pressure to which the drain-sewer might be subjected, and to supply an abundance of fresh air to establish inside currents; that the defective water-closet was found, for all practical purposes, as safe as if no hole existed in the pipe of the D trap; that the rarefied air of the house did not, and could not, exert any influence upon the traps; and lastly, that the late Earl of Chesterfield did *not* occupy the same bedroom as the Prince of Wales. I am prepared to substantiate these facts, either by unimpeachable testimony or by experimental proof. . . . . .

"I did not there affirm that I had attended *nine hundred* cases of diarrhœa among *visitors*, during the past ten years; nor did I lead you to suppose the diarrhœa cases were caused by local conditions, in any other sense than *might* happen in any house filled with guests and servants. In reality they had no significance, and no further bearing upon the question at issue, than had the two cases of diarrhœa which followed the dinner at the London Club.

"You remind me that I had forgotten to mention the two cases of typhoid fever which happened a *few years* ago at Grove Villa. It was only from fear of trespassing upon your valuable space that I refrained from alluding to them. Your own commissioner is indebted to me for his knowledge of them; and, moreover, they are '*typical illustrations*' for establishing my conclusions. This outbreak of enteric fever took place some seventeen years ago. Search was made to discover its local origin, as the disease was unknown in the neighbourhood. On raising the hearth-stone, the crescent main sewer was found underneath, and the surrounding earth soddened with sewage filth. There, in that blackened, festering mass, was the veritable '*plague-spot*'—the birthplace of typhoid fever—the signs, *real, tangible, and conclusive*. The sewer was diverted, and no case has occurred since. In similar *isolated* outbreaks, we have traced the disease as unerringly to its source. Here let me correct some other mis-statements. 'The pure and rapid sewer of Londesborough Lodge' (as you are pleased euphoniously to call it) does *not* pass under Grove Villa; nor is this house included in the twenty-four villas and houses to which I called attention, for the obvious reason that it is quite apart and distinct from them. It is situated at the bottom of the hill, whilst the others are at the top, and stand together."

Insanity.—The Watson and Edmunds Cases.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the Watson case your review evidently does not agree with the letter of an intelligent correspondent in the same number; but although not practically acquainted, like him, with the treatment of insanity, I can fully endorse your observations as agreeing with the legal decisions in these cases.

I do not myself see that our learned Physicians at the head of asylums, and who claim on that account an amount of psychological analysis above other men, possess often the discernment in detecting moral or legal

responsibility more than non-Professional men of good common sense and a knowledge of mankind. The fact of so much division of opinion often amongst those gentlemen, on public trials affecting the question of insanity, substantiates my remark, and hence the public would say, does say, "Defend us in such trials from a jury of Doctors!" If we ask, "What is insanity!" the question comprehends a large sphere of inquiry. We are all insane, inasmuch as our opinions do not bear the test of truth—"Nemo mortalium omnibus horis sapit." But when the law is called in to decide for the advantage of an individual, or against him for punishment, or anght else, the circumstances differ. Society is capable of judging for itself as to the fitness or unfitness of its members to be at large or under restraint or punishment; and this is an opinion of lawyers of eminence and many others, and, I presume, would have been the opinion held by such men as Locke and Shakespeare, who were clearly as capable of drawing the line of demarcation between a sound or unsound mind as Dr. A or Dr. B for delusions. Taints and lucid intervals are open to common observation; and, let me ask, What are our pretensions to an exclusive knowledge of mind from our knowledge of the brain and its functions? Can we explain definitively and progressively the processes and parts concerned in the exhibition of mind? We know mind differs in estimation and value, like clocks or watches; but we understand the mechanism of the one, and what it can do. Are we acquainted so with the other? I am, &c.,

Nailsworth, January 22. THOS. STOKES.

Lincoln.—It would certainly have been more consistent, and in accordance with the usual practice, if the names of Dr. Lowe and his son had not been connected with the inquiry. Though there can be no doubt as to the *bona fides* of the whole proceeding, it is well not to give the semblance of a "family party" in any judicial matter.

Dr. C. J. B. Aldis, in his special report, dated November last, to St. George's Vestry, Hanover-square, makes the following suggestions for preventing the spread of infectious diseases:—

"1. I would suggest that the Medical Department of the Local Government Board be asked to empower the Vestry to refer to a committee, the authority to carry out such sections of the Metropolis Local Management Acts as relate to the abatement and removal of nuisances, in the same way as they are empowered to refer the carrying out of the Nuisances Removal Acts by the 5th Section of the 18th and 19th Vic., cap. 121.

"2. That with a view to steps being taken to prevent the spreading of infectious diseases, every Medical Practitioner should immediately report such cases, occurring in private or public practice, to the Medical Officer of Health of his district.

"3. The 23rd Section of the Sanitary Act stipulates that the nuisance authority in each district may provide a proper place, with means of disinfection. The word 'shall' should be used for 'may' when necessary, adding also a power to destroy infected articles where necessary.

"4. The 25th Section of the same Act provides a penalty on a person suffering from any infectious disorder entering a public conveyance without notifying to the driver that he is so suffering. This clause should be so modified as to impose the duty and penalty on the person in charge of the sick, when the latter is of tender years, or is incapacitated by to lily or mental disease.

"5. That the board of guardians of every parish or union be compelled to provide suitable carriages for the removal of patients suffering from infectious diseases, and to give public notice where such carriages can be obtained.

"6. The 27th and 28th Sections should be made compulsory for the provision of mortuaries and reception-houses.

"7. In the 38th Section the words 'public place' should receive some addition, so as to prevent persons who have just recovered from infectious diseases from selling goods in their shops before they have been certified to be free from the risk of infection.

"8. Persons should incur a penalty who wilfully conceal the existence of scarlet fever or small-pox."

"AFTER MESS."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Wishing "Medicus," "An Old Subscriber," "Chirurgus," "Anti-Humbug," "A Hater of Injustice," and "Studens"—the wily flatterer, who, alluding to the "world-wide circulation, encroaches on your valuable space"—in short, the communicative correspondents, as well as the brilliant staff of the *Medical Times and Gazette*, a happy new year, I venture to commence a series of letters strictly Professional. After the fashion of the Greek chorus, a little preliminary explanation appears necessary. Well, sir, middle-aged bachelors find that mesa life, however nutritious, luxurious, and independent, after a few years becomes terribly tedious; it is only human nature to sigh for an anchor and to long for a home. Whereas Brown, F.R.C.P., angling for F.R.S., is spoken of as "that eminent Physician,"—Jones, J.P., happy in his family and country practice, receives claret-jugs, tea-pots, and silver salvers; and fat Robinson's communications, such as a "Successful Case of Vaccination," "The Temperature in Scabies," etc., etc., are never contemptuously torn and tossed into the waste-paper baskets of cynical editors. Some contemporaries are dead, a few gone wrong, but, on the average, the majority have not done badly. It is too late to enter into competition with these. No; quoting an able writer, "you cannot teach an old dog new tricks." Resembling Mrs. Wilkins Micawber, our motto is never to desert the department. In spite of debts, drawbacks, and disappointment, every man is sorry to leave the army. *J'aime les militaires*, and to-night, when, regardless of gout, the Queen's health was drank in heady port, and the band played "God bless the Prince of Wales," one thought of eventual farewell, when Othello's occupation will be gone; when, according to ancient custom, on half-pay, we shall haunt railway-stations, auction-rooms, and the Medical club; or else, affecting money in the funds, be the oracle amongst tabbies at Continental boarding-houses. In terrible fear of nipping, marrying beneath one, or forming a disreputable connexion (contingencies peculiar to despondency), the *cacoëthes scribendi* suggests a prophylactic. It is significant of age to find at balls young girls, unless very plain, refusing to take the floor, pretending to be engaged. It is a bore to escort fat old ladies down to supper, who, instead of poetry, pictures, and pantomimes, will talk shop, chiefly endeavouring to worm out their neighbours' ailments. Excepting as a choke-off, dinner parties are not so numerous as of yore; entertainers very properly consider inviting stupid ineligible old bachelors as throwing good money after bad. So there are many solitary evenings when bitter thoughts of the insuperable poverty that cruelly cancelled a long engagement will intrude themselves, and in fantastic faces in the fire we are sadly apt to meet those "eyes that shone now dimmed and gone."

Let me apologise for not entering into any cases to-night; the list as to quality has been very fatiguing, including a Medical man and two fidgetty old maids, recalling to the mind Professor Haughton's calculation that the exhaustion of one day's fever corresponded to the exertion of a fifty-mile walk. Occasionally religious people are very trying, and when texts such as "I would rather be a doorkeeper," or "Better is a dinner of herbs than a stall at the opera," are too lavishly scattered about a house, not unfrequently look out for hard suspicious individuals who, instead of assisting diagnosis, delight in setting traps to confuse and confound the puzzled Practitioner.

Many patients are very nice, and, as long as things go straight, most men find their pleasure at the sick bed, especially if the cases are not in miserable, loathsome, horrible habitations. He jests at scars that never felt a wound; but there are Medical men who, after the excitement of the day, do acutely feel the reaction of extreme depression, and in dreary solitude sometimes agree with Artemus Ward that it would have been money in their pockets if they had never been born.

A sledge-hammer knock is heard at the door. "Please, sir, you are wanted in the guard-room—a drunken recruit, a plumber's mate, wishes to see the Doctor." As Charles Lamb would say, I don't know this future Wellington, but heartily and emphatically, at a venture, HANG HIM.

DE MULTIS.

By RICHARD GUMBLETON DAUNT, M.D. Edin., Brazilian Citizen.

THIS sheet of memoranda is a transition. I have just closed two letters, one urging the reasons for the creation of two life baronies, and the other respecting the granting of a bank charter. Previous to entering on the Medical topics I wish to speak on, allow me to refer to the speech of Sir William Stirling Maxwell at the Scott Centenary celebration in Edinburgh, in which he, speaking of the Scott school of novelists in foreign lands, omits all mention of Portugal and the two most distinguished imitators of Walter Scott—Alexander Herculanus and the Viscount Garrett. This ignorance of Portuguese and Brazilian literature in English-speaking lands is prejudicial to the progress of learning, and exercises a bad influence on Medicine—reciprocally—and so may justly be noticed here.

I introduce Medical matters by the offering of the formula employed by a skilful Saxon apothecary of this city for the administration of phosphorus in a pilular form. It is this—R. Phosphorus gr. j., oil of swee, almonds 3ss., Japan wax gr. xij. Place these several ingredients in a phial, and submit them to a gentle heat until the phosphorus is dissolved. Let the mass become cold, and then divide it into fifty pills. Of such pills I give usually two in the *nyctemera* or period of twenty-four hours, and sometimes I give three. I use this medicine not only in the ataxic forms of fever, but principally in conditions of defective nerve nutrition; and I have observed that in obscure chronic diseases, where there is sleeplessness and an internal sensation of cold, it is of great service. The fault of good formulæ for the administration of phosphorus is one of the many *lacunæ* of the British Pharmacopœia. The Japan wax is met with in commerce, and is attributed to the *Ceroxylon anticola*.

What is the therapeutic value of pulsatilla as an emmenagogue? Is the oxide of antimony which the British Pharmacopœia orders to be employed in the formation of the official imitation of James' powder the same oxide as that known and so much employed in European Continental Medicine as *antimonium diaphoreticum*, or white oxide of antimony? If it be so, then James' powder of the Pharmacies is useless in the doses usually given, as this white oxide is administered in doses of from one to two drachms in the twenty-four hours to adults suffering from pneumonia of an inflammatory form, and to young children in doses (in the twenty-four hours) of twenty-four to thirty-six grains, in which latter dose I give it to children of two to three years of age. This preparation of antimony has the great advantage of being tolerated even when there is intestinal irritation and diarrhœa, when I associate it with *oculi cancrorum* and cherry-laurel water. If I am rightly informed, British wisdom excludes both these articles from the Pharmacopœia, in which, I think, it errs—as in many other things. Here we have the true so-called crabs'-eyes imported from Russia, where on the shores of remote seas the crabs agglomerate in incredible quantities. I do not think the prepared chalk and the hydrocyanic acid therapeutic equivalents of the two above-mentioned drugs.

Is there recognised in European pathology a form of paralysis produced by the solar rays, reflected from a mirror, from any shining metallic surface, or from water? That such a form of paralysis exists here is an undoubted fact. The face is the part attacked. The medium must certainly be the optic nerve. I am told on credible authority that if some dishes of water are placed in a room or any enclosed space so that the surface of the water can reflect the rays of the sun, and if partridges are introduced into the same room or enclosure they quickly become paralytic or convulsed. On this account the itinerant Neapolitan vendors of objects made of tin or pewter, who infest this country, are obliged by the laws of many municipalities to cover their wares with an ample blue cover, in order that in going through the streets they may not cause attacks of paralysis, and I have seen them more than once in prison for disobedience to such by-laws or police regulations. This form of paralysis is accompanied by much general suffering and disorder of health.

It is a fact well-known here that persons once struck by lightning, but apparently recovered with more or less local lesion, undergo a modification in their nervous organisation, which causes them to suffer more or less acutely previous to and during thunderstorms, and this in a way not to be explained by apprehension, fear, or any moral cause.

A question to Pharmaceutists. What is the theory of the gelatiniform change presented in saline saccharated liquids after a few hours of preparation, and before ascescent fermentation? This change is very frequent here in hot weather. I saw it the other day in a decoction of althea with syrup and bicarbonate of soda. In a saccharated solution of citrate of magnesia it is quickly formed, also in one of salt of seignette, and of the borated or boracic cream of tartar, an elegant cooling laxative ignored by the English Pharmacopœia. Another article ignored by English pharmacy is the tea of St. Germain, an intelligent scoundrel who was broken on the wheel in the reign of Louis XIV. or XV. The chief ingredient is senna from which the resinous and gripe-producing principle has been extracted by maceration in alcohol. The broth made from the flesh of the cascavel or Brazilian rattlesnake is a popular remedy here for cancerous ulcers, and for syphilitic secondary ulcers in cachectic persons. The snake being killed, is disembowelled, and then about two inches of the head and caudal extremities are cut off and thrown away; the rest of the

animal is *moquéada*—that is, dried in the sun—and is then fit for use. About three inches of the body are boiled in three or four cupfuls of water until a strong broth is obtained, which is taken *duabus vicibus* during the day, the patient eating, or not, *ad libitum*, the flesh. A Physician of good standing affirmed to me that he had personal knowledge of the cure of two cases of epithelioma so obtained.

There lately occurred a case of a small bird like the European sparrow (the tico-tico) killing a cascavel. The cascavel was kept in a cage, and one day the owner, a Doctor in Civil Law, of Selborne-White proclivities, introduced into the cage a tico-tico for the snake's breakfast. It happened, however, that the snake was indolent, and began to protrude its tongue, which the tico-tico mistook for a worm and wounded with its beak. The snake continued (now irritated) to protrude the tongue and the tico-tico to wound it, until after a short space the snake died. Where was the mysterious attraction which, as a rule, the snake exercises on little birds, until, trembling, they walk into the open mouth of the reptile and are swallowed?

Campinas, October 24, 1871.

COMMUNICATIONS have been received from—

Dr. Porter Smith; Mr. Fenneley; Mr. T. Smith; Mr. W. Tallack; Dr. Russell; Mr. E. B. Rocne; J. S. W.; Mr. J. B. Ball; A Student; Dr. Tonge; Dr Young; Dr. B., New York; Dr. Meredith Clymer; Miss Franks; Mr. Stokes; Mr. Faithful; Dr. Phillips; Mr. Orton; Dr. Collyer; Dr. Forbes Winslow; Mr. G. P. Dale; Mr. C. J. Egan; Mr. Bottesill; Mr. W. Miller; Dr. Abrath; Mr. W. G. Nash; Mr. Morris; Dr. Edwards-Crisp; Mr. R. Elgie; Dr. S. Haynes; Dr. Brakenridge; Dr. George Johnson; Mr. J. Chatto; Mr. F. A. Mahomed; Dr. Francis R. Hogg; Dr. Russell Reynolds; Mr. F. Churchill; Dr. J. H. Scrivener; Dr. B. W. Richardson; A Governor; Mr. J. B. Blackett.

BOOKS RECEIVED—

Morgan on Contagious Diseases—Niemeyer on the Symptomatic Treatment of Cholera—Deakin on the Contagious Diseases Acts—Aitken's Science and Practice of Medicine, 6th Edition—Dalton's Treatise on Human Physiology—Wickham Legge's Treatise on Hæmophilia—Sir J. Y. Simpson on the Diseases of Women, edited by Dr. Alex. R. Simpson—Dr. Hayes' Case of Ovarian Tumour—Jacobi's Inaugural Address, including a Paper on Infant Asylums—Grimshaw's Remarks on the Prevalence and Distribution of Fever in Dublin.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Scarborough Express—The Salopian—O Correio Medico—Lincoln Gazette—Camden and Kentish Towns Gazette—Bath Express—Dublin Journal of Medical Science, January—Michigan University Medical Journal.

APPOINTMENTS FOR THE WEEK.

January 27. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakespeare's Time."

29. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. Henry Lee, "On some Cautions necessary to be Observed in the Use of Calomel-vapour Baths." Dr. Richardson, "On the Science and Art of Healing Wounds."

30. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

31. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Arts, 8 p.m. Meeting.

February 1. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

2. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 9 p.m. Prof. Tyndall, LL.D., F.R.S., M.R.I., "Remarks on the Identity of Light and Radiant Heat."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 20, 1872.

BIRTHS.

Births of Boys, 1309; Girls, 1156; Total, 2465.
Average of 10 corresponding weeks, 1862-71, 2163·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	779	849	1628
Average of the ten years 1862-71	816·4	842·4	1658·8
Average corrected to increased population	...	...	1825
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	8	2	2	16	2	6	1	1
North ...	751668	38	20	9	1	27	2	11	2	2
Central ...	333887	2	7	...	...	12	...	3	...	1
East	638928	17	16	6	...	31	1	5	...	3
South	966132	32	9	17	3	29	2	10	3	3
Total	3251804	93	60	34	6	115	7	35	6	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer . . . . . 29·473 in.
Mean temperature . . . . . 39·1°
Highest point of thermometer . . . . . 48·1°
Lowest point of thermometer . . . . . 28·3°
Mean dew-point temperature . . . . . 36·1°
General direction of wind . . . . . W.S.W. & S.S.W.
Whole amount of rain in the week . . . . . 0·54 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 20, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Jan. 20.	Deaths Registered during the week ending Jan. 20.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2465	1628	48·1	28·3	39·1	3·95	0·54	1·37
Portsmouth ...	115455	12·1	75	45	49·8	27·4	40·2	4·55	1·08	2·74
Norwich	81105	10·9	52	57	47·0	28·0	38·1	3·39	0·83	2·11
Bristol	186428	39·8	141	95	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	53	62	50·3	30·6	39·1	3·95	0·41	1·04
Birmingham ...	350164	44·7	280	133	52·2	30·6	39·9	4·39	0·75	1·90
Leicester	99143	31·0	83	48	49·5	26·7	37·6	3·11	0·43	1·09
Nottingham ...	88225	44·2	67	72	52·1	26·6	39·1	3·95	0·55	1·40
Liverpool	499897	97·9	406	236	52·5	28·9	39·8	4·33	0·55	1·40
Manchester ...	†352759	78·6	272	214	51·0	24·0	37·5	3·06	0·79	2·01
Salford	127923	24·7	104	65	51·7	28·9	39·0	3·89	0·71	1·80
Oldham	84004	20·2	69	45	...	...	...	...	...	...
Bradford	151720	23·0	93	81	54·2	33·0	42·0	5·56	0·49	1·24
Leeds	266564	12·4	153	145	55·0	31·0	41·7	5·39	0·38	0·97
Sheffield	247847	10·9	167	163	52·0	28·7	40·2	4·55	0·60	1·52
Hull	124976	35·1	89	70	46·0	28·0	37·7	3·17	0·62	1·57
Sunderland ...	100665	30·4	85	66	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	112	68	53·0	32·0	40·2	4·55	0·02	0·05
Edinburgh	205146	46·3	170	136	50·0	32·0	41·0	5·00	0·50	1·27
Glasgow	489136	94·8	358	277	52·0	32·2	41·4	5·22	1·42	3·61
Dublin	310565	31·9	149	187	54·0	26·0	39·7	4·28	0·24	0·61
Total of 21 Towns in United Kingd'm	7394345	34·0	5443	3893	55·0	24·0	39·6	4·22	0·62	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·47 in. The highest was 29·90 in. on Sunday evening, and the lowest 28·80 in. on Thursday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,099, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the corrected number for 1871.

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 62.)

PART III.

Minor Successes. Examples of Success and Failure in Practice. Pneumonia—Essential Seat and Relation to the Blood—Not a mere Local Inflammation—Pathology and Varieties.

If, from these great successes in Medicine—great in the completeness of the cures by remedial means, or great in the number of lives saved by preventive measures (the successes marked A in our table)(a)—we turn to the minor successes (marked B), we find them specified under the heads, Mitigation and Retardation of Disease, Prolongation and Utilisation of Life, and Alleviation of Suffering. These smaller successes may seem very subordinate to the first in their value and importance, yet, in actual experience, we often do not find them to be so lightly esteemed by the patients themselves. I think that we meet with more gratitude for these minor successes than we do for the most perfect cures. Life is more precious when there is a near prospect of losing it, and relief from pain is more prized than constant ease. No doubt patients often flatter themselves as well as their Doctors, and sometimes give us more credit than we can honestly appropriate. They call themselves cured when we consider them only relieved. They desire to be delivered from present pain, weakness, and danger. If we can effect this, prospective evils trouble them little; and it becomes no easy matter to convince them of their reality. This great preponderance of the present over the future is a remarkable trait in human character, which Practitioners have to bear in mind in the disclosure of their opinions to their patients. Present and imminent dangers are exaggerated and become objects of overwhelming terror, while far-distant prospective evils are hardly realised.

A patient is incautiously told by one Doctor that he has organic disease of the heart, which can never be cured, and that some day he may drop down and die suddenly! The terrified patient consults another Practitioner, who, although he admits the presence of organic malady, holds out a more hopeful prospect, and assures him that such terrible events are extremely rare in comparison with the number of cases of structural disease that occur. He can therefore honestly encourage the affrighted mortal in the belief that there is no present danger to life, and that with care and proper management he may live for years in safety and comfort. This last adviser seems like a saviour to the patient; and, if his predictions are fulfilled, his minor success will be valued as much as if he had made a perfect cure.

Another common case, in which both patients and Practitioners are apt to take an exaggerated view of present danger, is that of hæmoptysis. When a person sees for the first time that he is spitting blood, he commonly thinks that his fate is sealed, and that he is going to die. Examples of sudden fatal hæmoptysis certainly do sometimes occur, but they are comparatively very rare. In looking back in a cursory manner on my own experience on this point, I think that, on an average, I meet with an instance of fatal hæmoptysis once in six months, yet hardly a day passes in which I do not see several cases of hæmoptysis; and I know of many instances of persons who, after bringing up appalling quantities of blood, have yet regained health and strength, and have lived in safety and comfort for many years.

Another circumstance, tending to multiply the number and enhance the value of minor successes, is the fact that the subjects of them are much more amenable to the Physician's influence than those who are habitually healthy, and who are prone to carelessness and delay; and it may fairly be said that a person with a small amount of organic disease, who, being aware of his state, lives by rule and within prudent limits, has a good chance of surviving his healthy contemporary, who continually trangresses the bounds of moderation, and sets all sanitary rules at defiance.

After these preliminary expositions and examples of Success and Failure in Medicine in general, I proceed to illustrate our subject by sketches derived from my own experience; and in order to render my illustrations representative, as well as moderate in numbers, I propose to select samples of cases which have occurred within a limited period. My notes of cases extend over upwards of a quarter of a century, and considerably exceed twenty thousand in number, which are more than I can at present profitably deal with; but taking those of seven years as a sample—from 1849 to 1855 inclusive—I find 7840 cases noted, and out of these I have selected about 300, the histories of which are sufficiently complete to serve for illustration of our subject.

As a large proportion of the patients who seek my advice are suffering from diseases of the chest, I therefore take my clinical illustrations from them; but I wish, on this and all occasions, to repudiate the imputation of being a *specialist*. People often come to me, saying—"I understand you devote your attention exclusively to diseases of the chest." I always reply—"You are quite mistaken; I should be very unsuccessful in treating diseases of the chest if I did not attend to other diseases as well." In fact, I believe that the best security that a Physician's views are comprehensive and not one-sided would be, that he should, for a number of years, as in my case, have had charge of patients in a general Hospital, and have given several courses of lectures on general pathology and the practice of Medicine.

In pursuance, then, of our subject of Successes and Failures in Medicine, I propose to draw from my own experience examples of certain diseases, with brief pathological considerations on their essential nature as well as on their successful treatment.

PNEUMONIA.

This disease is to be regarded, not simply as a local inflammation, but as one involving more or less of the great vascular plexus of the lesser circulation, conveying the whole blood of the body in the process of aëration. It stands, therefore, among inflammations pre-eminent, in the character of a blood disease, mutually affecting the composition of that fluid, and being induced by agencies operating on it. Thus, persons dying from the bite of the rattlesnake and other venomous serpents are found to have inflammation of the lungs. The same thing occurs in those poisoned by arsenic, even when the poison is applied to a wound; and also in animals in which phosphorus dissolved in oil has been injected into the veins. In certain epidemics, pneumonia is a common result of the operation of the blood poison of fevers. Various asphyxiating influences, if long in operation, tend likewise to produce pneumonia. And of more common causes, those which simultaneously affect to a great degree both respiration and circulation—such as prolonged violent exertion or over-fatigue, either alone or combined with cold—are among the most usual antecedents of inflammation of the lungs. With regard to cold, it is not the transient application of cold, however intense, that commonly excites this inflammation; it is rather prolonged and deep-reaching cold that has this effect. Thus, if a person gets thoroughly wet, and remains long in wet clothes, or lies out on damp ground; or a sentinel standing, or only slowly pacing, for hours in a cold wind; in such cases, the chill goes to the heart, as it were, and paralyses the deep circulation, and pneumonia is likely to be the result. Observe, further, in reference to the nature of pneumonia as a blood disease, how much more than other inflammations it affects the depurative secretions, especially the urine, which is not only scanty and high-coloured, and sometimes albuminous, but is wanting in its ordinary saline matter. The chlorides are no longer thrown off in it, but are actually retained in the inflamed lung,(b) and, so soon as this is resolved, they reappear in the urine. If time permitted, I could give you many other proofs, in the history and varieties of pneumonia, of its title to be ranked as a blood disease as well as a local inflammation; and we shall find this view aid us in considering the treatment.

Note added in 1872.—This view of the systemic nature of pneumonia (sketched in the "Cyclopædia of Practical Medicine" in 1833) has been generally overlooked, even by the most recent authors. Thus, Dr. Wilson Fox, in his elaborate article in "Reynolds's System of Medicine," whilst largely diverging into multifarious distinctions and divisions, which involve much reiteration, in great measure misses the fundamental question as to the true seat and essential nature of

(a) See second table, page 1 of *Medical Times and Gazette*, January 6.

(b) Dr. Lionel Beale.

pneumonia, the answer to which supplies the best clue to its pathology and varieties.

Being distinctively the inflammation of the great capillary plexus conveying the systemic mass of blood from the pulmonary arteries to the pulmonary veins, its process and products are more substantially sanguineous than those of inflamed mucous membranes or other less vascular textures. Therefore, the lung is deep red and blood-filled in the first stage, and consolidating with abundant fibrinous and other blood-products in the stage of hepatisation. Its inflammatory exudation-matter is rich in corpuscles and fibrils fresh from the blood; to which may be added, incidentally but not necessarily, epithelium and connective-tissue cells, if the inflammation extend to the mucous membranes and connective tissues adjoining the great vascular plexus. And herein we have a clue to those varieties in the necroscopic appearances of pneumonia which have caused so much confusion and discussion. In the simplest forms of pneumonia the inflammation is limited to the pulmonary plexus, and the resulting hepatisation is uniformly red, and not granular, as in the pneumonia of the aged (Hourmann and Dechambre) and in the carnefied lung of pleuro-pneumonia. But in ordinary acute pneumonia the inflammation extends to the alveoli and interstitial connective tissue, and the hepatisation is granular, from the alveoli being filled by multiplication of cells or corpuscles of these parts. A further participation of the bronchial membranes in the inflammation, as in broncho-pneumonia, adds their products in the form of viscid mucus, pus, or croupous exudation, according to the stage, in the air-tubes; a section of which presents rounded spots in the hepatised lung, which a hasty inspection might mistake for tubercles.

Further varieties in pathological tendencies and necroscopic appearances arise from differences in the nature and aptitudes of the exudation-matter, whether more *corpuscular*, and tending to softening, suppuration, or caseation; or more *fibrous*, and tending to indurate and contract; or of a mixed *fibro-corpuscular* nature, tending variously in either way. In these varieties may be traced the origin and history, not only of the results of inflammation, but also of contractile and consumptive lesions of the lung, which, under the term *phthinoplasms*, I have considered in another work.(c) I would refer especially to the fourth, seventh, and eighth chapters, where the pathology of pneumonia is brought under discussion.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

ON THE

MODE OF PROGRESS OF THE SCIENCE OF NATURAL PARTURITION.

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In this discourse I mean to direct attention, not to any original observations or new discovery in midwifery, but to the mode in which increasing knowledge of the function of natural parturition has been ripened into a science of this department of Medical study. The history of midwifery records the appearance of each new item of obstetrical knowledge, one after another, and attaches to it the honoured name of its discoverer or expounder. But the time has arrived when we may classify these discoveries and observations, and show how all this knowledge or mass of details can be arranged in logically connected order, so as to form a science of natural parturition. Doing this, we find their characters and order of succession to be full of suggestions, which are valuable in the sense of hastening future progress. If we, for the occasion, suppose, as we may justly do, that all this acquisition of knowledge and formation of a science has been effected by one great perennial obstetrical mind, it will facilitate our apprehension of the point of view I wish to occupy—namely, that of an observer watching and describing the method of philosophising which has been pursued by this supposed perennial obstetrical genius, and which has at length guided him in selecting from the heaps of detached pieces of obstetrical knowledge, accumulated for ages or only recently acquired, those shapely portions which were wanted to enable him, all within the last two centuries, to lay the foundation, and continue slowly rearing, the little court of the science of natural parturition in the great temple of modern science. It is the mode in which this genius has so successfully worked that I wish to describe.

There are many departments of midwifery, and of them the chief, in every sense of the word, is what is called Natural Parturition. To it alone do I now confine my remarks. It has advanced in scientific rank far before any other department. In proportion as natural parturition is more common than morbid labour, so is this department of science more important than that of unnatural parturition. Indeed, the science of morbid labour must always lag far behind that of natural parturition, and owe much of its progress to light reflected from that greater and higher neighbour.

Modern philosophers cannot, like the great majority of their predecessors, be reproached with disdaining utility. On the contrary, the expectation of direct practical results, or of what is in Medicine called practical bearings, is a powerful stimulant of their efforts after truth, and the attainment of improvements in practice is a chief source of their justifiable pride. But if they are wise, they do not work with a direct aim to practical results. They do not set about the search for gold by digging in the nearest field, but by the study of geology. They seek new items of knowledge with a view to the advancement of science, sure that practical good will, sooner or later, appear as the ultimate fruit of their labours; and that their discoveries and reasonings are essential preliminaries to the ripening of the full crop of beautiful practical fruit.

Cheered by such reflections, obstetricians cannot be too ardent in the pursuit of the science of midwifery. The labours of all the great, and in their times famous, Practitioners—but *mere* Practitioners—who have flourished since the world began, have done very little progressive work for the benefit of the race. That has to be slowly elaborated by an humbler sort, the men of science. Much, indeed most, of what is esteemed by the Practitioners of one age is forgotten or rejected by those of the next, and the circumstance shows its real character. To-day, we bleed like Sangrado; to-morrow, we don't bleed, but pour in alcohol. Both practices have, to the philosophical mind, an equally ridiculous character. The skill and wisdom of the Practitioner, so far as it really is such, is mainly of an esoteric character. It can neither be described nor handed down. It is the individual's property. Others may attain to equal or greater skill; they cannot inherit his.

On the other hand, Science, the grandest result of the efforts of the human intelligence, stands contrasted. Its achievements are certain, secure, beneficent. They may be diffused over the world without being thereby diluted. They are capable of being expressed in written language, and handed down to every coming age. They are as necessary to every coming age as to the age which saw their appearance. They are the best pabulum of that intelligence which is the most useful armament of the Practitioner; and they are the most prolific source of those more glaring and more directly, though less widely useful, practical discoveries which alone attract the vulgar gaze. They enable the informed Physician to distinguish the real gems from those flashy pieces of therapeutical paste which dazzle. I grieve to say, not only the public, but also a very large part of the Medical Profession.

Now we see partially the rich fruitfulness for mankind of Harvey's discovery. Without it, how very ignorant should we be as to the diseases of the heart and lungs. No doubt the Practitioner, were this knowledge awanting, would look very sagacious, shake his head *secundum artem*, and write a prescription, just as he does now; but what value could be attached to the advice or prescriptions of one so ignorant of the primary elements of a sound judgment? The practical men of Harvey's day did not recognise the practical value of his discovery; and I am not sure that I belie even the Practitioners of the present day, when I say that were Harvey's discovery—a set of dry mechanical details—hard reading—published for the first time now, when as yet practical results were only dimly foreseen by a few, they would turn from them without compunction, to regale themselves with the confident boasting of some vain discoverer of a new medicine or a new treatment, whose future history, unlike the ever-widening beneficence of Harvey's discovery, may be a mere drowning in the waters of Lethe, or nailing to the wall (as of some foul, injurious bird), but which may very probably deserve

(c) "Pulmonary Consumption, etc." By C. J. B. Williams, M.D., F.R.S.; and C. T. Williams, M.D., 1871.

the praise of being as useful as any of the other and older modes of treating the same malady.

The world had to wait very long before progress or even commencement in the science of parturition was possible. Knowledge of obstetrics was, from the earliest times, gradually increasing, and heaps of it were to be found among Practitioners and in books; but a science was impossible, because the essential knowledge was awanting. Obstetricians proceeded without sufficient data—they tried the deductive method; they vainly struggled to discover and to reason aright. They did not as yet fully see the first step of scientific progress. In evidence of this, I refer to the great work of Deventer, published in the first year of the eighteenth century. The knowledge collected in this book is very valuable, and especially noteworthy in the light of this discourse, for it preceded the dawn of obstetrical science, and its appearance and character might justly excite hope for the future.

There could be no beginning of scientific progress till at least the locality of the operations to be studied was known—till the common anatomy of pregnancy was described—till the rude outlines of the machine whose action was the subject of study were mapped out. Mundinus, Vesalius, Ruysch, Noortwyk, Smellie, and others had already flourished since the revival of learning, and had all made some contributions to the rough anatomy of pregnancy—and it was only the rough anatomy that was as yet desiderated. But for the science of parturition they all together did not enough; it was reserved for William Hunter to complete this satisfactorily. His great work was published in 1774, and this grand foundation-stone of obstetrical science still remains securely fixed, unsurpassed in perfection of elaboration, and more admired than when it left his hands. The most superficial observer must easily see that this first step—this foundation—was essential to future progress in the science. It was the first in time as well as in logical order; there were no other stones ready to be placed as soon as this was laid. Others were already in process of preparation, and they were soon required and used—being those which should properly come next.

Midwifery was now fairly started in a course of scientific progress. To advance it, obstetricians must follow William Hunter. If they do not, they go astray, and lose the fruit of their labour. Deventer's motto was, "Manet post funera verum." It was scarcely appropriate to the kind of work he did; but it fits William Hunter perfectly. He completed that body of truth which was the first requirement of the scientific obstetrician, and which was truly so designated by Deventer, who says,(a) "Primo. Requiritur generalis aliqua cognitio muliebrum, quæ generationi inserviunt, partium, quales eæ, ubi vel quo loco sitæ sunt: generalis, inquam, cognitio."

Already was this general knowledge of parts—the *generalis cognitio* of Deventer—insufficient in some points. On these it was necessary to get information of a precise kind, and one of these was the important subject of measurements. A body had to be propelled through a passage, and it was necessary to have a good idea of their comparative dimensions. But it was long before a correct view was got, because, before it could be obtained, it was necessary to find out the adaptation of parts in the body and in the passage, and their mutual relations.

As early as the middle of the eighteenth century Ould and Levret indicated in their writings some feeling of the want of knowledge of measurements, which has now grown to so large a department of descriptive obstetrics. They advanced farther than a mere vague feeling of this want, for they indicated the child's head and the pelvis as the chief parts correlated in the function of parturition whose dimensions should be studied.

The notions of Ould and Levret were far from being accurate or precise. This we may almost argue from Levret's comparing the circumference of the brim of the pelvis with the height of the individual. But though this great author did only a little for the subject of measurements, he distinctly pressed on the minds of students the great and fertile principle which has been the guiding star of all future explorers. Eminent men, even of his own country, have expressed their difference of opinion from Levret; but every day shows more and more that Levret was right, and that his assertion that parturition is a "natural operation, truly mechanical, susceptible of geometrical demonstration,"(b) will soon be nearly realised by the labours of philosophical accoucheurs. All progress in the science of natural parturition has been, and continues to be, made in the line indicated by Levret.

As we have already said, Ould and Levret did not do for measurements what William Hunter did for anatomy, and I know no individual name that deserves the place of honour in connexion with them. We have to come far on in the decades, past the time of Denman, to find them fully stated and their relations and importance understood. Even in some text-books of our own day there is great deficiency and evident want of intelligence in the authors—want of such just appreciation as is to be observed in the writings of Smellie, or such fulness and completeness as are found in the manual of Paul Dubois, published in 1849.(c)

The study of anatomy, and especially of measurements, necessarily leads to observation of shapes and directions. So, from the first, there have been attempts made to determine shapes, planes, and axes. Obstetricians are familiar with the learned writings on these points by Roederer, Stein, Bakker, Carus, Naegele, and others. But the writings of these authors could scarcely be expected to be complete enough for us. They could not, in their day, foresee the direction in which midwifery, as a science, would advance, and could not meet wants which were not felt. The subject of axes, especially, is found to be so connected with that of the exercise of force, that, even in our own day, determinations which were long considered quite accurate are subjected to reinvestigation.

Topography, measurements, shapes, axes—these were now all achieved pieces of obstetrical knowledge. None of these departments has as yet received the highest development which the inquiring mind of man can give it. But already, about the beginning of this century, not only was the want of knowledge of them felt, but the want was in a rough, yet satisfactory manner, supplied. The first stage of the progress of the science of natural parturition was completed. The passage to be traversed, and the body to be pushed through, are carefully measured and described.

Students, and even those of them who are at the same time successful pioneers of science, are very apt, when taking a retrospective view of the road over which they have travelled and of the difficulties which have been overcome, to underestimate the amount and value of the thought expended in finding the road, as well as the labour and ingenuity expended in overcoming the difficulties met with by the way. The student is like the woman who, as soon as she is delivered of the child, remembereth no more the anguish, for joy that a man is born into the world.

So, again, when the first stage of progress is finished and recognised, and the second pretty well elaborated, it is easy for our supposed perennial genius of obstetricy to see what should be the next; and, curiously enough, what is naturally expected to be the next stage is really so. The second stage of scientific progress has been far more difficult to effect than the first; and we may venture to predict that each succeeding stage will be more and more difficult than its predecessors. But though more difficult to effect, it is not more difficult to comprehend after it is effected—perhaps even the contrary; while it is, and will be, certainly more glorious to its promoters and more useful to mankind. It is only in a rough way that the second stage can be said to succeed the first in point of time, as it certainly does in logical order; but the student who enters into the details can, I believe, satisfy himself that, taking, as he must with this purpose, a wide view of the matter, the second has really followed the first in order of time.

The second great stage in the advancement of scientific midwifery is the discovery of the manner in which the fœtus traverses the maternal passages, and the alterations in form thereby produced.

The passage being known, and the body that has to be pushed through it being known, and it being known that the latter is large when compared with the former, and cannot easily or at all permeate it unless it is aptly placed and pushed, and that it generally requires strenuous exertion on the mother's part to force it on, it is evident that the next point to be studied is—How does it pass?

The answer to this great question involves a mass of details which have been, for the most part, well made out; yet many remain for investigation or for reinvestigation and confirmation, or the reverse. It had, for example, to be observed how the fœtus lies before it starts on its course, or, when it starts, how it is adapted to, or lies in, the passages at every stage of its course; how it emerges from the passages into the world; what changes in attitude it has in its course undergone, and

(a) "Ars Obstetricandi." 1733. Cap. ii.

(b) "Art des Accouch.," p. 83.

(c) The succession, in order of time, of cranial measurements to pelvic is well illustrated by the circumstance that while for a long time pelvimeters have been invented, and especially internal pelvimeters, internal craniometers have as yet never, so far as I know, been proposed, as they certainly ought to be.

when they took place; what changes in form it has undergone; how the placenta is separated, how it is expelled. When William Hunter's work was published none of these points was generally known; most of them were entirely undecided; some are not yet decided.

The second stage is peculiarly interesting to the obstetrical historian; for he observes that it was only after it had made decided progress that obstetricians generally began to see that the subject of their studies was not a mere heap of blocks and chips of knowledge, but that there was a true science of natural parturition. To speak figuratively, it may be said for the world, and especially for Great Britain, that it was only when Naegele's paper on the "Mechanism of Birth" appeared that the little plant of obstetrical science showed itself above ground. A new enthusiasm entered the Medical mind, and it has not died out, and will not, for it has living substantial roots. Every step in advance increases the growth, and stimulates the cultivators. The epoch of this new and generous enthusiasm can be easily fixed by historical marks; but it is also easy now to make manifest its weak juvenility. This is aptly illustrated by the very name of the memoir by Naegele—the "Mechanism of Birth," or rather the "mechanism of labour"; by which latter title the subject of it has been, and unfortunately is still, designated among the English-speaking nations. Naegele and his contemporaries and followers were fired with enthusiasm by the discovery of a new science. Their *eureka* was designated mechanism. They saw now, as a Profession, for the first time, the grand idea of Levret, and they gave this name to the limited branch of investigation which they had cherished. The whole plant was mechanical; they erroneously designated as "mechanism" one early leaf of it. Had William Hunter seen as far as Naegele, he might with equal justice, and perhaps he would, have named his volume of plates "the mechanism of labour." The mechanism of labour is a grand idea, for whose just application as the title of a book or of a chapter in a book we have still long to wait. We are still only working out the elementary parts of this mechanism. The second stage of the progress of the science of parturition has no more, perhaps less, claim than any other to this special name; and it is desirable that it should be at once denuded of an honour of which it is not worthy. To say that the course described by a train as it passes along the rails is the mechanism of railway travelling, is utterly absurd. But Naegele may well be pardoned this fault, seeing that he was the means of a great revival of the obstetric genius, and christened his work by a name which, though erroneously applied, expressed the grand basic idea of the whole modern progress of obstetries.

There are many names worthily connected with the second stage of our science's progress. Among these may be placed Ould, Smellie, Roederer, Solayres, Saxtorph, Naegele. All these, and many others, have contributed to its progress. But if one name is to be singled out for the place of honour, it is that of Solayres of Renhac, who flourished at Montpellier, was the teacher of Baudeloeque, and in 1771 published his dissertation "De Partu Viribus Maternis Absoluto."

Every point in the whole of this progress of the fœtus and placenta has been the scene of contests most interesting to watch. But this is not the place for historical sketches of them; and, besides, this piece of historical work has already been very thoroughly done. Truths have been attacked, errors introduced, errors corrected, errors revived, truths triumphant; and, after all, knowledge has increased, and has, with general acceptance, come to be regarded as positive. Now the great outlines of the subject are agreed upon, and for me, at least, well settled. But the obstetrical student of the present day knows that much is still wanting in this department, and much confirmation of what is generally regarded as secure knowledge. The works of Küncke and of Schatz, full as they are of observation, hypothesis, and clever reasoning, are too recent, and have too much shaken the obstetrical mind of the world to allow us to regard the second stage in the progress of scientific obstetrics with complacency as a work quite done and finished. We are justly proud that it is a work whose great features are easily seen, and whose place is well known and universally recognised.

In recent years an interesting feature has been added to this department of obstetrics, in the description of changes of form undergone by the propelled fœtus. It had been long known that the head was changed in form during labour, but the change that was chiefly dwelt upon was produced by alteration of the condition of the soft parts. The new investigations refer to changes undergone by the plastic cranium of the fœtus, and are an important addition to our knowledge, for which we are indebted to Dohrn, Barnes, Olshausen, Ahlfeld, and others.

If the second great stage of progress of the science of natural parturition is not nearly completed, if its maturity is not as that of the first stage, still it is old and highly developed compared with the third stage. It may be truly said, that as yet the Profession does not desiderate the increments of knowledge destined to be produced by the promoters of the third stage. The second stage has come nearly to completion during the first half of the nineteenth century. The third stage has only made a small beginning in the second half of the same century; but as the number, the zeal, and the attainments of the modern students of midwifery have increased above those of past times, we may expect a rapid increase of our knowledge and new eras for our cherished and beneficent science.

The first department of the science of natural parturition is occupied by the description of the passage and of the body to be passed. The second department is occupied with the description of the mode in which the fœtus passes, and the physical changes it undergoes during its passage. The third department of scientific midwifery is engaged with the forces employed to do the work. The sequence of the three stages is natural and logical, and also historical. The first two stages or departments are comparatively simple—they are mainly descriptive; but the third involves problems of much higher complexity than the first two. It taxes other faculties than that of observation; and its results both in theory and in practical usefulness will be much more conspicuous. It is destined to comprehend the knowledge of the amount of the efficient powers of parturition; their direction and application to the passages, to the bag of membranes, and to the fœtus at every part of its course. When the physicist considers the nature of the passages, their curvature, and their development during the process of labour, as well as the other factors in this function, he may be excused if he almost despairs of making progress. Many students are, however, already diligently occupied with work in this field, measuring forces, ascertaining angles, observing levers, studying the influence of curves. As might be expected in the present day, these students are chiefly to be found in the German schools; but there are cultivators of this department among the French and among ourselves. The Germans are, however, pre-eminent, and among them we may name Hecker, Poppel, Kehrer, Schroeder, Schulze, Winkler, and Schatz.

These three great stages appear to me to comprehend all that can be well called a constructed science in Midwifery—an ambitious title which I use and apply as it is used in describing the advanced parts of physics and of chemistry. Many departments of Medicine are regarded justly as in some sense scientific, while there is as yet no constructed science of them, nothing so advanced as in the part of obstetric science, which I have been describing. Among these departments I may cite as examples the great subjects of therapeutics and of lunacy. These are replete with valuable knowledge of a scientific kind, but they get no farther. They lean upon various neighbouring scientific departments of knowledge; but they are themselves destitute of scientific structure as departments of Medicine. There is in these subjects as yet only blind and often frantic groping for scientific order: there is no good foundation of a science of either of them laid.

These remarks I make partly in order to explain how it comes to pass that my sketch of the constructed science of natural parturition appears to be, and really is, so limited. In truth it goes no farther; and obstetricians may, perhaps, be proud that it goes so far as it does. But in addition to this science of natural parturition there is a very great accumulation of valuable pieces of obstetrical knowledge, all destined (I hope at an early day) to take their place in the constructed science, but as yet too chaotic for that ultimate destination.

There are two collections of obstetric knowledge in two great fields of obstetric labour, which deserve mention in this place. They are included in the physiology of parturition, but are engaged with matters which are not exclusively or purely obstetrical. I allude to the histology of the uterus and the functions of the various kinds of nerves supplying it. Although much has been done, and continues to be done, in these departments, yet ignorance may be said to prevail. We know nothing certain of the cause of labour, of the intermissions of pains, of the part of the nervous system presiding over the function of birth, of the connexion of the nerves with the muscular fibres, their nuclei, or their nucleoli; and we know the history of the decidua vera and of the serotina very imperfectly.

Besides these two great masses of knowledge in the science of

natural parturition, who will say how many more there are? Who will tell us how great is our ignorance? Each department was an unknown and probably unimagined territory to the most advanced obstetricians of earlier days; and there can be no doubt that new territories for exploration will be discovered, of which, as yet, the obstetric mind has formed not the slightest conception. Each stage of advance involves increased difficulty of progress, and demands increased education in its promoters. The obstetricians of the future must be more talented and as laborious as their predecessors; they are certain to be better informed.

All honest work contributes to progress; for if the result is not a new piece of knowledge for all obstetricians, it is probably new for some, and the time expended on it is not lost, for it has at least contributed to increase the intelligence of one obstetrician, and has added to the common stock of intelligence in the community of obstetricians.

The work most likely to be successful is that done in a spirit of utmost humility by a man well informed as to the limit of present knowledge. If I may presume to criticise the ingenuous labours of my contemporaries, I should say that the prevalent error is an overweening ambition. They try to go farther than it is as yet possible to go—faster than is consistent with safety—to establish a theory or a treatment without sufficient grounds. They should learn to do a small thing well before they try high tasks. They should study the history of midwifery, and, observing how small and easily made the greatest discoveries now appear to us, though they cost great labour to their authors, they may justly reflect that when the next great discoveries are made they will have the same appearance to our successors, but cannot at present offer such an aspect to ourselves. It may be thought that there was little ingenuity or merit in measuring the pelvis or the fœtal head, or in telling what part of the head first emerged from the mother's body; yet the world waited for more than a thousand years before these simple things were done, and one of them is even now the subject of respectable controversy!

After all my discourse is finished, I think I hear sounding around me, and finding an echo even within my own microcosm, the question—Can it be that our great and proud Medical discoveries, brought to the birth after such painful and tedious labours, are so simple that a child may comprehend them? Can it be that our highest Medical science of the nineteenth century is so elementary, so mechanical? Yet the more the question is forced home the more clearly does the affirmative answer come back; and it is amply confirmed by a wide circumspective view, as indicated by the answers to other like questions. Of what consist the greatest discoveries of man, if not in the discovery and application of the simplest mechanism? Regard the steam-engine and its applications, telegraphy, photography. Regard the ophthalmoscope, the laryngoscope, the stethoscope—a simple bit of wood, whittled into convenient shape—or any sound-conductor, to convey as much as possible of sound to the ear; yet a grand invention of recent times. In what consists the greatest modern scientific progress? Regard the already extensive and prospectively total reabsorption of chemistry by physics as an outlying or surrounding province. Regard the advancing researches in the nervous system, ever bringing the human frame nearer and nearer to the conditions of an as yet inconceivably fine automatic electro-magnetic machine. Regard the securest and best knowledge of the Physician in the departments of dropsies, of hæmorrhages, of embolisms, of unnatural labours. Before their exploration all these were inaccessible alps, utterly hidden or only dimly seen through thick clouds of ignorance; now they are green pastures by still waters, where a child may be safely led, and where a man may humbly step with courage, striving to subdue the next obstacle to his progress.

Professor Jaeger.—This distinguished Professor, a Foreign Associate of the Paris Society of Surgery, died on December 26, 1871, in his 88th year, having been born in 1784. Studying at Würzburg, Landshut, and Vienna, he established himself at this last city in 1812, confining himself to the practice and teaching of ophthalmology. His lectures were greatly resorted to, and among other distinguished Practitioners was Sichel, who afterwards introduced ophthalmology as a specialty in Paris. Very skilful as an operator, he continued until an advanced age the most delicate operations with surprising precision and firmness of hand. Dr. Preyss has published a long account concerning him in the *Œsterreich. Zeits für prakt. Heilkunde*, xvii., No. 53.—*Gazette des Hôpitaux*, January 27.

THE PATHOLOGY AND TREATMENT OF CHOLERA.(a)

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(*Concluded from page 97.*)

The abrupt stoppage of the blood-stream by arterial contraction explains those cases of rapidly fatal collapse in which the discharges have been either absent or extremely scanty. So long as the circulation is unimpeded, the amount of discharges, resulting from the dose or the virulence of the poison, is an index of the severity of the disease; but from the time that an impeded flow of blood through the lungs begins to check excretion from the alimentary canal, there ceases to be a direct relation between discharges and the degree of collapse. In the worst cases the relation is inverse: the more extreme the collapse, the more scanty are the discharges; in other words, the impeded circulation, which is the immediate cause of collapse, arrests or very much lessens excretion from the stomach and bowels. Feebleness of the muscular walls of the heart does not explain the arrest of the circulation in cholera. There is no poison which has the effect of weakening exclusively the right side of the heart; and weakness of the right side of the heart would not explain the fact that, while the blood has been abruptly stopped just before reaching the capillaries, the trunk of the pulmonary artery is so distended that when its walls are punctured soon after death the blood spurts out with considerable force, showing that, while the right ventricle had continued to contract, some obstacle in front had prevented the onward movement of the blood. In addition to the debilitating effect of copious discharges there probably is some weakening of the heart's walls during collapse, in consequence of the scanty circulation of blood through the coronary as through all the systemic arteries. This weakening of the heart's walls affects equally both sides of the heart, and is a consequence and not the cause of the impeded pulmonary circulation.

The dark and viscid condition of the blood is a result of its defective aëration and movement. The same condition of blood occurs in all forms of apnœa. Slowly moving, imperfectly oxygenised blood becomes dark, thick, and treacly, and in extreme cases coagulates within the vessels. On the other hand, so long as the circulation and respiration are unimpeded, mere loss of water does not thicken the blood, for the reason that water is rapidly absorbed from the soft tissues throughout the body to supply the place of that which is lost by vomiting and purging. By a like process the action of a hydragogue purgative promotes the absorption and then the expulsion of a dropsical accumulation. So rapid is the absorption of water from the tissues when the contents of the vessels are escaping, that the blood which flows from a vein at the end of the operation of venesection is more watery and of lower specific gravity than that which escapes when the vein is first opened. After the choleraic discharges have ceased, the borrowed water has to be restored to the now partially dehydrated tissues, and the urine remains suppressed or scanty until the tissues have regained their normal proportion of water.

The greatly diminished, almost suspended, secretion of bile and urinary solids, and the lessened exhalation of carbonic acid, during collapse are explained by the defective circulation of the oxygen-bearing blood to the tissues. Bile, urine, and carbonic acid are joint products of oxidation. In contrast with these excreta it is found that, when a nursing mother is passing through the stage of choleraic collapse, the mammary secretion continues and the breasts become distended; the reason being that the milk-constituents—casein, sugar, oil, and water—are not oxidised products.

It has been suggested that the continuance of the mammary secretion during collapse is the result of a supposed antagonism between the nutritive and the reproductive functions, it being assumed that the reproductive functions are unaffected by cholera. This fanciful notion is at once disposed of by the fact that the fœtus in utero is, in a large proportion of cases, killed by cholera affecting primarily the mother. M. Briquet, referring to a tabular statement by MM. Bouchut and Millet, shows that, out of 120 pregnant women who had cholera, abortion occurred in fifty-four. He says there is reason to believe that the death of the fœtus often occurs before its expulsion, and adds, in confirmation of this, that the infant

(a) A paper read at a meeting of the West Kent Medico-Chirurgical Society at Greenwich, January 5, 1872.

was born alive in only six out of sixteen cases of abortion occurring during the progress of cholera.(b) Since "the life is more than meat," the death of the fœtus proclaims, notwithstanding the continuance of the mammary secretion, that the reproductive functions, as such, are not untouched by cholera.

The marvellous temporary relief which follows the injection of a warm saline solution into the veins during collapse, is due partly to the morbid blood being diluted, and thereby rendered less irritating to the resisting pulmonary arterioles, just as diluents taken into the stomach, and there absorbed and passing off by the kidneys, relieve the pain and spasm of strangury. But the immediate effect of the saline injection is mainly due to the relaxation of the arterial spasm in the lungs by the high temperature of the injected fluid, and with this the removal of the impediment to the free circulation of blood. It has been found by those who have had most experience of this method of treatment that hot injections are more efficacious than those of lower temperature. It has also been found that the application of warmth to the surface of the body, and the injection of hot liquid into the bowel, have often had the effect of greatly improving the circulation, and so mitigating the symptoms of collapse.

While the immediate and most striking results of the injection into the veins are due to the relaxation of the resisting arterioles, it is probable that the injection may indirectly assist recovery by increasing the liquid medium for conveying the poisonous products out of the vessels, just as a copious imbibition of water helps to clear and cleanse the bowel.

To sum up, then, the main points relating to the pathology of cholera. The exact nature of the cholera poison—as of every other morbid poison—is unknown. We know nothing of the nature of morbid poisons beyond what we learn of their influence upon the fluids and tissues and functions of the living body. The cholera poison is probably as specific in its nature as that of small-pox, but it certainly has a very close affinity with filth. We inhale the gaseous products of decomposing organic matter, or, as a result of our defective sanitary arrangements, we drink diluted sewage, with which it may be that the poisonous choleraic discharges have been mingled. If the dose of the poison be moderate, the loathsome stuff is soon expelled by vomiting and purging. If, however, the foul leaven be more abundant or more virulent, or if its exit from the body be hindered by opiates and astringents—so that, the natural expulsive efforts being thwarted, the morbid material has time to multiply and accumulate—it may by its irritant action so excite the contraction of the arterial stopcocks as to bar the passage of blood through the lungs. Thus collapse occurs, and the danger is incalculably increased. During the period of collapse the blood undergoes great changes—partly through the multiplication of the cholera poison, partly through the defective oxidation of the blood and the tissues; hence, when reaction comes on, there is excessive oxidation of accumulated combustible products, and often a dangerous and destructive consecutive fever.

In the *treatment* of cholera and choleraic diarrhœa (which is, in fact, cholera in a mild form), the main principle to bear in mind is, that the discharges are as essentially curative as is the cutaneous eruption of small-pox. The practice of arresting or attempting to arrest the discharges by opium was based upon an erroneous theory of cholera; and experience, apart from all theory, has proved that the practice is unsuccessful and injurious. No theory or pathological reasoning is required to demonstrate that the choleraic discharges have usually a peculiar and offensive odour, and that their retention within the bowel is a frequent source of distress and danger to the patient. The effect of opiates in the diarrhœa stage is various. In a large proportion of cases the absorption of the opium is prevented by the rapid flux of liquid from the blood into the bowel; and so, being expelled together with the morbid secretions, it is powerless to arrest or even to check the discharges. In a considerable proportion of cases the opium causes sufficient torpor of the bowels to prevent their prompt and complete evacuation; the result is that the diarrhœa is prolonged, or, being arrested for a time, it again and again returns. A more decided arrest of the diarrhœa by opium is often followed by painful distension of the bowels and abdomen, the tongue becomes coated, and fever is excited. Again, in other instances, as in the case referred to at the commencement of this paper, a prompt arrest of the diarrhœa by opiates is quickly followed by collapse of an alarming and fatal character.

That plan of treatment for diarrhœa is obviously the best which most speedily and completely puts a stop to the disease without subsequent ill-effects. The most rational and the most successful method of treatment is the cathartic system, using that term in its wide and literal sense of cleansing or purifying. A cathartic is not of necessity a bowel purgative. There is one simple "cathartic" remedy which is almost universally applicable in all forms and stages of the disease, and that is a plentiful supply of cold water to flush the intestines and to wash out the poisonous discharges. A copious imbibition of pure cold water will suffice for the cure of most curable cases of cholera. This will appear too simple a remedy for many patients and many Practitioners, who will have more faith in the liquid draughts if they hold in solution some acid or alkali, or some aromatic and carminative drug, supposed to have a curative influence. There are many cases in which something more than diluents is needed. Palpation and percussion of the abdomen often reveal the fact that the bowels are more or less distended by morbid secretions, which are frequently poured out with great rapidity. This distension of the bowels, if not promptly relieved, may even go to the extent of causing paralysis of the muscular coats of the intestine, and so an insuperable obstruction; more especially is this likely to happen when the sensibility of the bowel has been deadened by narcotics, but I have seen it occur under the expectant treatment by coloured water. The choleraic secretions appear often to have but little stimulant action upon the bowel, which consequently becomes over full, while little or no expulsive effort is made. The plan to prevent and to remove this painful and paralysing distension is to give some quickly acting yet unirritating evacuant dose. For this purpose castor oil is, on the whole, better suited than any other remedy. If it be thought desirable to disguise the taste of the oil, this can be effectually done by mucilage and cinnamon water. The objection sometimes raised, that all medicines must be useless because none are absorbed, does not apply to such a remedy as castor oil, which, by its merely local action upon the mucous surface, stimulates the bowel to expel its contents. The intention and, I believe, the effect of the oil is not to increase the amount of secretion from the blood into the bowel, but to facilitate and quicken the expulsion of the morbid secretions.

Castor oil has no special curative influence, and other evacuants may be substituted for it, if, on account of its taste, or the difficulty of retaining it on the stomach, or for any other reason, the oil be objected to. Rhubarb (either in the form of tincture or powder), Gregory's powder, or a few grains of calomel (either alone or combined with rhubarb or colocynth), may be substituted for the oil.

If the diarrhœa have continued for some hours, the stools having been copious and liquid; if there be no griping pain in the bowels, no signs of distension of the intestines, the abdomen being flaccid and the tongue clean, we may conclude that the poison has escaped: there will, therefore, be no need for an evacuant dose, and we may safely soothe the bowels by an opiate. While there are some cases in which an evacuant is not required even at the commencement of the attack, there are others in which the opiate is unnecessary in the later stage.

The opiate should be withheld so long as there is reason to believe that the blood is poisoned or the bowel distended by morbid secretions. The cause of the diarrhœa should be carefully sought for. It has often happened that diarrhœa which has continued from day to day has been excited and perpetuated by the breathing of impure air or the drinking of contaminated water. In such cases the only safe course is to discover and avoid the exciting cause of the symptoms.

If the diarrhœa be associated with vomiting this should be assisted by copious draughts of cold or tepid water. If there be nausea, without vomiting, and more especially if the stomach be supposed to contain undigested or unwholesome food, or morbid secretions, an emetic may be given—either a teaspoonful of powdered mustard, or a tablespoonful of common salt, or twenty grains of powdered ipecacuanha in warm water.

When vomiting is excessive in violence or in frequency, it may sometimes be checked by small draughts of iced water at short intervals. Another plan is to place three grains of calomel on the tongue, and wash it down with cold water. The calomel probably operates by reversing the action of the stomach and bowels, and thus causing evacuation downwards. When given as a powder it is less likely to be rejected by the act of vomiting than when it is made into a pill. While the diarrhœa continues the diet should be liquid and scanty; milk, rice, or arrowroot with or without a small quantity of brandy, gruel, or beef-tea may be given.

(b) "Mémoires de l'Académie Imperiale de Médecine," tome 28, p. 238.

In all cases of severe diarrhœa the patient should remain in bed.

As to the treatment during the stage of collapse, it should be distinctly understood that in the worst forms of cholera, as the disease often presents itself at the commencement of an epidemic, and in most cases of pulseless collapse, the disease is so deadly that no treatment can be of any avail; and a sure way to bring discredit upon any method of treatment is to apply it in this desperate class of cases. It is obvious that castor oil is as powerless to overcome an extreme impediment of the pulmonary circulation as croton oil to remove a large blood-clot from the brain. In cases of extreme collapse it is much easier to do harm than good. The injurious influence of opium and alcohol in the collapse stage is now almost universally admitted. Their noxious effects are intelligible if we bear in mind that during collapse, in consequence of the impeded circulation, the oxidation of the blood and tissues is greatly diminished, and that both opium and alcohol still further impede oxidation, while opium also retards the escape of the poison.

The collapsed patient should be strictly kept in the recumbent posture—he should not be raised even to go to stool; he should be abundantly supplied with fresh air, and allowed to drink pure water freely. The water may usually be taken cold—that is, of the temperature of the room—but it should not be iced, except occasionally to check excessive vomiting. Large quantities of iced water may do harm by chilling the patient and checking the process of cure by elimination. Some care is required not to over-distend the stomach by liquid. Unless vomiting occur from time to time, the drinking of large quantities of liquid may so distend the stomach as to impede the breathing, and thus cause much distress.

The muscular cramps of cholera are probably excited by the action of the poisoned blood upon the nerves and muscles. As a rule, cramps are more frequent and severe during the diarrhœa stage than during collapse. Whenever they occur, they may be relieved by rubbing the affected parts with the warm hand alone, or with the addition of a stimulating or anodyne embrocation. Cramps in the legs are often most effectually relieved by hot flannel fomentations covered by macintosh. Hot baths, whether of water or of air, certainly relieve the cramps, and effect a temporary improvement of the circulation; but, on the whole, it is a question whether they are not more distressing and exhausting than beneficial. The temporary improvement of the circulation by hot baths is one fact amongst a number pointing to an essential difference between the collapse of cholera and ordinary exhaustion. An exhausted patient usually becomes more feeble and faint when placed in a hot bath.

Five grains of sesquicarbonate of ammonia may be given in an ounce of camphor mixture every two or three hours as a diffusible stimulant.

If we carefully observe the condition of a patient in collapse, we shall often find that the intestines are more or less distended with liquid, while perhaps there is general torpor and little or no effort at expulsion, the vomiting and purging having ceased. Again, it has often been found that, although there has been much watery purging during life, the small intestines contain after death a large amount of a peculiar, viscid, dirty-white material, having a very offensive odour. An occasional dose of castor oil may be useful in removing both these conditions—namely, over-distension of the bowel by liquid, and retention of offensive viscid secretion. I have no doubt that by this treatment, watchfully and carefully carried out, I have rescued patients who would have died if they had been left to the unaided efforts of nature.

It may be confidently maintained that since the choleraic discharges are the result of specific blood changes, induced by a morbid poison, no ordinary purgative can increase those discharges, although it may facilitate and quicken their expulsion.

It is worse than useless to attempt to *feed* a patient during collapse. The secretions of the stomach are utterly deranged, and the power of digestion is suspended. The blandest nourishment given at this time often adds to the feeling of oppression and general distress, from which the act of vomiting sometimes gives immediate relief. After reaction has occurred, and when the normal secretions are restored, the mildest nourishment should be given frequently, but in small quantities—such as milk, gruel, or rice, or arrowroot with a small quantity of brandy, soup, or beef-tea, or chicken broth. Until the secretion of bile and urine has been restored, neither alcohol nor opium should be given.

Hot saline injections into the veins have unquestionably saved life in some apparently desperate cases of collapse. I have already given what I believe to be the true explanation of their operation.

Consecutive fever is more common when, during the earlier stages of the disease, opium and alcohol have been freely given; but it may occur after severe and prolonged collapse, when no such means have been employed. The best treatment consists in a liquid diet without alcohol; copious diluent drinks, with saline effervescing draughts; an occasional aperient, such as castor oil or a Seidlitz powder; hot fomentations, or dry cupping over the lungs and kidneys, and sometimes local bleeding to relieve congestion of those organs.

When the urine is suppressed or scanty, one of the safest and most efficacious diuretics is the "imperial drink" (cream of tartar and lemon), from one to three pints of which may be taken cold in the course of the twenty-four hours.

Before I conclude, I wish to comment briefly upon two statements which have often been made by the opponents of the evacuant or cleansing treatment of cholera.

The first is, that if the diarrhœa can be stopped before the onset of collapse, the patient is saved. I have before said that the best treatment for diarrhœa is that which most speedily arrests it without subsequent ill-effects; but it is certain that the sudden arrest of the diarrhœa by opium has often been the immediate precursor and cause of collapse.

The second statement is, that the action of an aperient has sometimes been followed by fatal collapse. This is probable enough. In like manner, the application of a mustard poultice for a sorethroat has often been followed by fatal scarlet fever. While I would deprecate the needless or careless employment of aperients at all times, but more especially during a cholera season, it appears to me about as reasonable to suppose that scarlet fever may be caused by a mustard poultice, or typhoid fever by a purgative, as to attribute an attack of cholera to the operation of a dose of rhubarb. When cholera has followed such a dose, the reasonable inference is that the disease was latent in the system before the drug was taken. I was once accused of having "brought out the small-pox" in a child by a saline mixture which I had prescribed for a feverish attack. It is obvious that that which thus comes out has before been latent within, and its outcoming may be the saving of the patient.

CHEMICAL EXAMINATION OF THE URINE.

By J. ALFRED WANKLYN,
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Some experiments made during the past year have led me to believe that Medical men would do well if they were to supplement, or even to replace, the determination of specific gravity of urine, to which they almost invariably resort, by determinations of the solids left on evaporation and of the ash left on incineration. That the determinations of specific gravity actually made in the course of practice are often faulty through inattention to the temperature, whilst a slight alteration in specific gravity corresponds to a great alteration in solid contents, will be at once admitted. Moreover, whatever value a specific gravity determination of urine may possess depends on its being in some sort an index, more or less accurate, to the solid contents of the urine. I believe that an exaggerated idea of the trouble involved in taking solid residues, and a notion that the amount of residue is inconstant, depending upon the custom of operating upon an inconveniently large quantity of liquid, accounts for the disuse of so obvious a procedure as the direct determinations of the solids and ash in urine.

The following experiments show that there is no difficulty in obtaining these data, and that they are very constant:—

A very accurate 5 cubic centimetre pipette (not 0·05 cubic centimetres in error, as was ascertained by weighing the water discharged by it) was employed. With this pipette 5 centimetres of urine was measured out into a small platinum dish, the weight of which had been ascertained. The dish with its contents was then placed in the water-bath and heated for one hour, and then cooled, and with its solid contents weighed. It was then heated again for half an hour, and reweighed. Finally, it was heated a third time for another hour, and reweighed. This experiment was made three times on urine

belonging to the same sample. The following are the results:—

(Quantity of urine taken, five cubic centimetres.)

	After drying at 212° Fahr. for 1 hour.	1½ hour.	2½ hours.
Experiment I.:—			
Weight of dish and residue	12·692	12·687	12·687
„ empty dish	12·484	12·484	12·484
Therefore, residue	·208	·203	·203
Experiment II.:—			
Weight of dish and residue	12·743	12·737	12·737
„ empty dish	12·534	12·534	12·534
Therefore, residue	·209	·203	·203
Experiment III.:—			
Weight of dish and residue	12·223	12·216	12·216
„ empty dish	12·017	12·017	12·017
Therefore, residue	·206	·199	·199

Calculated in percentages, we have, therefore, 100 cubic centimetres of urine, yielding respectively:—

	1 hour.	1½ hour.	2½ hours.	
Experiment I.	4·16	4·06	4·06	grammes of residue.
„ II.	4·18	4·06	4·06	„ „
„ III.	4·12	3·98	3·98	„ „

This shows that a urine residue is very constant in weight, and that a period of one hour and a half is sufficient for its complete desiccation.

In order to determine the amount of mineral matter in the urine residue, all that is necessary is to ignite it for a short period, when it will leave a grey residue. It is not desirable to prolong the ignition until the residue becomes quite white, and the addition of nitric acid (which is sometimes advised) is to be absolutely condemned. Either of these procedures, and especially the latter, will cause an appreciable loss. The trace of carbon, on the other hand, which makes the difference between a white and a grey ash, is comparatively a trifling matter.

In the specimens of urine which furnish the above results, it was found that five cubic centimetres left 0·075 gramme of ash, therefore 100 cubic centimetres yielded 1·50 gramme of ash.

The success of these determinations, and certainly their facility, depends to a great extent on the employment of an appropriate quantity of urine—on not working on too large a scale. The 5 cubic centimetres of urine equal about 77 grains, and those persons who prefer to use grain weights would do well to take a 100-grain pipette, and, if they had operated on the above sample of urine, would have arrived at the result that 100 fluid grains of urine contained 4·06 grains of solids, of which 1·50 grain was mineral matter.

Besides the sample of urine just mentioned, I have examined a good many others on different occasions. The following will serve as examples:—

	Specific gravity of the sample at 60° F.	Weight, in grammes, yielded by 100 cubic centimetres. Total solids.	Mineral matter.	Organic matter.
A	1·020	4·52	1·56	2·96
B	1·0176	3·86	1·46	2·40
C	1·0057	1·40	0·60	0·80
D	1·0167	3·86	1·48	2·38
E	1·0101	2·66	0·63	2·03
F	1·0185	4·03	1·50	2·53

Sample C had been passed by a man immediately after taking some beer. Sample E was from a patient suffering from some disease of the kidneys. F is the urine the analysis of which has been given in detail, the mean of the three determinations being taken.

On inspecting these numbers, it is interesting to note that the pathological specimen—viz., E—exhibits an extraordinary ratio between the organic matter and the mineral matter (mineral matter 0·63, organic matter 2·03), there being three times as much organic matter as mineral matter. Not one of the other samples (which are from healthy persons) exhibits so high a ratio as twice as much organic matter as mineral matter. In order, however, to derive as much benefit as possible from examinations of urine, the total quantity of urine passed by a patient in a given period, extending possibly over several days, should be saved, measured, mixed together, and analysed. In this way, using the above method, it would be easy to arrive at a fairly accurate estimate of the amounts of organic and mineral matter excreted by the kidneys in a given time. The mineral matter admits, also, of further analysis in several obvious ways—thus, the chlorine may be determined, and also the phosphates, by well-known volumetric processes.

Liebig's method of estimating urea, by means of standard solution of nitrate of mercury, is acknowledged to have rendered excellent service, and to have furnished a very good approximation to the nitrogenous excretion by the kidneys. I have made a special adaptation and modification of the ammonia process, which Chapman, Smith, and myself applied to water-analysis some few years ago. This modification is designed to meet the case of urine, and to furnish a substitute for the Liebig's urea-determination, and, in laboratories where the water process is already worked, will be found easier of execution than the Liebig's urea-titration.

My process is carried out as follows:—

Five cubic centimetres of urine are placed in a 500 cubic centimetre measure, which is filled up to the 500 cubic centimetre mark with water. Thus there results a dilute solution of urine, of which each cubic centimetre contains $\frac{1}{100}$ cubic centimetre of urine. Of this dilute urine either 5 or 10 cubic centimetres is the proper quantity to be taken for an experiment. A strong solution of potash is prepared (17 to 20 per cent. solution). This is boiled, and carefully tested for ammonia and for nitrogenous organic matters. These being absent, the potash solution may be used. About 10 cubic centimetres of it with 5 or 10 cubic centimetres of the above-described dilute urine is evaporated to dryness in a small retort, placed in the oil-bath, and heated to about 160° Cent. The ammoniacal distillate is condensed with a small Liebig's condenser, and properly diluted with water and *nesslerized;* and so the amount of ammonia furnished by the action of potash on the urine may be measured. A few little precautions have to be taken; thus, a little fresh water must be put into the retort, and the heating to 160° Cent. repeated until no more ammonia distils over. After the action of the potash is complete, solution of permanganate may be introduced, and so the "albuminoid ammonia" determined.

The working of this process has proved to be very easy and satisfactory. The sample of urine yielding 1·50 gramme of mineral matter and 2·53 grammes of organic matter in 100 cubic centimetres of urine, furnished quite constant results in two experiments—viz., 0·92 gramme of ammonia from 100 cubic centimetres of urine. In a single trial I also obtained 0·06 grammes of "albuminoid ammonia" from 100 cubic centimetres of this urine. This result requires verification. Probably the small quantity of "albuminoid ammonia" is from Thudichum's kryptophanic acid and allied substances; and any way, in the action, first of potash and then of permanganate of potash, we have a very promising method of attacking urine. Obviously a urine containing albumen would disclose that fact when the treatment with permanganate came to be applied.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. II.

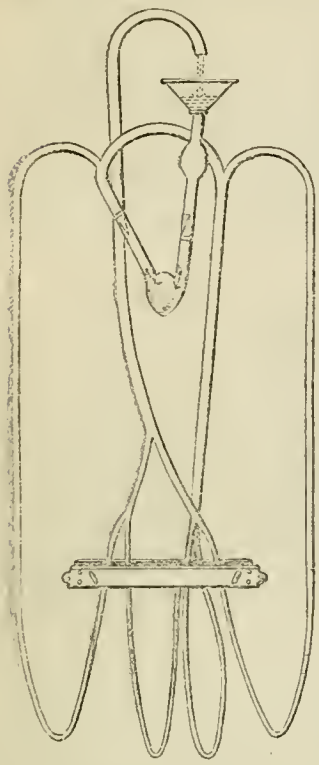
Description of a Schema—The Normal Pulse—The Percussion and Tidal Waves.

In order to study the pulse in disease, it will first be necessary to understand it perfectly in health, and to appreciate, as far as possible, which of the various phenomena of the circulation combine to produce the various details of a pulse-tracing. Much has been written of late years on this subject; in our own country, Dr. Sanderson especially has thrown great light on the arterial movements. Many points may therefore be accepted as well-ascertained; but, besides much truth, numerous errors and a vast variety of theories have been formed. I propose in this and the following paper first to assign the meaning I have been led to attach to each portion of a pulse-tracing by my own observation and experimental investigations, and afterwards to give such proof as lies in my power of the truth of my statements.

In order to facilitate the study of the pulse, and to apply to each theory the crucial test of experiment, by the kind permission of Dr. Pavy, I have constructed, in his laboratory at Guy's, a schema of the circulation somewhat resembling Marey's, in which the mechanical conditions of the pulse can

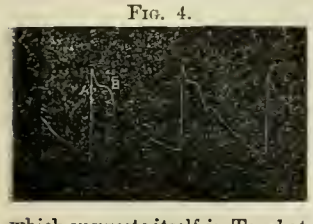
to a certain extent be imitated. The accompanying diagram shows the construction of the schema that has been employed in the experiments to be described. The left ventricle of the heart is represented by an indiarubber bag having two necks, into which are introduced two short pieces of large glass tubing, containing valves representing the mitral and aortic valves of the heart; each valve consists of a hollow cone, made of caoutchouc, and attached to the glass by wire passing through two fine holes bored in the tubing. One part of the base of the cone is therefore retained in apposition with the interior of the tube, the remaining circumference being unattached. A column of water, flowing in the direction indicated by the arrows in the diagram, compresses the cone against the side of the tubing, and has free passage, while a flow in the opposite direction distends the cone, and keeps its circumference in close apposition with the wall of the tube. To the tube containing the aortic valve a system of vulcanised indiarubber tubing is attached, representing the aorta giving off from its arch the two subclavians, and terminating by dividing into two branches to represent the external iliacs. The subclavians and iliacs are continued by tubing gradually diminishing in size; the four smallest-sized tubes are then conducted between two pieces of wood fixed to the board, on which the whole is suspended, having four shallow grooves, capable of being screwed close together, so as to completely constrict the tubes passing between them, and of being unscrewed to allow of dilatation of these tubes to their ordinary dimensions. By this means the capillary obstruction can be imitated and regulated. Having passed this representation of capillaries, the tubes now represent veins; they join by means of Y-shaped junctions, first to form two and afterwards one tube, representing the inferior vena cava, which empties itself into a funnel connected to the glass tube containing the mitral valve by a piece of wide vulcanised tubing, in the course of which is introduced a thin, distensible indiarubber bag to represent the auricle. This is always full, and insures a constant supply of fluid to the ventricle during its dilatation or diastole. The contraction of the ventricle is produced by the hand. The hand has been said to be an inefficient way of representing the contraction of the heart; but by practice it may be made to do so in the most perfect manner, as the tracings obtained will show. Every variation in the heart's action may be thus imitated, and the force employed regulated at will. Tracings may be obtained from any part of this system of tubing. It will be convenient to speak of the large-size tubing in the arterial part as the aorta, the medium size as the brachials and femorals, and the smallest size as the radials and posterior tibials.

Fig. 3.



It will, however, be necessary to obtain some idea of the form of the normal pulse, and of the terms used to describe it, before its imitation be attempted or the theories of its production discussed. Fig. 4 represents a pulse-tracing, in which all the undulations usually met with are visible; it may be taken as a typical pulse for analysis. The first question which suggests itself is, To what is the almost vertical upstroke (marked A) due? It appears that the first and main upstroke in a pulse-tracing is almost invariably due to percussion, and might with advantage be called the *percussion-stroke*. This term will be employed to denominate it in these papers. It is produced usually by the shock received by the blood-column on the sudden bursting open of the aortic valves, which is transmitted almost instantaneously throughout the whole arterial system, the column of blood transmitting it as a solid body, and imparting it to the arterial walls. It is to be entirely separated from the true pulse-wave, except under certain conditions to be mentioned below, when it is identical with it. It indicates the suddenness and force of the heart's contraction, and forms an important pathological element of the tracings obtained in acute and other diseases; but it does not by any means afford a guide to the amount of blood impelled into the aorta at each systole. The truth of this statement it will be my endeavour to prove hereafter.

Fig. 4.



After the percussion-stroke, a sudden fall of the lever—*i.e.*, collapse of the artery—is seen. This, however, is cut short at B by a slight elevation of the lever—*i.e.*, distension of the artery—or, as in this instance, only by an arrest of its downfall; this is the true *tidal wave*. The whole of the tracing anterior to this may be called the *percussion-wave;* this term will therefore include the percussion-stroke. The interval between the percussion-stroke and the next elevation of the lever almost corresponds to the interval between the contraction of the heart and the transmission of the pulse-wave to the radial artery; it strictly corresponds to the interval between the transmission of the percussion-stroke and the tidal wave. The height of this second elevation above a line drawn horizontally through the bases of the percussion-strokes indicates the amount of blood forced into the arterial system at each ventricular systole; it need not bear any proportion to the height of the percussion-stroke; the pressure required to extinguish it indicates the real amount of propulsive power of the cardiac contraction. The pressure employed to obtain a perfect tracing giving the full height to the percussion-wave does not necessarily bear any relation to the power of the heart; for though only a light pressure may be required to cut short the percussion-wave, a much heavier one may be necessary before the tidal wave is diminished.

The succeeding portion of the tracing, as far as the next sudden elevation of the lever, corresponds to the passage of the true pulse-wave or tidal wave through the artery, the force of which is diminishing, and the elastic walls of the artery steadily contracting upon it. It forms a curve, the concavity of which is downwards, scarcely perceptible in a normal pulse, but well marked in some forms of disease. The next elevation met with is the true dicrotic wave of the pulse, C; the lowest part of the notch preceding it corresponds with the closure of the aortic valves, and is called the aortic notch. The systole of the heart here ends, and diastole begins. This elevation Dr. Sanderson has aptly called the "diastolic expansion or arterial systole." It is produced by the contraction of the elastic coat of the aorta which takes place at the termination of the ventricular systole. During the first part of the systole the blood is impelled throughout the whole arterial system, but the obstruction met with at the capillaries checks its onward current, and during the remainder of the systole the aorta becomes distended by the blood expelled from the ventricle. The contraction of the aorta which now ensues closes the aortic valves, and sends a fresh wave of blood through the arteries. The conditions required for the increase or decrease of this wave are numerous and complicated; they will be considered below.

The remaining portion of the pulse-tracing shows a steady fall of the lever, indicating the gradual collapse of the artery, from the contraction of the elastic walls of the bloodvessels; it often presents another slight undulation in its course, again due to the efforts of the elastic walls of the arteries to overcome the capillary resistance to the blood current.

The pulse-wave may therefore be divided into two parts corresponding to the ventricular systole and ventricular diastole. The first portion is composed of two factors—*i.e.*, the percussion and tidal waves; the second also of two—*i.e.*, the arterial diastolic expansion and the (more or less) uninterrupted contraction of the elastic coat.

Ventric systole { Percussion-wave. / Tidal wave.

Ventric diastole { Diastolic expansion or arterial systole. / Contraction of elastic coat.

There remains but one more point to be observed, and that is what is called by Marey the *ligne d'ensemble*, or may appropriately be entitled the respiratory line; it is formed by a line

drawn through the lowest points of the percussion upstrokes. It should be perfectly horizontal, but as it depends on the arterial tension it may vary under certain pathological conditions, being influenced by respiration.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

GUY'S HOSPITAL.

CASES UNDER THE CARE OF MR. BRYANT.

Lipoma, size of a walnut, on Plantar Surface of Second Toe.

Jane W., aged 44, came under my care at Guy's Hospital on September 27, 1866, for a swelling beneath the second toe of her right foot. It had been growing for fifteen years, and had been painless. It was troublesome only on account of its size. The tumour was apparently cystic and soft. Fluctuation could not, however, be made out. It was beneath the skin and soft, but not lobulated to the touch. I punctured it for diagnostic purposes, when nothing came away, and subsequently excised it. The tumour was made up of small lobules of loose fat. A good recovery followed.

Symmetrical Nævi in a Male and Female Twin.

Mary and John G., twin children, 8 years of age, were brought to me at Guy's Hospital on May 30, 1867. Each child was the subject of a nævus, the size of a sixpence, at the external angle of the right eye. The symmetry of the two growths was remarkable, being the same size and shape in both children. Mary was a very fair child, and John a dark one, and in features there was but a slight resemblance. The nævi were not apparently growing, so they were left alone.

Ulceration of the Cicatrix of a Burn following Ill-health.

William G., aged 48, came under my care at Guy's Hospital on January 18, 1866, for an ulcer of the right thigh. It had existed for five months, and was situated in the centre of a cicatrix, the result of a burn thirty years previously. It had come on after a serious illness, which had left him very feeble. He had had an ulcer on the same spot eight years previously from the same cause, which healed as soon as he had regained his health. Under tonic treatment the ulcer rapidly healed, and in one month he was well.

This case was a good one, showing how cicatricial or new tissue has a tendency to undergo degenerative changes or ulceration on any marked decline of a patient's powers making itself manifest.

Chronic Sloughing Ulcer on Leg (encircling the limb)—Necrosis of Tibia—Chronic Œdema.

Elizabeth L., aged 38, admitted August 4, 1871; married thirteen years; no children or miscarriages. "No illness till 14 years old," then had severe erysipelas in left leg and foot; attributes it to getting wet. It became much swollen, and a Surgeon was sent for, who said it was rheumatism, and so treated it. Got worse; sent for another Surgeon, who said it was erysipelas, and lanced it in numerous places; blood escaped; leeches and poultices were afterwards used for six months, during which the leg remained swollen and painful. At the end of nine months it began to improve, when on the centre of the anterior surface of the right leg a small black spot appeared, which was painful, and quickly became a wound, for which five years ago she attended St. Bartholomew's as an out-patient. About three years ago the wound had increased to about half its present size; the foot became swollen and painful. Walked about till three weeks ago, when she fancies she over-walked herself, and the wound has since rapidly increased. There is now a very offensive discharge, and the bone exposed; the foot also is enlarged. Says the veins of this leg used to swell very much.

On Admission.—Patient looks worn out and thin; left leg healthy, right leg much swollen; skin of a purplish hue; midway between knee and ankle there is a large ulcerating wound encircling the limb; the tissues have sloughed about three inches, exposing part of the shaft of tibia, tendons, etc.; the foot is enormously enlarged, red, feels firm.

August 7.—Cataplasma carbonis, tonics.

8th.—Chloroform. Mr. Bryant amputated through the knee-joint; anterior and posterior flaps, the latter being rather longer than usual; patella left *in situ*; torsion, and flaps retained by silk sutures, lint, short splint-strappings, and cotton-wool. On examination of the limb after amputation, the muscles and tendons were found to be sloughing. The pus burrowed in the course of the tendons, especially in the tibialis anticus, at insertion of which an abscess existed. The exposed part of tibia was about three inches long, and began two inches above the ankle. On vertical section of the tibia all appeared healthy except near the part exposed; the surface was necrosed and separating; the interior softer than elsewhere; the adjacent periosteum parchment-like and easily stripped.

November 16.—Convalescence has been delayed by several small abscesses, which formed about the stump. These were opened in due course, and she leaves the Hospital to-day in a very satisfactory condition.

ST. GEORGE'S HOSPITAL.

CASES UNDER THE CARE OF DR. JOHN W. OGLE.

Two Cases of Peculiar Rhythmical Muscular Movements in Adults (Chorea Oscillatoria).

The first was a man, George A., aged 42, a clerk in an office. As a young man he had been athletic, but was now thin and pale, and sluggish in appearance. It seemed that for ten months he had been the subject of what he called "shaking fits," which he could sometimes, though not always, arrest by an effort of will, and afterwards they often returned with greater force. They seldom came on when he was walking. It was found that these shaking fits consisted of violent nodding movements of the head backward and forward, accompanied at times by violent upward and downward jerking of the right arm, as if he were hammering. The attacks were very irregular in their approach.

At first the patient was purged and took valerian, and had shower-baths, which, he said, made his attacks worse. Sulphate of zinc was subsequently given. On one occasion he so frightened and menaced a neighbouring patient in one of his "fits," that the patient threatened he would knock him down. After that he never had any very decided attacks, and left the Hospital. This patient had a brother who became insane, as he said, apparently "from excess of vanity."

The second case was that of a woman, Eliza S., aged 27, who had been much subject to asthma. Four years ago she had a fright, owing to a fire in her neighbourhood. A few months after that she began to feel far from well, and in a few months more she became affected by "nodding" of the head, which would come on and last all day, but always ceased during sleep. During the three years that she has had the attacks, she supposes that the intervals of immunity have been only half the whole time of her illness. The longest interval has been six months. For sixteen weeks before admission she had been perpetually troubled with the nodding movements, and unable to stand quite upright.

The catamenia had always been regular, and no disease of any organ was traceable. Under the use of valerian and assa-fœtida, with occasional aperients, followed by shower-baths, the noddings ceased entirely, and she became able to stand and sit much more upright. Having been free for three weeks, the patient left the Hospital.

Delirium Tremens simulating Typhus Fever.

T. A., aged 35, a very intemperate man, mainly drinking spirits, had had two or three threatenings of delirium tremens on previous occasions, and had been for fourteen days before admission very "shaky," having restless nights and troubled with ugly dreams.

When admitted the tongue was very coated, the hands tremulous, and the bowels confined. On the second day after admission the tongue became very dry, the pulse high, and the skin very hot; a mottled eruption over the entire body was also noticed—not, however, at all that of enteric fever. Delirium came on worse at night, and a great tendency to coma, and this existed for two or three days. The temperature ranged from 101° to 103·4°. He was purged, and salines with ammonia administered for two days. On the second day port wine was given, and ice applied to the head, and on the third opium was given at bedtime; on the sixth day after admission the temperature was normal, the tongue having cleaned much and become moist.

Ulcerative Endocarditis—Diseased Kidneys.

The patient, aged 42, single, was a fish-salesman, and stated that he had been drunk at least twice a week since he was 18

years of age, always drinking beer, of which he required two gallons before he was intoxicated. He was admitted with anasarca and ascites, and much pain in the back and sides, and having great difficulty in retaining the urine long. He stated that he had spat blood occasionally. The urine was loaded with albumen. Physical examination showed enlargement of the heart and congestion of the lungs. He lingered for four or five days, having epistaxis on one occasion, and died somewhat suddenly. After death, in addition to œdema and congestion of the lungs, the heart was found to weigh eighteen ounces, and its muscular fibre was very fatty; the mitral and aortic valve-flaps were much thickened, and adherent to the segments of the latter was a thick layer of fibrine, which could be stripped off with ease, except at one part where it was dense and fibrous. Beneath this layer the endocardium forming the inner part of the valves was found to have been destroyed by ulcerative processes, and much calcareous deposit existed in the base of these valve-flaps. The liver was cirrhosed and fatty, and the spleen weighed twenty-four ounces. The kidneys were congested, and their tubules full of fatty epithelium.

Cases of Enteric Fever beginning with Pneumonic Symptoms.

The first case was that of a woman, aged 22—Sarah E.—who had been taken ill four days before admission, with sickness, pain in the back, and general *malaise*, and had had much tenderness in the right iliac fossa. On admission there was tenderness on pressing the abdomen, but no eruption on the skin existed. Auscultation and percussion showed indications of pneumonia at the base of both lungs, but especially the right one. There was, however, no expectoration. About five days after admission one characteristic "spot" was found on the side of the abdomen, but this disappeared in two days, and no others succeeded it. All this time the tongue was very dry and brown, and the teeth covered with sordes. For several days after admission the evacuations were only passed once a day, but were watery, and of a brown colour. The temperature was never higher than 103·2°. For several days the remission was in a morning, but afterwards the evening temperature was often lower than the morning. For some time the temperature kept up as high as 100° or 101° after the pulse had come down from 100 or 95 to 88 and 84; and when the temperature and pulse had got down to normal, and the patient was out of bed, there still existed much crepitation in the small bronchial tubes at the base of the lungs, especially the right one.

The second case was that of a boy, aged 12, who on admission had dulness at the base of the right lung, and moist sounds on inspiration. Two days after admission, typhoid spots were found on the abdomen, which was tender, the temperature being 104·4°, the pulse 108, and respiration 32 per minute. He went through a short course of fever, the lung symptoms gradually clearing up, and left the Hospital recovered. At first ammonia and salines with ipecacuanha were given, and warm poultices applied to the chest. Subsequently wine and mineral acids were given.

Professor Virchow.—This renowned German pathologist, it is said, intends to leave Berlin and go to London. He has always been a great democrat in politics, and has in consequence suffered a good deal of persecution on the part of the royal authorities.—*New York Medical Record*, December 15.

The Profession in Valparaiso.—M. Garnier publishes in the *Union Médicale*, Jan. 27, a caution to those young Practitioners who have received invitations from the Intendant of the province, and which he characterises as a snare. It seems that a municipal ordinance has been issued that all Practitioners should in turns hold themselves for a week to attend gratuitously all patients who wanted their services between midnight and 7 a.m. Refusal would entail fines or forfeiture of licence to practise. All the European Practitioners, who constitute the majority in the town, have, as a protest against this arbitrary decree, spontaneously ceased to practise; and, consequent upon this, the autocratic Intendant has, through the Chili envoys in Europe, transmitted invitations to Practitioners to repair to Valparaiso, taking care, however, not to mention the cause which has rendered their services needful. He offers a free passage and 1000 fr. during the first three months, on their engaging to remain there for four or six years. The offer is, in fact, illegal, as no one can practise in Chili without having undergone an examination conducted in the Spanish language. "In face of Professional independence succumbing to violence, no Practitioner worthy of the name would favour this by accepting conditions so derogatory to his liberty of action."

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Medical Times and Gazette.

SATURDAY, FEBRUARY 3, 1872.

SIR WILLIAM GULL'S ADDRESS TO THE CLINICAL SOCIETY.

There are in our Profession a goodly number to whom the name of Dr. Gull conveys only the idea of the fashionable West-end Practitioner—of one who, by some exceptional luck, has been able to secure a most enviable position; but there are others to whom the name conveys a totally different impression. These instinctively call to mind the hard-working clinical observer and the industrious pathologist, when as yet his future position could not even be dreamt of. In certain respects his election to the chair of the Clinical Society has been of service to Sir William Gull, for it has afforded him an opportunity of showing to those who little knew him what a shrewd Practitioner he is. His remarks have, as a rule, been short and pithy—epigrammatic and somewhat paradoxical; yet on that very account all the better fitted to stimulate the life of the Society, which sadly wanted some such stimulus, and which certainly of late has shown more signs of vitality than it was wont to do. The occasion of his re-election to the Presidential chair has, however, induced Sir William Gull to make a longer speech than usual, and certainly his remarks were both instructive and suggestive. What struck us as his main point was, that disease is no entity, to be exorcised from the body, but an abnormal fulfilment of the ordinary functions of the individual. Now, some people never do manage to carry on these functions in such a way as to give rise to no discomfort: in other words, to them ill-health is as natural as is sound health to the average of humanity. In any case, we are to study the individual, to ascertain as closely as possible what his ordinary condition is, and to keep that in mind alike in forming a diagnosis and a prognosis and in suggesting a line of treatment. It is the individual who is to be treated, not the malady.

And here it may be well to point out that Sir William Gull is not of the do-nothing school. Doubtless, he says, it would be a pleasant task enough to sit down and watch disease; but the work of the Physician is something very different. True, that in disease there is a tendency to a return to a state of equilibrium—that is, health; but it is the duty of the Physician to foster that tendency by every means in his power, and to watch that the patient, whilst getting well from the disease-process, does not die of something else.

As regards fevers, Sir William Gull's opinions are somewhat peculiar, and certainly they are well worthy of attention. In fever, he says, two sets of changes are going on—one set destructive, the other tending to health; but in this comparatively simple

process other manifestations than those of simple fever may make their appearance, such as pneumonia, bronchitis, and the like. These, says Sir William Gull, are part and parcel of the fever-process. Get the patient well of the fever, and these, also, will leave him. It is true that these complications may assume a severity such as to demand special attention and some special treatment, but in the main they are to be considered and dealt with as part of the fever.

Amusingly he drew attention to the existence of organs that in our bodies are superfluous, so far as we can make out, but which are perhaps more subject to disease on that account than are others. Tonsils, he thought, came in this category; and one might add a good many more. There is the coccyx, in females sometimes the seat of intense pain; the thymus, in adults often the origin of mediastinal cancer; persistent vitelline duct, as mentioned by the President himself, and many others which will suggest themselves to our readers. Let us hope, too, that the suggestion that such may be removed, perhaps with advantage, will not be lost sight of by Surgeons—some of whom have already taught us that people may live tolerably well without spleens, kidneys, and such-like organs.

It is not easy to give a good notion of such a speech as that to which we allude, for the manner often conveys as much as, or more than, the matter; but there were few persons who heard it, we venture to say, who were not in some degree benefited. Many, we know, would not agree with all Sir William said; but agreement is not always the best thing, especially in societies for discussion; and if some of the observations were of a nature to excite opposition, they were certainly such as would lead men to think. If the Clinical Society has reason to be satisfied with any one thing, that one thing is its succession of Presidents; and that the third in sequence should have attained the well-merited honour of a baronetcy must be pleasing to its members. For in the persons of their Presidents—pre-eminently working clinical teachers—their Profession has been honoured; not perhaps to the extent which might have been desired, yet, nevertheless, honoured as honours go. Finally, we do not know that we can do better than wish to Sir William Gull a long enjoyment of his well-earned dignity, and to the Clinical Society a long line of no less eminent Presidents.

INSENSIBILITY TO POSITION.

The statement put forth by the experts in the Watson and Edmunds cases, that the "insensibility to their position" displayed by the respective prisoners was a sign of moral insanity, or, at all events, of some form of insanity, is one that demands careful examination, and must be received with a considerable amount of caution. A reception of the plea might go far to excuse all sorts of crimes, and cause much laxity in the administration of justice. Great criminals whose sanity has never been doubted, except by those who take up with the craze that all crime is an evidence of insanity, have—we might almost say as a rule—been callous and apparently insensible to their position. Lancettre, who for seven years pursued a course of deliberate crime and murder, Palmer, Rush, Müller, Ruloff (the New York murderer), and others, may be cited as signal instances. Feuerbach, in his work on German criminals, gives numerous examples of great criminals being singularly unaffected by their position. A recent writer has stated that if we were to expunge from the history of great crimes all those in which the criminal had shown great insensibility to his or her position, we should strike out of the list almost all which inspire the greatest horror, and those of most of the poisoners, from Brinvilliers to Edmunds. We may remark, in passing, that prisoners appear, as a rule, to be exceedingly callous and indifferent to the crimes they have committed. An habitual course of crime must, as a natural consequence, deaden moral sensibility. Every day we see how men harden in wickedness and vice: a few false steps are first taken, perhaps not without some sharp twinges of conscience; the habit grows, and eventually a man or woman commits deeds, with no apparent compunction, that he or she would formerly have shrunk from with horror. It is a sad fact that people become as readily hardened in crime as in any other habit, and insensible to their position. Yet we should be loath to think that all these people who thus become callous and indifferent are insane. This earth would no longer be a safe habitation. Let humanitarians say what they will about the moral effects of punishment upon the criminal, and the reform to be effected by it, in a public point of view the deterrent effects of punishment are, in the interests of society at large, vastly more important. Criminals who are insensible to their position, if not clearly proved from other data to be insane, must be taught by their hard lot to recognise it; and would-be criminals must also be deterred from following their example. Many lunatics are known to be amenable to punishment; only when the person of unsound mind is so far dead to punishment that its infliction ceases to have a deterrent effect should it be entirely withheld. A morbid all-absorbing selfishness is just as good an evidence of insanity as that callousness which causes insensibility to position. All vicious propensities and evil tendencies are doubtless to be regarded as due to some defect—natural or acquired—of some part of the moral nature; but this deadness is not necessarily, or perhaps generally, innate; it is oftener acquired by slow degrees, and is, in its earlier stages at least, quite within the control of the individual. Dulness of sympathy and indifference to the opinion of others are generally signs of an increasing and culpable self-absorption. This is well seen in the history of great criminals. M. Ruloff, the Polish murderer, of New York, to whom we have already referred, was a signal instance of this. He organised a band of robbers and burglars with, as it appears, the sole object of procuring means for supporting himself whilst carrying on certain abstract studies. Those who are in the habit of frequenting our courts of justice must have been struck with the extreme indifference and insensibility to their situation displayed by criminals as a rule. We cannot be surprised, therefore, if lawyers look at this matter in a different light from Physicians, and refuse to acknowledge, in this indifference, any proof of insanity. Much as we wish to see an alteration in the law relating to insanity, and to have a new definition of this introduced more in accordance with Medical science, we are averse from seeing the safeguards of society relaxed, and the plea of insensibility to position accepted as a proof of unsoundness of mind.

THE WEEK.

TOPICS OF THE DAY.

It is understood that the meeting of the General Medical Council will take place about March 27. The chief business which will occupy the Council will, no doubt, be the consideration of such schemes for Conjoint Boards as may be submitted to it. We have already indicated our opinion as to the duty of the Council in reference to the scheme which has been agreed on by the Royal Colleges of Physicians and Surgeons in England. We think that they cannot accept it in its present form without laying themselves open to the serious charge of permitting the formation of a new body of Medical Practitioners, who will be prevented obtaining a Surgical diploma from any Examining Body in England without passing the examination of, and paying a large fee to, the Royal College of Physicians. To say nothing of this being in direct contravention of all the General Medical Council has said and done to insure the possession of a double qualification in Medicine and Surgery by all registered Practitioners, we may be certain that so monstrous a piece of injustice will never be permitted by the Legislature or by public opinion.

With regard to the scheme for England of the Royal Colleges of Physicians and Surgeons, we notice that it has been submitted to the Hebdomadal Council of Oxford, who have resolved—"That it is expedient to make such alteration in the Medical Statutes as may be necessary for the purpose of adopting the scheme in the University;" and it will be brought before Congregation on February 6.

The Royal College of Surgeons of Edinburgh has circulated amongst its Fellows a series of resolutions adopted at a meeting of the College held on January 23, 1872. It appears these resolutions were founded upon the report of a Conference of Delegates from the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, which was held at Glasgow on January 6, 1872, at which the Remit from the General Medical Council, with reference to the establishment of a Conjoint Examining Board, was under adjourned discussion. The following are the resolutions adopted by the Edinburgh College (the italics are ours):—

"1. That an examination by a Conjoint Board *for the purpose of testing clinically the knowledge of Medicine and Surgery, and the ability to practise them*, possessed by candidates for registration, should be established in each division of the kingdom, and that no one should be admitted on the Register who has not passed the examination of this Board.

"2. *That the examinations, double or single, of the Universities and Corporations be conducted as at present, with the exception of the examination in Clinical Medicine and Clinical Surgery, which may be superseded by the examination of the Conjoint Board.* That no candidate be taken on trial by the Conjoint Board who does not produce a certificate of having passed in Medicine and Surgery before Bodies legally entitled to grant licences to practise these departments. That, on the other hand, the Universities and Corporations bind themselves not to grant a degree or diploma to anyone who has not passed the examination of the Conjoint Board.

"3. That certificates of having passed the examinations of the Licensing Bodies in Schedule (A) to the Medical Act shall entitle the holder to present himself for examination before the Conjoint Board of any division of the kingdom; but provided always that in the case of a candidate being remitted by any one of the Conjoint Boards, he shall not be allowed again to appear for examination before any of the Conjoined Boards for a period of at least six months.

"4. That the Universities and other Corporations shall elect or appoint Examiners for the Conjoint Board in the same manner as their Examiners are at present elected or appointed.

"5. That the principles on which the Practical Examinations by the Conjoint Board are to be conducted, the periods at which they shall take place, and other general management, shall be arranged by a Committee of the General Medical Council, composed of English, Scotch, and Irish Members, and the Regulations afterwards approved of by the Council, so as to secure uniformity in examination in the three divisions of the United Kingdom."

We will not now stay to discuss at length a scheme, which, whatever be its merits—and we do not deny that it may have merits—is certainly not a scheme for a Conjoint Board in the sense in which the term has been hitherto understood. It does not appear on the face of the document circulated by the Edinburgh Royal College of Surgeons that the Scottish Universities have been taken into the councils of the three Scottish Corporations, or have given in their adhesion to any plan of combined action. If this be so, the scheme, as one for a Conjoint Examining Board, will certainly prove a failure. But the point on which we would insist is that such a plan would be practically useless. A Conjoint Examining Board should at least test the candidate in his knowledge of Medicine and Surgery as sciences, and not merely as arts, if it is to be of any real value. Moreover, a Conjoint Examining Board, for clinical examinations only, is merely the addition of another to the far too numerous examinations afflicting the Medical students of this country. Altogether, the Scotch College scheme is thoroughly worthy that canny nation. In the first place, it is evident that the Scotch Colleges do not in the least approve of the general principle of a Conjoint Board in its full sense. In order, however, to avoid a rupture with the General Medical Council, they are ready to establish one which is to do as little as possible—merely to test the student's knowledge of clinical agenda—one which will leave each of the three Corporations to go on examining exactly as before. Of course the General Medical Council cannot accept this scheme, if it be determined to accept that offered by the English Colleges and Universities. To do so would be to render confusion worse confounded. The admission to the Profession in the two kingdoms, instead of being more uniform, would be placed on a perfectly different basis.

Dr. Lyon Playfair, M.P., on Wednesday last gave an address in the Queen-street Hall, Edinburgh, on the subject of "Teaching Universities and Examining Boards," which contained truths specially necessary and wholesome for the present time. Dr. Lyon Playfair has had the courage to attack the present Chancellor of the Exchequer upon his own ground, and to tell the truth about the University of London. Mr. Lowe, in a speech recently delivered at Halifax, shadowed out a policy for Ireland, and eventually for Scotland, which would convert the teaching and examining Universities into a single Examining Board for each kingdom, on the model of the University of London. Of course the Universities of England would follow in time. Oxford and Cambridge and Durham would be merged in one Examining Board already existing in the metropolis. Dr. Lyon Playfair shows in an able historical sketch that the French Revolution and Napoleon Buonaparte, "with the power of a military despot and with the professional instincts of a drill-sergeant," did the same for France, with the result on the science and intellect of the nation which all Europe has just witnessed. But Dr. Playfair goes farther. He shows that in no degree does the University of London justify Mr. Lowe's laudations of it. It is not a University in the European sense of the term—a teaching as well as qualifying body;—it is "far more related to the Examining Boards of China than to any European model."

"The London University prescribes no curriculum, and has no teaching functions, so it depends upon degrees as its only educational power. It is a University of modern foundation, and hence it would be unfair to test its achievements in its early years; I therefore leave the period from 1838 to 1860 without a close examination, and will chiefly rely on the ten subsequent years. The following points will be considered as fair tests of work:—

"1. Is the educational influence of the University of London extending, as shown by an increase in the number of its degrees?

"2. Is the proportion of degrees to matriculated students increasing or diminishing?

"3. Does the number of its degrees stand favourably with that of other Universities in the United Kingdom?

"It is only by distinct answers to such questions as these that we can find out whether a mere Examining University, dissociated from teaching functions, is capable of exerting an important, though indirect, influence on the higher education of a kingdom. It is usual to look at the degrees of Arts—representing, as they do, general culture in a university—as an index of its effect on higher education. I take the three last quinquennial periods of the London University in illustration. In the five years ending 1860, there is an annual average of 63 Bachelors of Arts; in the five years ending 1865, the average is 60; and in the last period ending 1870, the average is 65. About ten of these go up annually to the higher degree of M.A. This, then, represents the outcome and want of progression of the London University on the general higher culture of the United Kingdom and of the British colonies, including India; for the charter of 1849 added these to its province. It is a marked feature in the University of London, that its influence on all forms of higher education now appears to be practically stationary. There is no substantial increase in any one class of its degrees, either in Arts, in Science, in Law, or in Medicine.(a) This is the more remarkable, when we recollect the large increase in its matriculated students, who have

(a) "In the two quinquennial periods ending 1865 and 1870, the number of graduates, including higher degrees, was respectively—for Arts, 69 and 75; for Science, 12 and 12; for Law, 13 and 10; for Medicine, 32 and 33."

risen from 265 in 1861 to 420 in 1870. If the influence of the University of London on higher education be progressive, a larger crop of students should, as in all healthy Universities, produce a larger crop of degrees; but this is not the case with that Examining Board, for its old and new degrees now remain stationary, though its enrolled students increase. From 1838 to 1862, four matriculated students produced a new graduate in Arts; for the last five years nearly six students are required for this purpose. Nor can it be said that increased severity of the examination explains the anomaly, because, during that five years (the only period comparable among its years on account of the institution of new degrees), the number of candidates is as stationary as that of its degrees.(b) If the standard of degrees be increased, so must the corresponding standard of matriculation; for whereas six candidates previously to 1862 produced five matriculated students, it now requires ten to pass the same number; yet with these presumably more highly qualified students augmenting in number the degrees are stagnant. The fact that a smaller proportion of candidates than formerly passes the matriculation examination has another important signification. If a mere Examining Board suffice to direct the course of superior education in a country, the London University has now had time enough to exercise its influence on the schools which attach themselves to it; yet we find that they have not responded to the demands for higher qualifications, because, though they have sent numerous candidates, these are in a worse state of preparation than formerly, as indicated by their increased proportion of failures. Thus, though matriculation candidates are more numerous, the candidates for degrees do not augment, nor do the graduates substantially increase in number. But one thing does increase in a notable degree, and that is, the ages of the graduates. If we take the three decennial periods of the operation of the University, this will be apparent. In the first period, the average age of Art graduates was less than 22; in the second, it was 22½; and in the third, it was close on 25 years. At this rate of increase, the time may come when the University of London will have to rule—as the Emperor of China has done in regard to its great Chinese prototype—that if a candidate regularly attend all examinations, though without success till he is 80 years of age, he then becomes a graduate *de jure*. The increase of age is not a good sign. It shows that, instead of being for the many, the ambition of the University of London is to become a fancy and select University for the few. This is the reason why the influence of that University, apart from its matriculation, is so singularly small in comparison with the area which it professes to cover. For the last ten years the average number of all its graduates, scholastic, scientific, legal, and Medical, is 130, while the Arts degrees alone in the two Irish Universities amount to 338; and yet the proposal has been made to reconstruct them on the type of the University of London, which would be to replace an excellent productive machine by a singularly unproductive one—a strange phenomenon in the history of human progress!"

There is no doubt that the conviction is gaining ground that the University of London, however useful it may be for the few who can bear the cramming process necessary to pass it, is not doing its duty to the many. It is not conferring on the people generally the benefits which were expected from it. It contributes little to the higher education of the country, and its influence is most limited and restricted. We are not disposed to undervalue it as a Medical Examining Board, but we maintain that it would be far more useful did it institute a thoroughly fair series of examinations, requiring only ordinary capacity and fair work for ordinary degrees, and reserve for its honour-papers questions which are simply gauges of the candidate's power of cramming.

A tract, violently libellous as regards the Profession, and unctuously fanatical—"On the Duty of Medical Men in relation to the Temperance Movement"—has been recently widely circulated amongst the Profession, together with a copy of the celebrated Medical Declaration on Alcohol, and the list of signataries thereto. The author of the tract is a Dr. A. H. H. M'Murtry, of Belfast. Dr. M'Murtry assumes "that alcohol is a poison—always hurtful as a beverage, always useless as an article of diet, and always unnecessary, at the very least, as a medicine." He continues—"I have been assuming that the Medical Profession knows all this, but has allowed the people to remain in ignorance of it, to their great injury; and that, therefore, the Medical Profession is responsible for the consequences of this ignorance. The objection is that Medical men do not know all this, but positively deny some of it. Now, admitting, for the sake of argument, that they do not know what I supposed they knew, I reply that they *might* know it if they would, and that they are as responsible for the knowledge they might and should possess as for that which they already do possess. When a man's ignorance is inexcusable, the results of it are also inexcusable," etc. We wonder how the President and Senior Censor of the Royal College of Physicians, with the other signataries of the Medical Declaration, like the company in which they find themselves!

We have lately received an American paper containing an account of the cross-examination of Dr. E. Warren in the trial of Miss Wharton, who was accused of poisoning General Ketchum. The Doctor supported the theory of the defence, which was that the General had died from cerebro-spinal meningitis. The following sharp retort was made by Dr. Warren in his cross-examination by Attorney-General Syester:

"Attorney-General: A Doctor ought to be able to give an opinion of a disease without making mistakes.

"Dr. Warren: They are as capable as a lawyer.

"Attorney-General: Doctor's mistakes are buried six feet under the ground. A lawyer's are not.

"Dr. Warren: But they are sometimes hung as many feet above ground."

ILLEGAL QUALIFICATIONS—COUNTER PRACTICE—WHAT IS PRESCRIBING?

THE case of Andrews *v.* Davies, which our readers will recollect was adjourned to enable the plaintiff to give particulars of claim, and otherwise amend his bill, came before the County Court at Shrewsbury the week before last. As the plaintiff had only a foreign diploma, the judge decided, at the last sitting of the Court, that he was not entitled to sue as a Doctor, but gave him the opportunity of an adjournment to sue as a chemist and druggist for medicines supplied. This the plaintiff had done, and the case again came before the Court. Mr. Morris appeared for the plaintiff, and Mr. Chandler for the defendant. It will be remembered that the plaintiff was the defendant in a prosecution at the police-court for assuming the title of M.D., and was fined £20. Mr. Chandler said: We are freed from the payment of the bill by the Medical Act. Mr. Andrews, the plaintiff, was then examined. He said: This bill is for medicines supplied on the dates stated in the account. The defendant was then ill, and these medicines were supplied to him. The charges are the usual trade charges. Mr. Chandler: If I read this bill rightly, it contains something else besides charges for medicines. There are some portions of it in which you make no charge. The plaintiff replied in the affirmative. Mr. Chandler: Where is your diploma? Mr. Morris, the plaintiff's attorney, objected to this question. The Judge here said: How are you entitled to ask for his diploma? Here is a bill as a chemist and druggist. He claims, not as "Thomas Andrews, M.D.," but as "Thomas Andrews, chemist and druggist," and he charges for no more than what a chemist and druggist would be entitled to charge. Although there are some other things in the bill, he puts no charge to them. Does the mere fact that he entered these things in the bill, and that he entered some other service rendered to the defendant, although he has not charged for more than supplying the medicines—for he does not make any charge for service—make it a Medical man's bill, or entitle you to ask for his diploma? Mr. Chandler: No, it does not; but I will postpone asking for

(b) "From 1866 to 1870 inclusive, the candidates at all degree examinations are 615, 610, 649, 620, 631; while the degrees are 158, 131, 127, 128, 131. This period of five years is large in its Arts candidates as compared with the preceding five years—200 as against 158—yet the degrees are only 65 as against 60."

the diploma. To the plaintiff: When did you prescribe these medicines? The plaintiff: At the time. Mr. Chandler: You did prescribe them then? When did you compound them? Plaintiff: Perhaps one day, and he called for them the next, when the medicine was ready. He generally called in and said, "I shall want another bottle of medicine," and it was got ready for him. Mr. Chandler: You prescribed them one day and compounded them another? Plaintiff: Yes. The Judge: What I take to be the law is this: A chemist and druggist may prepare and dispense medicines, but he cannot give advice. I infer that although they may make up and dispense medicines they cannot prescribe medicines. Prescribing is not dispensing. Mr. Chandler: He has admitted that he prescribed them the day before he dispensed them. The Judge, after referring to the Act, said: I imagined the moment he said he had prescribed this medicine he was out of court. Mr. Morris: But I will show that all these medicines were sold in the ordinary way. In point of fact, these charges are those of a chemist and druggist. The Judge: Whatever these charges are, he has put himself on the footing of a Medical man. When a chemist takes upon himself to prescribe, he involves the province of a Medical Practitioner, and the plaintiff has said that he prescribed them. Mr. Morris: But a man may come into a shop and order a bottle of sarsaparilla. The Judge: That may be, but if the Doctor or would-be Doctor prescribes it, it is fatal to his recovering for it. There is a difference between supplying it and prescribing it. Mr. Morris: Then do I understand your Honour that it is no use going on with the case? The Judge: Not the least. Mr. Morris: Although the plaintiff has been in another court he thinks he has a right to sue in this court as a chemist and druggist for drugs supplied in the ordinary way of his trade as a chemist. The Judge: He has vitiated all claim to what he has supplied in consequence of his having prescribed them. Judgment for the defendant, with costs. Mr. Chandler: I did not ask for any costs before, and I do not ask for them now.

From the foregoing very important proceedings it will be seen that several points of great interest in reference to Medical law and the Medical Act were discussed and determined. The decision of the judge in regard to counter practice, or "prescribing over the counter," is of the last moment in reference to this kind of infringement of the Medical Act. As no "case" was asked for by the plaintiff's attorney, the decision—for the time, at least—must be regarded as law, but whether it would be so interpreted by the higher courts is a matter of doubt. We fear that the judges of the superior courts would regard the decision as too comprehensive and too favourable to the Medical Profession. However this may be, it is one consistent with common sense and common justice.

QUININE.

Our knowledge of the physiological and therapeutical actions of this invaluable alkaloid have been recently much extended by the labours of Binz, Ranke, Kerner, Zuntz, Scharrenbroich, and Schulte. We propose to lay before our readers a *résumé* of the chief results obtained.

Binz finds that quinine has the power of arresting the processes of putrefaction and fermentation in a high degree, and that it is an active poison for all low organisms, animal and vegetable. According to Cohnheim's views, pus, being mainly a collection of white blood-globules, which have passed through the walls of the vessels—further, quinine having the power of arresting the motions of the white corpuscles, and hence preventing their exit from the vessels—the alkaloid arrests, or at all events diminishes, the formation of pus during the course of inflammation. Moreover, it destroys the ozonising power of certain substances; and as the red corpuscles have this power, quinine in the blood probably diminishes oxidation of tissue, and lessens the production of heat. Ranke and Kerner, indeed, have found that quinine in large doses diminishes tissue changes, as is shown by the smaller quantities of urea and uric acid excreted; and there are many observations to show that in fevers it produces a decrement in temperature. Ranke and Kerner's experiments do not show, however, how far the lessening of tissue-waste is due to the direct action of quinine on oxidation, and how far to the indirect action of the alkaloid through the nervous system. Two methods have been employed for ascertaining the direct influence of quinine on oxidation. Harley added quinine to the blood, and found that this, when so treated, took up less oxygen and gave off less carbonic acid than blood which had not been so treated. This method is inconvenient of application, and liable to error. Zuntz employed the changes in the alkalinity of the blood for arriving at the same results. Schulte has extended these researches. If fresh blood be drawn, a development of acid begins in it, and continues, at first rapidly, then more slowly, till putrefaction sets in. Of course this acidification depends on oxidations; and the diminished alkalinity of the blood, thereby produced, furnishes a test of the rapidity with which oxidation proceeds. Schulte has confirmed the observation first made by Zuntz and Scharrenbroich, that quinine and berberine lessen the production of acid. Harley's observation is thus confirmed. Cinchonine produces similar results to quinine, though in a very inferior degree. Picrate of sodium is nearly as powerful as quinine. Zuntz found, as Ranke and Kerner had previously done, that quinine in ten-grain doses lessens the daily excretion of urea by one-third or more. Unruh has found the same to occur when quinine is administered in fevers; but his observations are open to objection. Binz's experiments are curious, and show that when putrefying liquids are injected into the circulation the temperature of the body rises; but if the fluids be previously mixed with quinine, whereby the putrefactive processes are arrested or destroyed, the rise in temperature is either entirely arrested or considerably diminished.

We think that these experiments have an important bearing on practice, and that they are in accordance with the teachings of clinical observation. It has been too much the fashion to assume that the therapeutical actions of quinine are entirely different from its effects when administered in health. We apprehend that the true method of commencing the study of the actions of medicines is first to ascertain their effects in health; then to observe their results in disease.

Dr. Crace Calvert has also recently announced the discovery of the power of quinine in preventing the development of fungi. He appears, however, to have been unaware of Binz's previous publication of the fact.

TESTIMONIAL TO DR. M'KECHNIE.

A large number of the most influential inhabitants of Paisley assembled in the County Hall, last week, to present a testimonial to Dr. William McKechnie, who is leaving Paisley, to reside in Edinburgh. Provost Murray, who presided, made the presentation. The testimonial included a vase, with tea, coffee, and fruit service. The inscription on the vase was as follows:—"Presented to William McKechnie, Esquire, by a few friends, on the occasion of his leaving Paisley, in appreciation of his Professional services. January, 1872."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A special meeting of the Council and others will be held at the Medical Club, 9, Spring-gardens, W.C., on Monday, February 5, at 7 p.m. precisely, for the purpose of conferring with Mr. Corrance, M.P., as to the course to be taken by that gentleman, in the ensuing session of Parliament, in furtherance of the objects of the Association. Sir Dominic Corrigan, Bart., M.P., and Mr. McCullagh Torrens, M.P., have been invited to attend.

ARMY MEDICAL DEPARTMENT.

We understand that several changes in the composition of the staff in the office of the Director-General of the Army Medical Department are impending, or actually in progress. The departure of Deputy Inspectors-General Massy and Crawford for India is already known to our readers. Dr. Rutherford, C.B. has arrived to succeed Dr. Crawford as head of the Medical branch. The Secretary of State has, we believe, decided that henceforth all appointments in the London office, with the exception of that of the Director-General, are to be held for five years only; they may be renewed on public grounds at the expiration of that time, but only under the authority of the Secretary of State himself. It will be remembered that during last session Mr. Cardwell stated, in reply to questions in the House of Commons, that these appointments were special, and not liable to the five years rule of military staff officers. In these days of reform, however, we have all of us ceased to experience the sensation of surprise—having, like "Mark Tapley," sold out our stock-in-trade of that article. The chief argument in favour of special appointments in the head-quarters office is, that men accustomed to the work attain a special aptitude in it, and are more likely to carry it on without a hitch. It must at the same time be admitted that this aptitude is acquired at the expense of a certain amount of Professional knowledge, which can only be maintained by practice. Another point is, that to a man with a family returning from foreign service, a five-years' berth in London is a very desirable thing, and this is an advantage which will be more generally diffused throughout the Service by the new arrangement. The first Medical officer to be affected by the recent change will, we are informed, be Staff-Surgeon Kidd, assistant in the statistical branch, who leaves the office on the expiration of his term of office in March next. Rumour has it in Aldershot that a Deputy Inspector-General of Hospitals is likely soon to be appointed to assist the Inspector-General in the Medical superintendence of the very large force in that camp. There can be no doubt that the thorough supervision in all Professional matters of more than thirteen thousand men, with the proportionate number of officers, women, and children, is more than one man can continuously carry on; and we shall be glad to learn that the report as to a projected increase of the administrative staff has been well founded. From Netley we learn that the Medical staff gave a farewell dinner, at which Sir Galbraith Logan was present, on the 31st ult., to Inspector-General Dr. Beatson, C.B., and Deputy Inspector-General Dr. Crawford, previous to their embarkation for India.

NITRATES IN POTABLE WATER.

Dr. A. Wagner (*Zeitschr. für Biologie*, vol. vii., p. 316) points out a fallacy in the means hitherto employed for the estimation of nitric acid in potable waters. When a sample of water containing nitrates is subjected to chemical examination without first destroying the organic matter present, the nitric acid is destroyed in part; and thus the amount of nitric acid found does not truly represent the acid present in the water. He proposes a method which obviates this defect, based upon an observation of Schulze's, that organic substances, when boiled with permanganate of potash in alkaline solution, are converted into oxalates. On cooling the solution and acidulating it, the oxalates are entirely converted into carbonic acid, and thus all organic matter is removed from the solution. The nitric acid can then be estimated by any of the ordinary methods. Considering that nitric acid in drinking-water is in great part, no doubt, derived from the oxidation of organic matter, and the uncertainty hitherto attending its estimation in such water, a new and simple method which obviates this difficulty is a boon to the analytical chemist and Physician.

ADDRESS AND PRESENTATION TO DR. WILLIAM STOKES, JUNIOR.

A representative deputation of the students, past and present, of the Richmond Surgical Hospital and the Carmichael School of Medicine, waited on Surgeon Stokes at his residence, Clare-street, Dublin, on the afternoon of Thursday week, the 25th ultimo, for the purpose of reading an address, and of presenting that gentleman with a valuable silver chalice. A numerous party of the heads of the Profession, including the Presidents of the Colleges of Physicians and of Surgeons, were also present on the interesting occasion. The address runs as follows:—

"Dear Sir,—We, the students, past and present, of the Richmond Hospital and Carmichael School of Medicine, on account of the events which have lately occurred, consider this a fit and opportune occasion for presenting you with this address, as an earnest mark of the high esteem which your brilliant ability as a Surgeon has inspired us with, and also to show how fully we appreciate your uniform zeal for our Professional advancement, and your kindness and affability towards us individually. There are few on whom the arduous task of a Profession has devolved, who have been so eminently successful as you, who, by a happy combination of theoretical research and practical skill have made your lectures such as have been seldom equalled and never surpassed. We deem ourselves fortunate in belonging to an Hospital which counts amongst its Professors one whose name has been so long and intimately associated with the advancement of the science and Surgery of this country. Reflecting, as you do, the talents, ability, and genius of your illustrious father, we hope you may long continue our model and guide."

[Here follow the signatures of more than 100 students.]

The chalice bore an inscription which ran thus:—"Presented to William Stokes, by the students, past and present, of the Richmond Hospital and Carmichael School of Medicine, January 25, 1872." We heartily congratulate Dr. Stokes on this pleasing episode, which has so happily occurred after the anxious and harassing period he has passed through, and which will go far to mitigate the recollection of it. This demonstration of esteem and goodwill reflects credit alike on the earnest, painstaking clinical teacher, and on his intelligent and generous class.

SMALL-POX JOTTINGS.

Thirty-eight persons were attacked with small-pox in Berlin from the 20th to the 22nd ult., ten of which cases had a fatal result.——Ten new cases of small-pox and two deaths were reported to the Kensington Board of Guardians as having occurred last week. The disease was greatly on the increase.——Four cases of small-pox, one of which ended fatally, were reported to the St. Martin's-in-the-Fields Vestry at their last meeting.——At Mile-end Old Town four deaths occurred from small-pox in the past week.——In Wakefield House of Correction several cases of small-pox and one death are reported.——The Fulham Medical Officer reports the successful vaccination of fifty-four persons during the past week.——Small-pox cases are increasing in number and virulence in Birmingham, and it has been decided by the Board of Guardians to erect two additional convalescent wards for the accommodation of small-pox patients. On the 19th ult. there were in the Infirmary seventy-two patients; admitted since, twenty-five; died, five; discharged cured, nine; remaining, eighty-three. Of the remaining cases, there were—convalescent, fifty-six; severe confluent, thirteen; distinct and modified small-pox, fourteen cases.——Forty-three cases of small-pox are reported in the Stourbridge Union, and were principally above the pauper class. At present eight persons had recovered, and there had been only one case at the workhouse.——The Sheffield School Board declined to accede to the application of a deputation of anti-vaccinators last week, to rescind a resolution authorising the school managers to examine the arms of the children for the purpose of ascertaining whether they have been vaccinated. The Board insists that all the children shall have been vaccinated.

——John Charles Homes, of East-street, Manchester-square, was ordered by Mr. Mansfield, last week, to pay 10s. for Professional attendance, 2s. for costs, and 1s. nominal penalty, for refusing to allow lymph to be taken from his child, who had been successfully vaccinated by Dr. Summer, the Public Vaccinator for the Marylebone district.——Ten deaths from small-pox occurred in the Hackney district during the past fortnight. ——In the Poplar district, last week, four deaths were registered from the disease, and twelve new cases had been brought under notice. In the same period fifty-five persons were vaccinated at the public stations. There were seventeen small-pox patients under treatment in the North-street Infirmary.—— The deaths from small-pox in London, last week, were ninety. In the past six weeks the deaths from the disease in the metropolis have been all but stationary, ranging only between ninety and ninety-seven.——Dr. Aldis, St. George's, Hanover-square, "returned only one case of a woman, aged 22, vaccinated—an unfortunate, who lived with other women of the same class, and at first consented to go to the Hospital, then declined to do so, but at length, after much persuasion and delay, was removed there from the out-wards. Had she persisted in remaining, what a source of infection would have been prolonged!"

DAMAGES FOR SMALL-POX.

Although, according to the case of Pritchard *v.* Huntington, recently decided in favour of the plaintiff by Mr. Serjeant Wheeler (the judge of the Liverpool County Court), and referred to in last week's number of this journal, a landlord's liability for knowingly letting any house, room, etc., in which any person suffering from any dangerous infectious disorder has been, without having such house, etc., and all articles therein liable to retain infection, disinfected, under the Public Health Act, is not confined to the penalty for the public offence under the statute, but extends to the personal remedy for the private wrong at the suit of the party injured, it is much to be regretted that the law is still undecided as to the converse of the case—*i.e.*, the liability of persons, who are just recovering from an infectious disorder, coming into lodgings, and by so doing communicating the disease to others. Such a case was under discussion before the Court of Queen's Bench the week before last—in re Best *v.* Stap; but the Court came to no decision, and the parties were advised to go to trial, and ascertain the actual facts. It was necessary that a definite state of facts should be laid before the Court, because, if it should turn out that the taking of small-pox by the plaintiff's children, which was the injury complained of, was partly to be accounted for by their not having been vaccinated, it would tend to a further complication of the question. It is to be hoped that the matter will not be allowed to drop without a decision. The judgment of Mr. Serjeant Wheeler in the case of Pritchard *v.* Huntington is well deserving of perusal. It is as follows:—

"It is scarcely possible to exaggerate the importance of this case; for, if the contention before me be well founded, the position of a tenant in great towns like Liverpool and in crowded districts is one of vast peril and difficulty. But I do not concur in the view which the defendants, through their attorney, suggest as to the law of the matter. I am satisfied that a right of action does exist, and it is most righteous that it should. It is needless to travel beyond the statute into the question of common-law liability, though upon that point I should be prepared to state my opinion if it were necessary, because I think that the imposition by statute of a penalty for the doing of a particular act amounts to a statutable prohibition of that act, and makes it illegal. And if, by reason of such illegal act, injury arises to an individual, I think that the party injured has his personal remedy by action for the private wrong, and that without reference to the statutable penalty, which is intended to meet the public offence. I need only refer to the well-known case of Couch *v.* Steel, and to the more recent case of Atkinson *v.* Newcastle and Gateshead Waterworks Company. The legal objections failing, there remains only the question whether the plaintiff has proved his case, and the conclusion at which I have arrived is that he has. He is, therefore, entitled to my verdict for the full amount which he claims, with costs."

DR. JENNER.

A very interesting memento of the discoverer of vaccination has recently been presented to the Royal College of Physicians by Sir John William Fisher. It consists of a cow's horn, beautifully polished, presented to Sir J. W. Fisher, in the year 1813, by Dr. Jenner, and polished by himself. The gift was made in grateful acknowledgment of services rendered to Jenner's sick children by Mr. Fisher, then a Medical assistant in Soho. The horn is now mounted in silver, and bears an appropriate inscription stating the circumstances under which it was presented to the College. Dr. Burrows, the President, in asking the acceptance of the horn, stated that it was probable—though there was no record of the fact—that the horn had been taken from one of Dr. Jenner's favourite cows on which he made his experiments on vaccination.

THE CHELMSFORD DISPENSARY.

We publish in another column a letter from Dr. Nicholls, one of the late Surgeons to the Chelmsford Dispensary. That Dr. Nicholls has just grounds of complaint, may be gathered from the following facts:—It appears that the Dispensary for some years past has had two Medical Officers attached to it—Dr. Nicholls and Mr. Gilson. It has been customary annually to vote £20 each to these officers. A few months since Mr. Gilson resigned, and after some delay the Committee took advantage of the circumstance to issue a circular to the various Medical Practitioners of the town, asking them to give advice to the Dispensary patients gratuitously. The Profession very properly refused to listen to this appeal, with, unfortunately, one exception. This exception was in the person of Mr. Carter, who, at a meeting of the Committee on Tuesday last, was appointed to fill the vacancy, notices of motion being at the same time given to discontinue the allowance now made to Dr. Nicholls, and this without any reason being assigned for the unjust act. Now, we consider the conduct of the Committee to be most shabby and contemptible. We cannot exonerate Mr. Carter entirely. He is the one "faithless amid the faithful found," and, in acting in antagonism to his brethren in the town, has shown a want of the *esprit de corps* deeply to be regretted. We hope Dr. Nicholls will retire, and leave his new colleague "alone in his glory."

"DOCTOR MOORE, OF CANTERBURY."

We suspect that the Attorney-General is hardly so clear in his facts as to the bleeding of R. C. Tichborne as he has been in most other parts of his very long and able address. He states that the operator on this occasion was "a Doctor Moore, of Canterbury," who is since dead. We believe Assistant-Surgeon Stuart Moore, of the 6th Dragoon Guards, to have been the Dr. Moore referred to—the same who was killed at the battle of Hindun Bridge, near Delhi, at an early stage of the Indian Mutiny in 1857.

LONDON WATER-SUPPLY.

Dr. Frankland, in his report upon the water supplied to the metropolis during the present month, calls attention to facts which "illustrate the utter unsuitability for domestic purposes of water derived from rivers flowing through highly manured lands, and receiving the sewage of a large population." The Thames has been in a state of flood during the whole of the month, and the water has consequently been in a "filthy condition." The system of filtering adopted by the water companies appears to have been entirely ineffectual in rendering this water fit for consumption. The West Middlesex was the only Company which was delivering efficiently filtered water. The

water delivered by the New River, East London, and Kent Companies, which principally draw their supplies from springs and deep chalk-wells, was, on the other hand, bright and transparent. The moral is, that every house ought to be provided with a fixed filter, through which all water used for drinking should pass.

FROM ABROAD.—THROMBOSIS OF THE INTERNAL CAROTID—CRYSTALLISED DIGITALINE—EPIDEMIC JAUNDICE—CASE OF UNIVERSAL TATTOOING.

At the Académie de Médecine, M. Verneuil related, at its meeting on January 16, a highly interesting and rare case of thrombosis of the internal carotid produced by external injury, and giving rise to anomalous symptoms and a faulty diagnosis. A man, 45 years of age, was brought on December 14 to the Lariboisière, having been a short time before extricated from beneath a railway waggon which had been overturned. On his admission he was the subject of excessive agitation, which prevented any account of his injury to be obtained from him. Gradually this disappeared, so that he was able to answer questions in the most clear manner. On examination, slight contusions on the vertex and elsewhere were found; but nothing could be discovered capable of explaining the signs of violent pain, the cries, disordered movements, and the great disturbance of respiration, of calorification, and of the circulation which he had exhibited on admission. These were regarded, therefore, as the effects of emotion; but in the evening he was seized with violent delirium, so as to require restraint, and this was followed in a few hours by profound coma and complete hemiplegia of the right ride. His treatment, on account of his depressed condition, was merely expectant, and towards the fifth day he died. It was supposed that there had been laceration of a cerebral artery of small calibre, followed by slow effusion of blood; but at the autopsy not the slightest trace of effusion of blood or other lesion was at first discoverable. It was not until the base of the skull was examined that the true nature of the case was discovered. The internal carotid on its entrance into the cranial cavity was found to be filled with a thrombosis, which extended to all the ramifications of the middle cerebral artery, the carotid and Sylvian arteries seeming exactly as if they had been injected with suet. The anterior extremity of the left temporal lobe of the cerebrum was the seat of a widely extended ramollissement, fully explaining the hemiplegia observed. On following the track of the carotid downwards, it was found to be distended by a reddish, friable coagulum, until within a finger's breadth of the common carotid. From the base of the cranium to this point the artery was increased by at least one-third in its volume, suddenly diminishing in size there. On incising it at this spot, it was found that the internal tunies had been cleanly cut across, and, pushed back by the current of the blood, they had given rise to valvular folds, the free edge of which was turned towards the axis of the vessel. At this point the coagulated blood completely obliterated the calibre of the artery, the occlusion extending from below upwards to all the cervical and intracranial portions of the internal carotid, and also occupying the entire extent of the middle cerebral artery.

M. Verneuil suggests that it is probable that at the moment of the accident a laceration of the carotid was caused by a forcible twisting movement of the neck, although the arterial tissue exhibited no morbid alteration favouring this. At first, blood might have been able to enter the encephalon; but when occlusion was produced the cerebral accidents supervened. The ramollissement came on on the fourth or fifth day, at the time when the thermometer indicated a notable rise of temperature. M. Verneuil pointed out to pathologists the importance of a minute examination of the cerebral arteries in analogous cases. In many of these an absence of lesions has been believed in solely from not having taken this precaution, while a more complete examination would have exhibited the material lesion.

In a report to the Académie de Médecine by M. Buignet, on the essays sent in in competition for the Orfila Prize, he announces that the successful candidate (whose name is withheld until the time for the official declaration arrives) has made a discovery likely to be of very great utility in therapeutics and physiology. It is the production of crystallised "digitaline" in a state of absolute purity. The product has been submitted to a rigorous examination by the Prize Committee, and the superiority of the procedure adopted for the isolation of this active principle is admitted without hesitation. Splendid crystals resembling those of sulphate of quinine, and furnishing a bright emerald green when treated by hydrochloric acid, were exhibited at the last meeting of the Academy, and greatly admired. The chemical perfection of the product has been confirmed by its physiological and therapeutical effects in the hands of MM. Vulpian and Marrotte. Its promptitude and intensity of action are far greater than is the case with the digitaline of Homolle and Quévenne—three milligrammes administered in twenty-four hours producing saturation and intolerance, and one milligramme daily being ill-supported by most patients, so that more than half this quantity cannot usually be given. It is evidently an agent of tremendous power, which will require great caution in its employment, and may prove a fearful weapon in the hands of the poisoner.

M. Decaisne, at a recent meeting of the Académie, gave an interesting account of an epidemic of "essential jaundice" which prevailed last autumn in Paris and its environs. His personal experience relates to twenty-eight cases (occurring between October 15 and December 8), seventeen being men of from 21 to 61 years of age, and eleven women of from 17 to 45. With the exception of five of the cases, the disease appeared in the midst of health, and without apparent cause, the icterus first affecting the sclerotica, and spreading over the body in the course of four or five days. The velum palati, in almost all the cases, was of an uniform yellow. There was no fever or diminution of appetite; no pain or tenderness whatever was experienced in the hypochondrium. Under the use of mild aperients, or even mere expectation, the affection passed away in nine or ten days. In five of the cases there was much pain in the loins, itching all over the surface, desire to vomit, and obstinate constipation—symptoms which soon yielded to mild purgatives and abstinence. The persons attacked pursued different occupations, and were placed under different hygienic conditions. Many soldiers, also, of the regiments encamped around Paris, the sanitary condition of which was excellent, also suffered in just the same way. They applied for advice, in fact, not from feeling ill, but on account of their yellow colour.

The best account which we have seen of the extraordinary case of tattooing exhibited by Professor Hebra to his pupils has been furnished by Dr. P. A. O'Connell, in a letter published in the *Boston Medical Journal* of November 16. We transcribe some of the principal passages:—

"Standing upon the demonstration pedestal was a man of about five feet nine, perfectly naked, and of a remarkably fine physique. His form, attitude, and general appearance were such that at the first glance I supposed the figure to be a bronze statue—one of the masterpieces of some great artist who had used imagination to assist nature, and had produced a model of manly development. Vigorous, muscular, in the prime of life, his form alone would have made him an object of interest; while, in addition to this, there was a colouring of his skin which no doubt assisted the herculean symmetry of his form in giving me my first impression of his being a bronze figure. He was tattooed from head to foot, from top to toe. There was not a square inch—yea, not a square of even a quarter of an inch—that was free from the colouring, and the work had been done in the most beautiful style imaginable. The skin presented a very handsome appearance, far more beautiful, I believe, than any leopard's skin can be, and having an effect like the elegant tracery of an exceedingly rich cashmere shawl—only that the colouring was done with indigo principally,

with enough red inserted here and there to give it effect. His whole body, as it presented itself to view, was a 'work of art'; and when one pauses to consider the immense amount of labour, and the severe torture he must have undergone while this was performing, it will be easy to credit the statement that it was not a voluntary submission on his part that made him the subject of the artist's skill."

The man, a Greek by birth, was, it seems, taken prisoner during a maraunding excursion in Chinese Tartary, and was branded in this way in order to show his character wherever he went—the colouring on the palms of his hands, consisting of beautiful lettering, describing the nature of his crime. It took three months of constant work to finish the job, and two companions died either during or subsequent to the process, which caused excessive suffering.

"The different designs were not each more than a few inches in size, and they were representations of elephants, lions, tigers, birds of all kinds, with letters worked in, referring, I presume, to his wickedness, each design being in itself a work of art, and the effect of the whole (with its thin outlines of natural skin, tinted here and there with red, and winding its tortuous course all over the body) being very beautiful. No part of the body, however private, was spared; and when he extended his arm over his head, the symmetry of design and the same elegance of execution showed in the axilla, as in the more noticeable and exposed parts of the body. A couple of dragons ornamented and glared at each other across his forehead. His cheeks had received their allowance of pigment, and his rough wiry beard half concealed and half disclosed the labour that had been expended in the ornamentation of that part of his person. . . . It is five years since the deed was done. His body swelled up very much at the time, was very sensitive to the weather, and continues somewhat so even now. While the artist was at work, it was necessary to chain him down."

As the subject of these curious operations, who is described as a complete rascal, contemplates making an exhibition-tour, we shall doubtless before long have an opportunity of admiring this novel "work of art."

ADDRESS OF SIR WILLIAM W. GULL, BART., TO THE CLINICAL SOCIETY.

Sir William Gull, on the occasion of his re-election to the Presidential chair of the Clinical Society, took occasion to address the Society, and of this speech the following is the gist:—

In addressing you this evening, gentlemen, I have in some sort to throw myself on the forbearance of the Society, for, though I have been able to bring certain ideas together on the subject on which I desire to speak, I have not, for want of time, been able to adopt a form of words such as I should have liked. In some sense I am the spokesman of the Society as its President, in especial when laying before the public the objects of the Society as I would now do.

We, in our calling, differ from some theologians in one important respect: they look on this world as a decaying world, as much worse than it once was; we, as students of nature, are opposed to this view, for if we look to the history of nature we see we are ever advancing towards perfection, even if we are not likely to reach it. This is an improving world, and we are met to advance that idea. We believe that this world has something better in store for all than anything which has yet been seen, and are like to the convalescent, whose last day should always be the very best he has ever spent. Some men are apt to think that science has certain limits set to it, beyond which no man may go; but we believe that knowledge extends far beyond the strictly scientific limit. Doubtless, were the early lower animals assembled together in conclave, they would conceive it quite impossible to transcend their status; that when the world came to megatheriums, let us say, then it must stop. They could not conceive the possibility of such a being as man. But at this point we join the theologians again in accepting a metaphysical element, in forming conceptions of things of which we can have no positive knowledge. In this way we may be said to worship nature, but only in a very limited sense. We look upon our being, not as perfect, but as becoming perfect, and we are here to-night—and at all times have it as our object—to improve these defects of nature, and to endeavour to perfect the human frame.

Respecting the object we work for—this living organism of ours—one great advance has of late been made. We are acquiring a physiological notion of disease. Disease is no entity; it is but a modification of health—a perverted physiological process; and this must at all times be insisted on. Were it not that we fear death, and dislike pain, we should not look upon disease as anything abnormal in the life-process, but to be as part and parcel of it. Few would nowadays venture on a definition of disease; for in reality it is but that course of nature in a living thing which is not health. In health the balance of function is even; incline it to either side, and there is disease. That being so, just as his life-process constitutes an individual and puts him apart from his fellows, so must any alteration in that process be individual, and not general. But to the ignorant disease is an entity—an evil spirit which attacks us and seizes us. Hence arises the word "seizure," which, though in a somewhat different way, we still use, but with a protest. To the charlatan, disease is a set of symptoms to be attacked by a variety of drugs—a drug for each symptom. To us, disease is a life-process of a perverted kind.

Many states are not now called diseases which used to be, and there are still some to be expunged. Some people are always ailing. Some have feeble stability, and to them it is as natural to be ill as it is to others to be well; but this is not disease. So, too, aged persons get ill, but this is not disease—in reality it is natural change simulating disease, and when we try to cure such we use all the farrago of the chemist's shop to prevent the sun from setting. So syphilis at last ceases in the system to be syphilis, and becomes an early universal decay.

It is curious to consider the various morbific agents at work within our bodies, the lines in which they work, and their seats of action. These as yet have been but little studied, and deserve attention. Thus, it is very doubtful if scarlatina begins in the blood, as we should all be apt to say, rather than in any other tissue or fluid. Let it be our object to find out where all these begin within the body, and how they enter the body. In future I hope comparative pathology, which is just beginning to be studied, will teach us much; for in our bodies we may have many organs which are of little or no use to us, and are only relics of a former state of being. What, for instance, is the comparative anatomy of tonsils? Were I to make a man, I do not think I would put tonsils in him. Yet these, and such-like organs, in accordance with the general law, are more prone to disease than are the others which are of real use in the system. I remember the case of a man who had a permanent vitelline duct. He had been out on a cold day, and the motion of the intestines twisted them in a mass round this persistent duct, and he died. I made a preparation of the duct, and wrote under it—"Cui vitam atque mortem dedit diverticulum." Every part of the body is alive, and has its own individual life and pathology, whether it be immediately required or not; only, if not required, it is more prone to disease than if it were. I could, for instance, suppose a fœtus of four months going to the Doctor and saying—"I am going all wrong; my Wolffian bodies are disappearing, and kidneys are coming in their stead." Yet that is as much a condition of disease as some of those conditions of which I speak.

It is of the utmost possible importance, then, to be able to tell what we have and what we have not to cure. How often do we find people trying to do what is impossible! Some women have no more vital capacity than a canary bird; they are constantly ill, and it is useless to attempt to make them well. A man came to me, and said—"I don't know what to do with So-and-so. I have given her everything I could think of, and she will not get strong." "Why," I said, "you have been trying to put a quart into a pint pot! You cannot make her strong, and never will."

When a new instrument or some improved mechanical means of diagnosis is introduced, we must try to make ourselves masters of it, so as to be able to use it aright, even though this is troublesome to ourselves; only we must beware of applying the knowledge thus acquired too early to practice. Thus, as regards the thermometer, doubtless it yields us most valuable information, but we must beware of using it as a guide to our treatment until we have a more complete knowledge of the conditions of bodily temperature.

But after the physical comes the vital diagnosis. It is well

to know exactly what is the condition of each part of the system; but to what is the wrong due? That no weighing or measuring can give you—only experience. A man (say) has pneumonia; that is a fact too vague: what are the dynamics of the disease? One man with a pneumonia will get rapidly well and be right again in a few days, whereas another man will not get well at all. So, in different individuals, a form of disease apparently the same may be different from the beginning; and this we cannot always make out in our diagnosis, especially in internal disease. In skin diseases we can do better.

During the last week I have been called on, as most of you know, to form a diagnosis of the workings of the mind. Here the break-down may be the first sign of the diseased condition, just as it may be in heart disease, peritonitis, and a score of other diseases. A man, after racing up a hill, finds himself breathless and spitting blood. He comes to you, and you find heart disease. It does not mean that the heart disease was produced by running up the hill; it only means that an organ, equal to its ordinary duties, failed when unusual stress came to be laid upon it. So is peritonitis often the result of disease previously latent, but brought on by exposure to cold, or some such agency. Some men say that such cases as those of doubtful sanity should not be taken up by us—that ordinary men are quite as well fitted for finding out the truth as we are, with all our training. If so, all I say is that it is no honour to us.

Now, though the study of diseased conditions might be pleasant enough by itself, therapeutics is the end. We are sometimes twitted with letting Nature alone to do her work. We do not. And here, again, we join issue with the theologians. They say, "If it is God's will that a man die, so be it." But say we "God's will is to be found out; it is not a mere fate." We are no ignorant worshippers of nature, and whether a man is doomed to die or no, we know only by the result. We are corrective agents. We have to adjust and correct. We know the tendency to the recurrence to equilibrum—that is, health—and we endeavour to assist in adjusting this balance in each individual.

In fever, for instance, two things are promptly at work—destructive changes, and changes tending to recovery. In such diseases there are certain superficial accidents which we are apt to notice. In fever there are often complications; but these are really part of the fever process, and are not to be interfered with by themselves. Our study must be, how best to bring the condition to a safe ending: for a patient in fever may get well of the fever, and yet die of a bedsore.

In conclusion, if I have spoken more as regards Medicine than as regards Surgery, I think the Surgeons ought to be indebted to me for hints towards the extirpation of superfluous organs—a grand prospect for the Surgeons of the future.

SIR HENRY HOLLAND, BART., M.D., F.R.S., D.C.L.(a)

Whatever objections may be raised to autobiographical recollections, it is certain that the specimens which we have of this kind of history of the members of our own Profession are few and far between. Looking to their interest and importance, I think it will be an object of regret to all that they have not been more numerous. Whatever may have been the shortcomings of Sir Benjamin Brodie's "Recollections," and however coloured (as they were) by personal bias and unquestionable prejudices, no one could rise from their perusal without being convinced that Brodie rendered good service to his brethren by their publication. Brodie had a practice as extensive, if not more so, than Sir Henry Holland, yet he confines his reminiscences to those with whom he was more immediately associated in the practice of his Profession. We have now to deal with a work of a very different kind. Fascinating, able, and graphic it undoubtedly is, and as the record of the life of a man who has filled a very important position, Sir Henry Holland's "Recollections" must be regarded as a most valuable contribution to the history of the age in which he lives. He was born at Knutsford on October 27, 1781, on the very verge of the French Revolution. He early imbibed a passion for travel, and he describes with graphic power his journey to his maternal grandmother's brother at Newcastle-on-Tyne. He was for a year or two at a private school at Knutsford, and even then he made excursions round the neighbourhood in search of the picturesque and instructive. He was subsequently under the tuition of the Rev. Mr. Turner, at Newcastle-on-Tyne. During this period he made a journey to the summit of Blackstone Edge, and there he describes the emotions he experienced at the sight of the sea from the top of Tynemouth Castle. Soon afterwards he took a voyage to Jamaica, and describes with much power the effect of this voyage upon him. He subsequently took several pedestrian excursions round Newcastle. In 1803 he left Newcastle for a year, and was at the school of Dr. Estin, near Bristol. He there became the head boy, succeeding Sir J. C. Hobhouse, afterwards Lord Broughton. Here he contracted an intimate friendship with Dr. J. Bright, for many years one of the Physicians at the Westminster Hospital. At the Christmas vacation he came to London, and passed some time with the celebrated Dr. Aiken, who resided at Stoke Newington, then a rural district near London. This was sixty-six years since. He has no recollection of Charing-cross, Pall-mall, or Piccadilly, but he has a vivid remembrance of the shooting fall at London-bridge, which was then, as in my own time, a perilous adventure. Tyburnia and Belgravia were then unknown, and he speaks in eloquent terms of the miserable Five Fields of Chelsea, and of the desolate wastes of Tyburnia which met his eye. He left Bristol on foot to return to Knutsford. When he was 16 years of age he was articled to a Liverpool merchant. Fortunately, he did not like mercantile pursuits, and determined to enter the Medical Profession. He passed two sessions at the Glasgow University, and there became acquainted with the celebrated Sir W. Hamilton. He states that when here he made his earliest contribution to literature, in the form of a letter to the *Morning Chronicle*.

It may be observed here that when at Edinburgh Mr. Holland formed acquaintance with most of the celebrated men who were then connected with that renowned seat of learning. Amongst others were Brougham, Sydney Smith, Walter Scott, Dugald Stewart, Jeffrey, Playfair, Henry Erskine, Dr. Thomas Brown, Leslie, Sir James Hall, and others. He early became identified with the leading Whigs and with the *Edinburgh Review*. It is probable that his Whig connexion favoured his appointment as Physician to the Princess of Wales, the Whigs at the time acting as her friends, in opposition to the Prince Regent, who had betrayed the party.

However this may be, Dr. Holland accompanied the Princess on her Continental tour, and gives a graphic and interesting account of many of the places and scenes which he visited whilst he was her Medical attendent. It was this connexion with the afterwards Queen Caroline that first brought Dr. Holland's name prominently before the public. In the memorable trial of the Queen, in 1820, the heart of the public was stirred in a manner which it is difficult to adequately describe. A Bill of "Pains and Penalties" had been brought by the Government in the House of Lords against her. The King was most unpopular, party feeling ran high, and the middle and lower classes, with many of the upper, sided enthusiastically with the Queen. The character of the King had been long a scandal; his profligacy was universally known, and it was generally believed that he had behaved with great cruelty and injustice to his wife. It is scarcely necessary to enter into further particulars of the state of the nation at this period, but it is certain that no event in our time caused so much excitement as the Queen's trial. One illustration may serve to show this in a marked manner. I was a small boy in a large school at Walworth. It is probable that not a boy amongst the hundred and twenty was in reality a "King's man"; but if we flagged in our amusements on a half-holiday, or wanted some extra excitement, some of the bigger boys

(a) "Recollections of a Life." By Sir H. Holland, M.D., etc. Longmans.

would suddenly raise a cry, "The King for ever!" The effect of this "call to battle" was instantaneous; the "Queen's men" immediately raised a defiant answer, "The Queen for ever!" Then ensued a general fight, which was sometimes carried on in so ferocious a spirit that many of the combatants were either carried to "Hospital" or placed *hors de combat*. The means resorted to by the prosecution were most offensive to the English people. Italian witnesses by dozens were brought over to give evidence, some of these of very questionable character. Sir Henry, in his "Recollections," speaks of having been "cognisant of certain unwarrantable means of obtaining evidence, which, so obtained, was reluctantly used by the counsel to whom it fell to employ it." Unquestionably, nothing could have been more disgraceful and disgusting than the evidence of the two principal witnesses, Theodore Majocchi and Madame Dumont. The "Non mi ricordo!"(b) of the former, and the filth of the latter, raised the just indignation of the people. Dr. Holland was called for the defence. The effect of his evidence was immediate and startling.

After the prevarications, the inventions, and the probable perjuries of the witnesses for the prosecution, Holland's evidence stood out, fortified by a straightforwardness and truthfulness which must have astonished the House as it did the nation. It was, in fact, the turning-point in the trial. With that evidence now before me, I cannot be surprised that its effects were so extraordinary. Nothing can exceed its plainness and its unequivocal honesty. Sir Henry states that he feared a severe cross-examination; but in this he was mistaken. He modestly observes (page 144)—"I was not detained more than an hour at the bar of the House, and encountered no difficulty which I was not prepared fairly to meet. Two or three congratulatory notes from peers present came to me immediately after the examination had closed." Sir Henry does not do himself justice in his brief notice of the Queen's trial. I have said that his evidence had a marked effect on the result of the trial. I have stated in one of my papers in this journal, that on one occasion, when dining with the late Lord Lyndhurst, at the house of a connexion of mine, the "Queen's trial" formed the subject of conversation; and I related a circumstance which occurred in the House respecting the great Lord Erskine. I ventured to recall Lord Lyndhurst's recollections of the evidence of Dr. Holland. "You cross-examined him?" "I did; but his evidence was not to be shaken. I feared to push my questions too far; the answers to those I put to him were damaging to us."

It is very difficult to follow the discursive narrative of Sir Henry; that very discursiveness which forms a principal charm of his remarkable work is sadly discouraging to one who attempts to "review" it. We must refer the reader to the book itself for the account of his most interesting travels, extending over a period of nearly seventy years. The perusal will amply repay the reader. He visited during this time many places, and sometimes at very long periods between. Immediately after taking his degree he spent a year and a half in travelling in Portugal, Spain, Sicily, the Ionian Islands, Greece, and some parts of Turkey. Whilst Physician to the Princess of Wales he travelled with her in Germany, Sicily, and Italy.

After he was established in practice, he made it a rule to travel for two months in each year, and this practice he has continued to the present time. He made up his mind early in life not to seek for a very large practice, and determined that his income should not exceed £5000 a year. Owing probably to his political connexion with the Whigs, Holland's practice very soon became remunerative, and in a year or two reached £1200. It was not long before it amounted to just under £5000, and with this he was content. It will be seen that Holland never really suffered in his early practice, as some men of eminence have done, from straitened circumstances, but commenced, as it were, free from pecuniary anxieties. He contends that he never lost anything by his annual excursions. They fitted him for renewed Professional work, at which he continued assiduously during the other ten months of the year. Moreover, he left London at a time when most of his patients were also away. Few men, particularly of our Profession, have travelled so much as Sir Henry Holland, or in such a diversity of places. In both the Old and New World he has visited the scenes of the great battles of ancient and modern times, from those of Marathon, Salamis, and Thermopylæ, to Waterloo and Gettysburg. He also visited the classic places in Greece, Asia Minor, the Holy Land, and other places—not as a mere superficial spectator, or on a "railroad journey," to boast how many miles he had travelled in a given space of time, but with the laudable object of "seeing and verifying through natural features and by other evidences those unknown and doubtful localities which history has bequeathed to our research." In these visits his classical knowledge and his natural acquirements rendered him much service, and it is not too much to say he clothed with fresh interest most of the memorable places which he visited. Not the least interesting of his excursions and voyages are those which refer to the rivers and oceans of the New and Old World; of his following the course of the Danube from its assumed source to the Black Sea; his voyage down the Rhine; up the St. Lawrence for 2000 miles; his excursions on the Ohio, the Susquehanna, the Potomac, the Ottawa, and the Nile; his visits to volcanoes—to Stromboli, Etna, and Vesuvius. These travels are of the utmost interest, not only for the descriptions he gives of the localities, but from the reflections on, and deductions drawn from, the phenomena he observed. It is all but impossible in a notice of this kind to do justice to them; and, as we have observed, the book must be read in order that the full value may be known and appreciated. The most interesting portion of Sir H. Holland's book—that, indeed, which forms the chief portion of it—is his account of the persons with whom he has been on intimate terms of acquaintanceship, or to whom he has been merely introduced. If there be any drawback to the interest of this account, it is the occasional meagreness of the sketches of some with whom we should have been glad to have known more through his descriptions. When he does, however, give us a portrait, it is drawn from the life with a graphic fidelity which is absolutely charming. It is impossible to conceive anything more interesting than his sketches of Sir Walter Scott, Lockhart, Ali Pasha, Talma, Blumenbach, and Canning. If we were inclined to be critical we should take exception to his sketch of the late Lord Lyndhurst. That great man was not a mere lawyer, with only a lawyer's "parchment brain"—far from it; he was not only a finished gentleman but a man of erudition. He might, indeed, have had narrow views on some of the questions which occupied the attention of the Government during the time he was Lord Chancellor, but his views, if occasionally mistaken, were clear, and always expressed with a lucidity and power which were never surpassed. No man had greater influence in the Cabinet than Lord Lyndhurst. It was said to me, by one well able to form an opinion, that he, of all the other members of Sir Robert Peel's Government, was the only one who ventured to differ with that great Minister on important questions.(c)

Sir Henry Holland had the rare privilege of attending professionally six Prime Ministers of England. Unquestionably the most eminent and interesting of these was George Canning. Here is Sir Henry's account of his connexion with that extraordinary man:—"It is pleasant to me to recall, through the haze of intervening years, my many conversations with this most accomplished man on literary or political topics, such conversations often occurring when he was confined to his couch by gout or other illness. One of these, turning upon his favourite poet Virgil, is more strongly impressed on my memory from his presenting me at the moment with a copy of his own (a French edition in three volumes, 1754), lying on the table before him. He wrote his name, with mine, in each volume. This was immediately after a dangerous illness, in which I attended him in 1825. There was a charm in his fine countenance enhancing that of his conversation, and felt by all who knew him. His voice well harmonised with these endowments—an influence itself always powerful in private even more than in public life; surpassing that of mere beauty, and often surviving when all beauty is gone." In a note to this passage, Sir Henry says, in his happiest way, "Various well-known passages show the feeling of our great poets as to this charm of voice. But it is strange how little this happy endowment is generally recognised in the amount of grace and pleasure it imparts to social and domestic life, and how little is done or attempted to educate an organ which is susceptible of improvement even where Nature has dealt harshly with it in the beginning. Quintillian counsels well on the subject, as on every other." Sir Henry refers to a case of homicidal insanity in his sketch of Mr. Canning, which at the present time is of

(b) In his cross-examination, Majocchi sheltered himself, when in a difficult position, by the invariable answer—"Non mi ricordo!" Dumont did not appear in a less disgraceful position.

(c) It is well known that Lord Lyndhurst was strongly opposed to the repeal of the Corn Laws. At the Cabinet Council at which it was determined to carry this great and beneficial measure, Lord Lyndhurst was absent. His absence was probably the result of a wish expressed to him by his chief. Whatever the cause, he certainly was not present on that occasion.

unusual importance when two cases of "murder" have attracted so large a portion of the attention of the public. The case is of peculiar interest, as coming from the pen of one of the most acute thinkers of the age, and one who has shed so strong a light on mental aberration. The lawyers would have been puzzled by such a case, had the unfortunate lunatic been tried for homicide. Would they have advanced the plea that the "moral aberration" did not affect the "intellect" of the murderer? Could they, in face of Erskine's famous defence of Hatfield, ignore the plea of insanity, and consign the wretched man to the scaffold? It is probable that they would have done so. The dictum of the law is, that if a man commit a crime, knowing that it is a crime for which, if he commit it, he will be punished, he is "legally" responsible. Now, let us see what Sir Henry Holland says on this subject. In our opinion, the dictum of such a man has more weight and cogency than the "eloquence" of advocates and the "ruling" of judges. Sir Henry Holland says—"Other recollections blend themselves with the name of Mr. Canning—one of them illustrating a very curious form of mental aberration. In 1825, as I think, when he was Foreign Secretary, and living at Gloucester Lodge, I was one morning called in haste to see a patient at Brompton. Scarcely had I entered the room of this gentlemen (for such he was, and had filled a diplomatic office of some consideration) when he eagerly besought me to protect him against himself. He told me a propensity to kill Mr. Canning had come upon him suddenly, and so strongly that he had taken these rooms at Brompton to be in the way of satisfying the impulse. But against this insane will (induced by some supposed official injustice) a sounder feeling was struggling within him, and for the moment gained mastery enough to lead him to seek for instant restraint. I, of course, lost no time in providing it—warning Mr. Canning meanwhile to return to Gloucester Lodge by a different road. These strange cases of what may be called *duplicity* of the will are not rare in the long catalogue of mental infirmities. In a lighter and less critical form such incongruities enter into the most familiar moods of character and acts of life. But even here they need to be self-recognised and resisted, to prevent their gaining mastery over the mind. The consistent and firm command over the will ranks amongst the highest attainments of man." How does this anecdote, by its simple and "unadorned eloquence," demolish the fabric of "legal insanity" so elaborately built up by the twelve judges? The "legal mind," as it is called, is competent, no doubt, to deal with questions of fact; but the moment the lawyer has to decide upon questions of mental philosophy, he is "at sea." The only lawyer who at the present moment occurs to me as having risen to an elevated position with regard to mental aberration was Lord Erskine, in his memorable defence of Hatfield, in which he certainly did more to put the question of criminal insanity on a proper basis than any lawyer before him or since. We again quote from the "Recollections":—"Another recollection, again, is strongly impressed upon me. In February, 1827, I was called down to Brighton to see Mr. Canning, then suffering under very severe illness, the effect, I cannot doubt, of midnight exposure at the funeral of the Duke of York in the depth of winter. On my return to London, I hastened to Lord Liverpool, to report to him on what he himself strongly expressed to me as a matter vital to his Government. Having satisfied his inquiries as to Mr. Canning, he begged me to feel his own pulse—the first time I had ever done so. Without giving details, I may say that I found it such as to lead me to suggest an immediate appeal to his Medical advisers for careful watch over him. The next morning Lord Liverpool underwent the paralytic stroke which closed his political life. His pulse alone had given one cause for alarm; but there were one or two passages in our half-hour's conversation so forcibly expressing the harassing anxieties of his position, that I could hardly dissociate them from the event which then instantly followed."

Here is a graphic sketch of Talleyrand:—"My intercourse with Talleyrand was chiefly at Holland House, where I frequently met him at dinner, a meal to which he came with his animal appetites keenly awake to enjoyment. His face and figure have been often described; if I were to speak of them as they were when I knew him, I should simply say they were indescribable. His portrait at Holland House is placed between those of Mackintosh and Romilly—a contrast as strange as were the characters of the men. His conversation was also cast in a mould of its own, very unlike anything else—short, pithy sentences, poignant in their sarcasms upon men and events, witty without effort or the assumption of being so. In studying Talleyrand—and it is a curious study—a comparison often suggested itself to me in Cardinal de Retz. Their intellectual and moral qualities were of the same general stamp, and attested much in the same way, though on a very different scale of action. Their epigrammatic maxims have the same peculiar flavour, and their ecclesiastical positions the same relation to the actual religion of the two men. The Cardinal, however, doubtless stands lowest in the comparison. The petty incidents and passions of the '*guerre de la fronde*' were little fitted to dignify a public character."

Two of the most interesting sketches are of two other Prime Ministers to whom Holland was Medical attendant, and with whom he was on intimate terms. He draws this able contrast between these two remarkable men:—

"Without infringing on my rule of abstinence from Professional anecdote, I may briefly notice the singular contrast of natural temperament between Lord Palmerston and Lord Aberdeen. The inborn vivacity and optimism of the former pervaded his life—both public and private—rescuing him in a great degree from those anxieties which press, more or less, upon every step of a Minister's career. He had a singular power of clear and prompt decision, and often had occasion to know; and was spared that painful recurrence to foregone doubt which torments feeble minds. Lord Aberdeen habitually looked at objects and events through a more gloomy atmosphere; he was wanting in that elasticity of body and spirit so influential in a public career. I recollect, on one occasion, to have seen them as patients in immediate succession for several days together, when this contrast was presented under those strongly marked colours which illness more especially discloses." Here are the reflections of Sir Henry on this contrast—reflections of high interest and value, especially to the Medical Practitioner:—"The practice of the Physician shows him, indeed, at every moment these strange diversities of human temperament—intellectual and moral—often concealed in part, and especially among the higher classes, by the outer usages and appliances of social life; but disclosed, or even intensified, by the conditions under which he regards them. Even where most obvious to common observation, they scarcely receive due attention in the practical conduct of life. The logic of one man's mind is not the logic of another; and their feelings and tastes equally differ in kind and degree. A rational allowance for these innate diversities of temperament might spare some of the conflicts and passions which disturb both public and private life. But reason is not often or readily invoked in cases of this kind." J. F. C.

(*To be continued.*)

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

EDINBURGH, January 23.

PUBLIC feeling is again running high on the question of female Medical education. The present fighting-ground is the Royal Infirmary. Your readers are aware that the supporters of this movement have lately succeeded, by small majorities, in electing managers favourable to their views, and in passing a motion admitting female students to the wards and classes of that institution. It must not, however, for one moment be supposed that this apparent majority represents a real growth of opinion in favour of this movement, and it is well that the Profession and the public not conversant with Edinburgh matters should know how a temporary victory has been achieved by a party doomed ere long to sink out of existence. Notwithstanding the constancy to this cause shown by many of its adherents, sensible people here have lately been growing tired of the troublesome innovation, and the movement, left to itself, would have died a natural death. A side wind has for the moment fanned into brightness the feebly flickering flame. When this subsides it will pass the more suddenly into utter extinction. What, and of what nature, is this side wind?

There are two parties strongly opposed to the erection of the new Royal Infirmary on the Watson's Hospital ground—firstly, those who have all along been opposed on general grounds to the new site; secondly, a number of the residents in the neighbourhood of the proposed building, who have local objections to an Infirmary in their vicinity. These parties have all along sought, and have at last managed, to pick a hole in the plans of the late managers. It now appears, from the statements of these parties, that the managers were about to erect an Infirmary on a scale which would cost double or triple the amount of the funds at their disposal, and so on. Upon

this *causa belli* they determined to drive the Infirmary—if they possibly could by fair means, or foul—off its newly chosen site, and back to its ancient ground. This it was quite impossible for them to do in a straightforward manner on the merits of the question itself; and how have they proceeded? From a new body of managers they might succeed in obtaining what they could not get from the old, especially if these new managers should feel that their tenure of office depended upon the votes of this band of dissentients. A new board of management could be secured by throwing in their influence on the side of the supporters of the female Medical movement, and thus this party have obtained their majority. To show that this was the case, I quote the words of one of the local objectors from a letter which appeared in the *Scotsman* on Monday, January 15. The writer concludes a long letter, exposing the mismanagement of the late managers, with the following words:—

"An opportunity will, on Monday, be indirectly afforded to contributors of expressing unmistakably whether or not the gentlemen who have had the administration of the affairs of the Corporation during the past year are worthy of their continued confidence. The question of the admission of lady-students will also be then under consideration. To this I shall make no further allusion than to express my conviction that, both as regards the Corporation and the contributors, it is of less present importance than the administration of the building fund. The doors of the institution can at any time hereafter be closed against the ladies; but should £50,000 be sunk in superfluous and unsightly buildings, neither the money of the citizens nor the amenity of the city can ever be restored. In these circumstances, all those contributors who still value the beauty of their native city should attend the meeting on Monday; and although some of them may have scruples as to the propriety of admitting lady-students, yet, if they desire to preserve their legitimate control over the funds of the institution, let them vote for the recognition of contributing firms as members of the Corporation."

Thus, by a coalition of bodies which have no affinity for one another, right is overthrown and injury done to one of the noblest institutions in our city, and, through it, to our whole Medical school. Looking at the matter in this, the true light, sufficient justification is found for the following proceeding, which might otherwise be open to question. It has been felt that, at all hazards, an effectual stop must be put to the consequences of these recent votes. At the instance of three of the contributors, the Lord Ordinary has granted an interim interdict, prohibiting the Infirmary managers from declaring Andrew Coventry, James Cowan, David Masson, W. White Millar, and Alexander Nicholson (the managers recently elected by the majority of the contributors) to have been duly elected.

The pleas in law are as follows:—"1. The complainers are entitled to have suspension and interdict as craved in respect that the respondents, declared by the Lord Provost to have been elected as aforesaid, were not duly and lawfully elected. 2. Upon a sound construction of the Royal Charter, statutes, and Act of 1870, companies or firms are not entitled to vote at courts or meetings of contributors, and contributions given in the name of companies or firms do not afford a qualification upon which partners, mandatories, or others can vote at such courts or meetings. 3. Upon a sound construction of the said Royal Charter, statutes, and Act of 1870, numbers or classes of persons are not entitled to vote jointly, and contributions given in the names of numbers or classes of persons do not afford a qualification upon which any one or more such persons, or any mandatories, can lawfully vote at courts or meetings of contributors. 4. The complainers are entitled to the interdict as craved in respect that the gentlemen named in Dr. Maxwell Nicholson's motion were duly elected at the said meeting of January 1 by the majority of lawful votes. 5. The proceedings complained of being incompetent, illegal, and unauthorised, the complainers should have suspension and interdict as craved."

Small-pox is still largely on the increase amongst us. On Sunday night the number of cases under treatment at the City Small-pox Hospital was 204. During the past week there were 39 deaths from this disease; of these only 12 occurred in the City Small-pox Hospital, the remaining 27 having occurred in private practice. Unless the mortality is much greater in private practice than in the Hospital, it indicates a large number of cases under treatment throughout the town. It is gratifying to learn that the revaccinated still appear to enjoy a perfect immunity from the disease. At the same time, it is surprising how many persons neglect to avail themselves of the protection afforded by this simple means.

The Medical Officer is actively endeavouring by all means at his disposal to stay the progress of the disease. Amongst other measures, the following intimation has appeared in the advertising columns of the daily papers:—

"*Public Health.*—The public are hereby warned against exposing articles of clothing and bedding which have been in contact with patients suffering from any infectious disorders. On application to the police, houses will be fumigated, and articles of clothing and bedding removed for special fumigation. Before clothes or bedding can be washed, they must be disinfected. An officer will be sent at any time to apply suitable disinfectants, so as to render the process of cleansing free from risk.—Sanitary Department, Police Chambers."

GENERAL CORRESPONDENCE.

THE LATE ROBERT WADE.

LETTER FROM MR. HENRY SMITH.

[To the Editor of the Medical Times and Gazette.]

SIR,—As an old friend and colleague of the late Mr. Wade, I must thank "J. F. C." for the true and honest words emanating from his kindly spirit and discerning judgment; and, without adding one word to the just tribute of praise already afforded in that able and interesting sketch, I cannot forbear giving my testimony to one point in Wade's Surgical career, to which prominent allusion has been made—I refer to his persistent advocacy of the use of potassa fusa in the treatment of the more severe forms of stricture. Having been his colleague at the Westminster General Dispensary for ten years, I had opportunities of becoming well acquainted with his views, and of testing the truth of his opinions on this much-vexed question in a practical manner. Without being an enthusiast, I hope I became a convert to Mr. Wade's views, and for twenty years I have employed the potassa fusa in the more severe forms of stricture with the utmost benefit; and I entirely agree with "J. F. C." that Mr. Wade "snatched a valuable agent from oblivion." It has stood its ground through good and ill report, and notwithstanding much ridicule and sarcasm; and I believe that it is one of the most valuable remedies we possess in the treatment of certain forms of stricture.

Wimpole-street. I am, &c., HENRY SMITH.

THE EDINBURGH INFIRMARY AND FEMALE STUDENTS.

LETTER FROM DR. BALFOUR.

[To the Editor of the Medical Times and Gazette.]

SIR,—As your anonymous Scotch correspondent has named me in my official capacity as "godfather"—whatever that may mean—to a certain proposal intended to favour the admission of female Medical students to the Edinburgh Royal Infirmary, by withdrawing a limited, and according to the present regulation insufficient, number of beds from the male students for the exclusive use of the females, you will, I hope, allow me to state that such a proposal never received any countenance from me; and though my warmest sympathies are with those who advocate free trade in Medicine, as well as in everything else, I have no doubt that in time this matter will be arranged without detriment to the students of either sex.

I am, &c., GEORGE W. BALFOUR.

Tweeddale-court, Edinburgh, Jan. 28.

A PIEBALD CHILD.

LETTER FROM MR. REILLY.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have at present under my care a child with congenital discoloration of patches of the skin, which is alleged to have been caused by a fright which the mother sustained when she was between three and four months advanced in pregnancy.

It appears that the mother, who is the wife of a milkman, when coming downstairs one morning, saw a man of colour stealing milk from a can which stood in the passage. She at once screamed loudly, and ran to the door after him, where he was met and caught by the husband, who chanced to be returning home, and who then and there inflicted summary chastisement on him.

Nine weeks ago the mother gave birth to a fully developed male child, but whose skin was disfigured by several ugly

black patches scattered all over the trunk and extremities, varying in size from a pea to a patch extending from the nape of the neck to the nates, and nearly encircling the chest and abdomen. The largest patch, shortly after birth, began to slough over the right scapula, but healed up rapidly on the application of a simple astringent lotion.

The mother has promised me that she will bring the child to the next meeting of the Beaumont Medical Society, which will be held at the Beaumont Institution, Mile-end, on Tuesday next, at 3.45 p.m., when I shall be very pleased to show it to any of my Professional brethren who may take an interest in the case. I am, &c., FREDK. J. REILLY.

Amesbury House, 68, Victoria-park-road,
South Hackney, Jan. 31.

THE CHELMSFORD DISPENSARY.

LETTER FROM DR. JAMES NICHOLLS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I send you this day's *Chelmsford Chronicle:* by it you will see how the Medical men of this our town are held by the Committee of the Dispensary. We are not only asked to work for nothing, but, as each out-patient has to pay twopence per week, the Committee actually at this rate propose to make some £50 or £60 per year clear profit out of the gratuitous hard work of their Medical officers. This cannot be endured by at least one of their present officers—viz., Yours, &c.,

JAMES NICHOLLS, M.D., F.R.C.S. (exam.).

Chelmsford, January 26.

GRATUITOUS ADVICE.

[To the Editor of the Medical Times and Gazette.]

SIR,—No one can doubt, who observes the demoralising effect of the abuses of the Hospital and Dispensary system, that Self-provident Dispensaries, as recommended by the Charity Organisation Society, are the only remedy.

The general Practitioner is sacrificed to the interests of—

1. The Practitioner who has made a large practice, and yet opens his doors to gratuitous patients.
2. The ambitious young Practitioner, who wishes to get practice by the same means.
3. The quack, legally qualified or not.
4. The homeopathist and water-cure doctor. And last, not least—
5. The druggist who prescribes in a shop blazing with gas and gold labels, infinitely to the injury of those who apply.

When will the Medical Council do their duty by putting down the "consulting-rooms" and "Medical advice before 11 and after 7 p.m." of the unqualified?

I am, &c.,

January 12, 1872. A REFORMER OF ABUSES.

P.S.—Who can wonder at the condition of the general Practitioner, when in every street and house, almost, Mrs. A says to Mrs. B, "Why pay Mr. C for advice when Dr. D or Mr. E—'such a clever man'—will give it you for *nothing?*" How valuable the diagnosis and prescription in forty-five seconds!

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 25th ult., viz.:

Bethell, Alfred, L.S.A., Pelton, Somerset, student of King's College.
Cartwright, Henry Gordon, Burton-on-Trent, of Guy's Hospital.
Cawley, Thomas, Great Yarmouth, of Guy's Hospital.
Fordham, John William, L.R.C.P. Edin. and L.S.A., Stepney, of the London Hospital.
Foster, William James, Birmingham, of the Birmingham School.
Griffith, Richard Glyn, Bangor, North Wales, of King's College.
Moore, Arthur Jackson, L.S.A., Debenham, Suffolk, of the London Hospital.
Murdoch, Donald, L.S.A., Rotherhithe, of Guy's Hospital.
Oldman, Charles Edmund, B.A. Cantab., Cambridge, of Guy's Hospital.
Popham, Francis William Horne, L.S.A., Gawler, South Australia, of University College.
Rendall, William, L.S.A., Maiden Newton, Dorset, of Guy's Hospital.
Skaife, Frederic, L.R.C.P. Edin. and L.S.A., Easingwold, Yorkshire, of St. Bartholomew's Hospital.
Stokes, Henry Haldane, M.B. Dub., Tralee, co. Kerry, of St. Bartholomew's and Dublin Hospital.
Ward, Walter Alfred, L.S.A., Notting-hill, of St. Bartholomew's Hospital.

The following gentlemen passed on the 26th ult., viz.:—

Bland, George, L.S.A., Gerrard-street, Islington, student of St. Bartholomew's Hospital.
Hamilton, Alexander Macleod Stavely, M.B. Queen's Univ. Ireland, Ballymaney, co. Antrim, of St. Bartholomew's Hospital.
Magrath, John, L.S.A., Forest Raw, Sussex, of University College.
Matcham, Alfred, L.S.A., Lowestoft, of Guy's Hospital.
Palmer, Ambrose Myrie, Clapham, of St. Thomas's Hospital.
Pitt, Isaac, L.R.C.P. Edin. and L.S.A., Willenhall, of the Birmingham School.
Ross, William Grahame, M.D. McGill, London, Ontario, Montreal, of the Canadian School.
Russell, Ebenezer Geer, L.S.A., Poole, Cornwall, of Guy's Hospital.
Steele, Edward Harry, L.S.A., Dorchester, of Guy's Hospital.
Wade, Reginald, L.S.A., Cross, Somerset, of St. Bartholomew's Hospital.
Wallace, Thomas, M.D. Queen's Univ. Ireland, Cardiff, of the Belfast School.
Weatherhead, John Fraser, L.F.P. & S. Glasg. and L.S.A., Holloway, of St. Bartholomew's Hospital.
Williams, Alfred Henry, M.B. Aberd., Brixton, of the Aberdeen and St. Thomas's Hospital.

Thirteen candidates passed the examination in Surgery, and, when qualified in Medicine, will be admitted Members of the College, and twenty-one were referred to their Professional studies for the usual period of six months, including one candidate examined under the old regulations, who was detected copying. The total number of candidates amounted to ninety-two. Of this number there were twenty-eight holding the L.S.A.; three L.R.C.P. Edin. and L.S.A.; two M.D. Queen's Univ. Ireland; one M.D. McGill, Toronto; one M.B. Cantab.; one M.B. Dub.; one M.B. Aberd.; one L.R.C.P. Lond.; one L.R.C.P. Edin.; and one L.F.P. & S. Glasg. and L.S.A.

Arts Examination.—At the recent Preliminary Examinations for the diplomas of Fellowship and Membership of the Royal College of Surgeons, 289 candidates presented themselves, of which number 195 passed—viz., for the Fellowship the following:—

Adams, J.	Granger, F. M.	Payne, H. P.
Apthorp, E. P.	Griffith, W. S. A.	Phillips, E. J. M.
Barnes, J. J. F.	Haig, P. de H.	Revell, R. C.
Beddoes, C. C.	Hansell, W. C.	Richards, T.
Bennett, W. H.	Hawken, F. J.	Ross, J. H.
Benson, P. H.	Hawkins, A. F.	Russell, A. P.
Besant, W. H.	Hill, M. M.	Shaw, H. G.
Bonsall, G. R.	Hodgson, G. G.	Speed, H. A.
Brock, A. C.	P'Anson, W.	Tarrant, W.
Brock, C. de L.	James, A. C.	Thane, G. D.
Burton, H. C.	James, W. C.	Thomas, A. A.
Candler, W. J.	Johnson, W. B.	Tredennick, E.
Carter, R.	Lacy, A. G.	Tudge, J. McD.
Clubbe, C. P. B.	Mackenzie, J.	Vincent, O.
Cripps, W. H.	Merriman, J. W. C.	Ward, W. C.
Dixon, J. F.	Moore, H. W.	Webber, W. L.
Eccles, A. S.	Munro, H.	Weiss, H. F.
Edwards, R.	Nicholls, H. A. A.	Wherry, G. E.
Evans, T. C.	Owen, C. W.	Whitlock, E. W.
Friend, H. E.	Page, A. A.	Young, A. H.
Galloway, A. W.	Paul, F. T.	

The following gentlemen passed for the Membership, viz.:—

Addison, C. J.	Florigny, L. E.	Poynder, J. L.
Alden, E. W.	Fox, L. W.	Prior, E. T.
Anderson, A. R.	Gasenigne, H.	Proffitt, W. J. W.
Andrew, J. E.	Godfrey, W. E.	Pullon, H.
Armstrong, W.	Hains, J. C. L.	Raitt, A. G. E.
Astley, H. J. D.	Harding, A.	Rees, A.
Atkey, W. T.	Harries, J. G.	Richardson, R. T.
Baber, J. A.	Harris, S. C.	Richardson, T. W.
Bailey, A. J.	Hart, R. A. H.	Ritchie, J.
Baillie, J. H. J.	Hawks, R. S.	Roberts, W. S.
Bain, D. S. E.	Heald, R.	Rodwell, E. M.
Ball, W. M.	Heelas, J.	Rusher, J. B.
Barton, G. H.	Hicks, E.	Salkeld, C. A.
Batty, W. E. L.	Hicks, H. G.	Sharples, C. W.
Bell, M. L.	Houghton, J. H.	Smale, M. A.
Bennett, H. J. L.	Jeans, F. A.	Snell, E. G. C.
Bennett, St. J. C.	Jefferson, W. D.	Spofforth, J.
Blackman, J. G.	Jones, C. C.	Stacpoole, C. A.
Blaikie, W.	Jones, H. O. P.	Stokes, R. L.
Blaker, T. F. I.	Judkins, E.	Tarleton, P.
Bruce, R.	Kelham, H. R.	Telford, J.
Burd, G. V.	Kendale, P. S.	Thomas, D. H.
Caffyn, S.	Kidd, A.	Thompson, E. J.
Calcott, L. B.	Lalor, G. J.	Treadgold, F. C.
Castle, H.	Lewin, E. T.	Tribe, H. T. B.
Chadwick, W. F.	Lewis, D. G.	Turner, W. P.
Christie, W. A.	Lewis, W. A.	Vasey, J. A.
Clarke, W. H.	Ling, C. A. S.	Vasey, S. W.
Cleveland, F. W.	Logan, T. T.	Wallis, P. E.
Coleman, G. E.	Lush, J. S.	Walsh, W. A. S.
Coles, D. A.	Macdonald, H. M. W.	Walter, E. W.
Collington, J. W.	Maile, C. E. D.	Ward, G. S.
Cooper, P.	Marsh, W. A.	Whistler, C. W.
Crane, C. R.	Mason, C. R. S.	Whitcombe, W. P.
Cripps, C. C.	Merriman, W. S.	Wickham, H.
Curll, H. B. S.	Middleton, C. F.	Wild, J. L.
Dresser, A. K.	Moore, G. R.	Willows, R. G. E.
Dunn, H. P.	Morgan, W.	Wilson, W. T.
Evans, J. D.	Nockolds, S. W.	Winn, A. T.
Eve, F. S.	Parker, A. C.	Wood, P. M.
Farmar, E. D.	Parker, G. N.	Woods, J. F.
Feltham, W. P.	Popert, A. J.	Womersley, J. K.
Field, C. H.	Potts, L.	Wright, H. A. K.
Fisher, T.	Pound, F. J.	

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At the ordinary quarterly meeting of the College, on Thursday, the 25th ult., the following gentlemen, having passed the required examinations, were admitted Members:—

Berkart, Isidor B., M.D. Wurtzburg, 33, Harley-street, W.
Ralfe, Charles Henry, M.B. Cambridge, 26, Queen Anne-street, W.
Vanderstraaten, Julian Louis, M.D. St. Andrews, Civil Medical Service, Ceylon.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 25:—

Clague, John, Isle of Man.
Hawthorn, William Thomas, Uttoxeter.

As an Assistant in Compounding and Dispensing Medicines:

Seth, Harry, Holsworthy.

The following gentleman also on the same day passed his first Professional examination:—

Spurgin, William Henry, Guy's Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society on January 26 and 27, fifty-six candidates presented themselves, of whom nineteen were rejected, and the following thirty-seven passed, and received Certificates of Proficiency in General Education, viz.:—

In the First Class, in Order of Merit.

1st. John Manley.
2nd. Frederick de Caux.
3rd. Henry Thomas Batchelor.
4th. James Francis Henry Bottrell and Ernest William Livesey.
6th. Alfred George Bernard, Charles William Gay, and Joseph Hampson.
9th. James Harris Lilley.

In the Second Class, in Alphabetical Order.

Anderson, F. C.
Baldwin, Frederick.
Banfield, Harold W.
Buxton, Alfred St. Clair.
Clegg, John Hague.
Davenport, Harold.
Floyer, Hubert M.
Glynn, Herbert Arthur.
Gordelier, John Thos.
Gordelier, William Gibbs.
Green, Alfred Pierce.
Haines, William John.
Hairsine, Hudson.
Headland, Alfred.
Hughes, David Arthur.
Hastler, James D. W. L.
Ingram, E. Fortescue.
Munns, Frederick George.
Palmer, Harold Lewis.
Pease, Douglas Clifford.
Peck, Frederick Hamilton.
Peskett, Henry.
Simpson, Philip William.
Thomson, Herbert W.
Vickery, Alice.
Walker, William.
Wheaton, Francis D. W.
Wise, Alfred T. Tucker.

APOTHECARIES' HALL, DUBLIN.—At an Examination in Arts held on January 18 the following gentlemen received certificates entitling them to commence their Medical studies:—

Brownrigg, Robert Percival G.
Carmody, Michael.
Carmody, M. Henry.
Castles, Henry.
Fitzmaurice, John Louis.
Kelly, Michael Francis.
Kerin, Michael W.
Nagle, Pierce Patrick.
Patterson, Gerald Walter Cecil.
Peyton, Andrew.
Walter, Matthew James.

The following have obtained the Licence to Practise:—

Cremin, Patrick J.
Harvey, Arthur C.
Murphy, John.
Vickery, George.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRETT, ALFRED THOMAS, M.D. St. And., M.R.C.S., L.S.A.—Medical Officer to the London Orphan Asylum, Watford.

CONNOLLY, PATRICK, L.K.Q.C.P.I., L.R.C.S.I.—Medical Officer, &c., for the Multyfarnham District of the Mullingar Union.

FLEETWOOD, WILLIAM JOHN, L.R.C.S.I., L.K.Q.C.P.I.—Visiting Surgeon to the General Infirmary, Chester.

LEE, ROBERT J., M.D. Camb., M.B., M.R.C.P. Lond.—Physician-Accoucheur to the St. George's, Hanover-square, Dispensary.

MAUNSELL, JOHN, M.D., L.R.C.S. Edin.—House-Surgeon to the Blackburn and East Lancashire Infirmary, Blackburn.

SUMMERHAYES, WILLIAM, M.R.C.S. and L.S.A.—Medical Officer for District No. 3 of the Norwich Union.

BIRTHS.

BROWN.—On January 22, at Beckenham, Kent, the wife of Charles R. Brown, M.D., of a son.

CLARKE.—On January 4, at The Castle, Annotto Bay, Jamaica, the wife of Mycry Clarke, J.P., M.R.C.S. Eng., of a daughter.

IMAGE.—On January 24, at Westgate-street, Bury St. Edmunds, the wife of Dr. Francis Image, of a daughter.

MURRAY.—On January 27, at The Knowle, Brenchley, Kent, the wife of Ivor Murray, M.D., F.R.C.S.E., and F.R.S.E., her Majesty's Surgeon for the colony of Hong-Kong, of twin sons.

PARSONS.—On January 26, at Dover, the wife of Charles Parsons, M.D., of a daughter.

POPE.—On January 26, the wife of Alfred C. Pope, M.R.C.S., of Lee-road, Lee, of a son.

RASCH.—On January 28, at South-street, Finsbury, the wife of Adolph Rasch, M.D., of a daughter.

RUDALL.—On November 18, 1871, at 147, Collin's-street East, Melbourne, Australia, the wife of James T. Rudall, F.R.C.S., of a son.

TRAVERS.—On January 24, at Kensington, the wife of Dr. Travers, of a son.

TURNER.—On January 27, at 30, Margaret-street, Cavendish-square, W., the wife of J. S. Turner, M.R.C.S., of a son.

MARRIAGES.

LING—THOMAS.—On January 23, at Llanboidy, South Wales, William Squire Ling, Surgeon, of Brightlingsea, Essex, to Elizabeth Frances, youngest daughter of the late William Thomas, Esq., of Clase, Morriston, Swansea.

WALKER—ROUGIER.—On January 30, at St. John's Church, Lancaster, Samuel Walker, M.R.C.S.E., of Middlesborough-on-Tees, to Emily Tymms, second daughter of the late William Rougier, Esq., of York.

DEATHS.

BAIRD, WILLIAM, M.D., F.R.S. (of the British Museum), at No. 38, Burlington-road, Westbourne-park, after a protracted illness, on January 27, aged 69.

BLAXLAND, JOHN, Surgeon, at his residence, Collingwood House, Tunbridge Wells, on January 27, aged 51.

BROWNE, BERNARD M., M.R.C.S., formerly of Chudleigh, Devon, and Kew-green, Surrey, at St. George's-terrace, Brighton, on January 28.

DAY, GEORGE EDWARD, M.D., F.R.C.P., F.R.S., late Chandos Professor of Medicine in the University of St. Andrews, at Andersey, Torquay, on January 31, aged 56.

INGLE, THOMAS, M.D., at The Villetta, Emsworth, on January 29, in the 78th year of his age.

INGS, MARY JANE, youngest child of the late John Ings, Surgeon, of Henley-in-Arden, at Bitteswell, Lutterworth, on January 26, aged 23.

MCMASTER, VALENTINE MUNBEE, M.D., V.C., Surgeon, 78th Ross-shire Highlanders, at Belfast, on January 22, aged 37.

PROCTER, THOMAS BENJAMIN, M.D., at The Marsh, Wistanstow, on January 18, aged 71.

RAYNER, WILLIAM, Surgeon, at Uxbridge, after a long and painful illness, of angina pectoris, on January 26, aged 71.

TURNER, ANN, widow of William Turner, M.D., late of Grantham, at her residence, St. Leonard's, Torquay, on January 23, in the 85th year of her age.

YOUNG, GRACE, the widow of Dr. Colin Young, at 100, Lansdowne-road, Notting-hill, on January 26.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental House-Surgeon. Applications and testimonials to the Honorary Secretary, on or before February 14.

DORSET COUNTY HOSPITAL, DORCHESTER.—Honorary Physician. Candidates must be Graduates of some University of the United Kingdom, or be Fellows or Licentiates of the College of Physicians. Applications and testimonials to the Chairman of the Committee, on or before February 7. Election on the 22nd.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—House-Physician. A recognised Medical or Surgical qualification required. Applications to the Medical Committee on or before February 3. Further particulars of the Secretary.

KENT AND CANTERBURY HOSPITAL.—Dispenser and Assistant House-Surgeon. Must be duly qualified and registered. Applications to Mr. T. Southee, on March 15. The duties will commence on March 31.

MARYLEBONE GENERAL DISPENSARY, 77, WELBECK-STREET, CAVENDISH-SQUARE.—Surgeon. Candidates for this appointment are required to be M.R.C.S.E., not engaged in the practice of Midwifery or Pharmacy. Applications and testimonials to the Secretary, on or before February 7.

MIDDLESEX HOSPITAL, W.—Physician. Full particulars may be obtained upon application to Mr. H. M. Evans, Secretary-Superintendent, on or before February 20.

MILE-END OLD TOWN UNION.—Medical Officer for the North District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications to Mr. E. J. Southwell, Guardians' Offices, Bancroft-road, Mile-end, E., on or before February 15.

NORTH WALES COUNTIES LUNATIC ASYLUM, DENBIGH.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. John Robinson, Clerk to the Visitors, on or before February 20.

NOTTINGHAM DISPENSARY.—Resident Surgeon and Assistant Resident Surgeon. Double qualifications necessary. Applications to the Secretary, on or before February 12. Election on the 26th.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to the Secretary, on or before February 6.

WESTMINSTER GENERAL DISPENSARY, GERRARD-STREET, SOHO, W.—House-Surgeon. Must be F. or M.R.C.S.E., not practising pharmacy or midwifery. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTMINSTER GENERAL DISPENSARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY. — House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. M. Norris, on or before March 1. Election on the 7th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Andover Union.—Mr. Fredk. Eldridge has resigned the Third District; area 6124; population 687; salary £20 per annum.

Holywell Union.—Mr. J. H. Wolstenholme has resigned the First Division of the Whitford District; area 9459; population 4490; salary £35 per annum.

West Ward Union.—Mr. Andrew C. Johnston has resigned the Shap District; area 48,640; population 2174; salary £25 per annum.

APPOINTMENTS.

Bedford Union.—George A. Hicks, M.R.C.S. Eng., L.R.C.P. Lond., to the Harrold District.

Belford Union.—Wm. Magill, L.R.C.S. Edin., L.R.C.P. Edin., to the East District.

Blackburn Union.—Albert Louis Peacock, M.R.C.S. Eng., L.S.A., to the Harwood District.

Gainsborough Union.—Richard H. Dawson, M.R.C.S. Eng., L.S.A., to the Newton-on-Trent District.

Guisborough Union.—John E. Chalmers, M.R.C.S. Eng., L.S.A., to the Danby District.

Kendall Union.—John C. Smith, L.R.C.P. Edin., L.F.P. & S. Glasg., to the Burton District.

Keynsham Union.—Henry Skelton, L.R.C.P. Edin., M.R.C.S. Eng., to the Mangotsfield District.

Leighton Buzzard Union.—Charles Etheridge, M.R.C.S. Eng., L.S.A., to the Upper District.

Pateley Bridge Union.—R. S. Veale, M.D. Univ. Edin., L.R.C.S. Edin., to the Eastern District.

Ripon Union.—Wm. E. Ledgard, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

West Firle Union.—Henry C. Holman, M.R.C.S. Eng., L.S.A., to the Third District.

Dr. Cæsar has been appointed Medical Officer of Health in the Mile-end Old Town district, vacant by the death of Dr. Robinson.

Dr. Claremont has been appointed temporarily the Medical Officer at the St. Pancras Infirmary, at a salary of ten guineas a week, *vice* Dr. Ellis, resigned.

The Limehouse Board of Works have resolved to proceed under the "Artisans' and Labourers' Dwellings Act" against the owners of the Houses in Victoria-place, Limehouse, the Medical Officer of Health for the district having reported the houses to be unfit for human habitation.

There is at present an unusually large amount of sickness in Fraserburgh, especially among the younger portion of the community, measles and hooping-cough being extensively prevalent. These maladies, however, seem as yet to have presented a comparatively mild type.

The Board of Trade have declined to accede to the suggestion of the Association of Medical Officers of Health to institute an analytical inquiry into the water-supply of London, which the Association considered to be necessary in view of the probable approach of cholera.

At Guildhall, on Monday, a meeting of representatives of riverside parishes and local boards was held, when the best means of preventing the introduction of cholera into the metropolis was discussed. The arrangements made, it was stated, would secure the isolation of cholera patients arriving in the river, and treatment by an experienced Medical staff.

Hannah Steele, head nurse in the lunatic ward of the Manchester Workhouse, charged with having wilfully murdered Mr. A. Harris, Senior Resident Surgeon at the Workhouse Hospital, by the administration of poison, has been committed for trial.

At the Quarterly Middlesex Session, on Thursday, a petition from the St. Pancras Guardians, praying the Court to support their representations to the Home Office on the subject of the numerous and, as they thought, unnecessary inquests held in the parish on the bodies of paupers, was referred to the Parliamentary Committee, for them to take such steps as they might deem advisable.

It appears, from a minute published by the Council of the Edinburgh University Club, in London—in reply to a statement recently made by the Chancellor of the Exchequer as to the number of those students who came to London after passing the Medical examination at the Edinburgh University—that since 1839, when the degree of Doctor of Medicine was first conferred by the University of London, the names of only fourteen Edinburgh Medical students have been enrolled in its calendar, though thousands of young men have during that time received their education in the University of Edinburgh.

Mr. Darwin's name has been placed first on the list for the forthcoming election at the French Academy of Sciences of a Corresponding Member in Zoology.

An application was made by the Sanitary Inspector of St. George's-in-the-East, on Monday, to the magistrate at the Thames Police-court for an order to remove a dead body in the district. The Inspector said he went to No. 5, Blacksmith's Arms-place, St. George's, and discovered four persons and the deceased in a small room. It was enough to breed a pestilence in the neighbourhood. The magistrate said he had no power to order the removal of the body, but the coroner had, and he had no doubt if there was any trouble in the matter the police would protect him in the discharge of his duties.

College of Surgeons Examinations.—The following are copies of the Surgical and Medical papers submitted to the candidates for the diploma of Membership of the Royal College of Surgeons at the examinations just concluded:—1. What are the causes of acute synovitis? Mention the symptoms pointing out those which are diagnostic of each variety; and describe the pathological changes and treatment. 2. Supposing a man to be stabbed in the medial line of the abdomen, midway between the ensiform cartilage and the umbilicus, and the instrument to pass straight to the spine, mention in order the parts likely to be pierced. 3. Diphtheria: Its nature, symptoms, complications, and treatment. 4. Describe the different methods and means that have been recommended in the treatment of cases of apnœa from drowning. 5. What are the symptoms, course, results, and treatment of gonorrhœal ophthalmia? 6. Describe the course and relations of the internal jugular vein on both sides of the neck; what veins open into it?—1. A young woman is seized with pain in the abdomen, which you diagnose to be due to peritonitis. Why do you come to this conclusion? State under what circumstances the attack might occur, and what would be your treatment? 2. A patient has dropsy, which you believe to be due to mitral regurgitation. What are the signs and symptoms which lead you to this opinion? How do you treat the case? If the patient should die, state briefly the post-mortem appearances of the principal organs. 3. Write prescriptions in full for the following complaints:—Bronchitis, diarrhœa, chlorosis, gastrodynia, chorea, eczema.

Professor Wilson, F.R.S.—The following is the syllabus of the course of lectures which this gentleman commences this day (Friday) in the theatre of the Royal College of Surgeons, at four o'clock, viz.:—*Common Inflammation of the Skin.*—Review of the past; groundwork of investigation; foundation of inquiry; first principles; physiology, pathology, diagnosis. Summary of the nature of eczema; illustrations of eczema; new models of eczema. Lichen planus; signification of the term "lichen." General characters of eczema. *Erythematous Affections* (their general pathology; special forms.)—Erythema: fugitive, fixed, migratory, and tumescent forms; therapeutical indications; erythema arsenicale, erythema copaibicum, erythema pellagrosum, erythema porphyricum. Erysipelas: pathological phenomena; therapeutical indications. Urticaria: pathological phenomena; therapeutical indications. Therapeutical diagnosis of eczemata and erythemata; therapeutical treatment of the erythemata. *Phlyctenous Affections* (pemphigus and herpes).—Pemphigus: pathology of; pemphigus iris; pemphigus vulgaris. Herpes: signification of the term; pathology of herpes; herpes zoster. Therapeutical indications of the phlyctenous affections. *Furunculous Affections* (their general pathology).—Ecthyma; hordeolum; furunculus; anthrax. Therapeutical indications. *Traumatic Affections*—extensive and varied range of the group; pathological effects of arsenic; arsenical ulcer; pathological effects of the coal-tar pigments. Adenoma, from cutaneous irritation. *Specific Inflammation of the Skin.*—Exanthematous affections: rubeola, scarlatina, variola. Syphilous affections: general pathology; erythematous syphilis; papulous and tuberculous syphilis; pustulous and ulcerous syphilis; degenerative syphilis. Radesyge—syphilis of the tongue; syphilis of the hair. Therapeutical treatment of syphilis.

Mr. D. W. Crompton, F.R.C.S. Eng.—Some friends and admirers of this gentleman having had his portrait painted, as a permanent record of his long and valuable services to the General Hospital, Birmingham, presented it to the Weekly Board, upon which they passed the follow resolution:—"That this Board, on behalf of the Governors of the General Hospital, accept with great pleasure the portrait of D. W. Crompton, Esq., late Honorary Surgeon, and now Consulting Surgeon, to this Institution. The Board desire to

tender their best thanks to Mr. George Whateley, and the other friends and admirers of Mr. Crompton, for so valuable a gift; and they have much pleasure in complying with the wish of the donors, by giving to the portrait of one so deservedly esteemed a local habitation among the worthies who already grace the walls of the Board-room."

CHELSEA HOSPITAL FOR WOMEN.—This new institution is just opened at Markham House, King's-road, and is intended chiefly for respectable women of "limited incomes," who are unable to bear the expense of Medical attendance and nursing in the case of their being affected with internal disease. The number of beds for such patients in the existing Hospitals is quite insufficient for purposes of charity or of science; and much as may be said against special Hospitals, there can be none against giving a temporary asylum during sickness to that class of the community which is above all to be pitied—genteel poor women. Dr. Barnes and Mr. Curling form the consulting, and Drs. T. Chambers and Aveling the ordinary Medical staff.

SCHOLARSHIPS AND EXHIBITIONS FOR NATURAL SCIENCE AT CAMBRIDGE IN 1872.—The following is a list of the Scholarships and Exhibitions for proficiency in Natural Science to be offered in Cambridge during the present year:—

Trinity College.—One or two of the value of about £80 per annum. The examination will be on April 5, and will be open to all undergraduates of Cambridge and Oxford, and to persons under 20 who are not members of the Universities. Further information may be obtained from the Rev. E. Blore, Tutor of Trinity College.

St. John's College.—One of the value of £50 per annum. The examination (in chemistry, physics, and physiology, with geology, anatomy, and botany) will be on April 12, and will be open to all persons who are not entered at the University, as well as to all who have entered and have not completed one term of residence. Natural science is made one of the subjects of the annual College examination of its students, at the end of the academical year, in May; and Exhibitions and Foundation Scholarships will be awarded to students who show an amount of knowledge equivalent to that which in classics or mathematics usually gains an Exhibition or Scholarship in the College. In short, natural science is on the same footing with classics and mathematics, both as regards teaching and rewards.

Christ's College.—One or more, in value from £30 to £70, according to the number and merits of the candidates, tenable for three years and a half, and for three years longer by those who reside during that period at the College. The examination will be on March 19, and will be open to the undergraduates of this College, to non-Collegiate undergraduates of Cambridge, to all undergraduates of Oxford, and to any students who are not members of either University. The candidates may select their own subjects for examination. There are other Exhibitions, which are distributed annually among the most deserving students of the College.

Caius College.—One of the value of £60 per annum. The examination will be on March 19, in chemistry and experimental physics, zoology, with comparative anatomy and physiology, and botany, with vegetable anatomy and physiology. It will be open to students who have not commenced residence in the University. There is no limitation as to age. Scholarships of the value of £20 each, or more, if the candidates are unusually good, are offered, for anatomy and physiology, to members of the College. Gentlemen elected to the Tancred Medical Studentships are required to enter at this College. These Studentships are four in number, and the annual value of each is £113. Information respecting these may be obtained from B. J. L. Frere, Esq., 28, Lincoln's-inn-fields, London.

Clare College.—One or more of the value of £50 per annum. The examination (in chemistry, chemical physics, comparative anatomy and physiology, and geology) will be on March 19, and will be open to students intending to begin residence in October.

Downing College.—One or more of the value of £40 per annum. The examination (in chemistry, comparative anatomy and physiology) will be early in April, and will be open to all students not members of the University, as well as to all undergraduates in their first term.

Sidney College.—Two of the value of £40 per annum. The examination (in heat, electricity, chemistry, geology, physiology, and botany) will be in October, and will be open to all students who may enter on the College boards before October 1.

Emmanuel College.—One or more of the value of £40 to £60 per annum. The examination on March 19 will be open to students who have not commenced residence.

Pembroke College.—One or more of the value of £20 to £60, according to merit. The examination in June, in chemistry, physics, and other subjects, will be open to students under 20 years of age.

St. Peter's College.—One from £50 to £80 per annum, according to merit. The examination, on April 4, in chemistry, comparative anatomy and physiology, and botany, will be open to students who will be under 21 years of age on October 1, 1872, and who have not commenced residence.

Although several subjects for examination are in each instance given, this is rather to afford the option of one or more to the candidates than to induce them to present a superficial knowledge of several. Indeed, it is expressly stated by some of the Colleges that good clear knowledge of one or two subjects will be more esteemed than a general knowledge of several. Candidates, especially those who are not members of the University, will, in most instances, be required to show a fair knowledge of classics and mathematics, such, for example, as would enable them to pass the Previous Examination. There is no restriction on the ground of religious denomination in the case of these or of any of the Scholarships or Exhibitions in the Colleges or in the University. Further information may be obtained from the tutors of the respective Colleges. It may be added that Trinity College will give a Fellowship for natural science once, at least, in three years; and that most of the Colleges are understood to be willing to award Fellowships for merit in natural science equivalent to that for which they are in the habit of giving them for classics and mathematics.

A LUNATIC ASYLUM IN BELGIUM.—The proposal which was recently made in the Belgian House of Representatives, that madhouses should be placed under supervision, was suggested by the abuses that were found to exist at the establishment of Evére. This institution is situated in the environs of Brussels. Towards the close of the year the authorities made an impromptu visit there, and the result of their investigation was most unsatisfactory. The disclosures of cruelty and mismanagement have excited great indignation at Brussels, and the Government has ordered the immediate closing of the establishment.

MUSÉUM D'HISTOIRE NATURELLE DE PARIS.—The Professors have, by a majority of two, voted for the maintenance of the Chair of Palæontology, vacant through the death of M. Lartet, and the continuance of which has been seriously threatened. Suppress the only public Chair of Palæontology which exists in the country of Cuvier! We can scarcely comprehend how such questions can be raised, and seriously discussed.—*Revue Scientifique*, January 13.

THE CONCOURS FOR AGRÉGÉS OF THE PARIS FACULTY.—There are seventeen candidates for the seven vacancies in the Section of Medicine. The jury is composed of five Professors of the Faculty (MM. Tardieu, Chauffard, Gubler, Hardy, and Vulpian), an *Agrégé* (M. Jaccoud), and a Member of the Academy of Medicine (M. Roger). No one can complain of such a jury, but the mode of choosing the juries is very objectionable. This is in the hands of the Minister of Public Instruction, on the designation of the Inspector of Medical Studies (M. Dénonvilliers). How much better would it be that the Faculty, the *Agrégés*, and the Academy of Medicine should respectively choose the members, who would thus acquire more weight, and be independent of all Ministerial connexion. It is a liberal reform, of incontestable utility, and one easily effected.—*Revue Scientifique*, January 13.

TO MEDICAL MEMBERS OF THE FRENCH NATIONAL ASSEMBLY.—Twenty-two Medical men, who are Deputies, have, on the proposition of M. Roussel, formed themselves into a Medico-Political Society, which meets every Monday. At their first meeting they chose Professor Bouisson, of Montpellier, as President, and M. Mahy, of the Ile de la Réunion, as Secretary. The principal object the Society has in view is to submit to a preliminary discussion all subjects involving Medical interests that are likely to be brought before the Assembly, and in legislating on which Medical science may prove of great utility. The first topic to be treated of is "Medical Assistance in the Country:" and "Drunkenness," "Hospital Administration," "Medical Education," etc., will follow.—*Gaz. Méd.*, January 27.

DETACHMENT OF THE PERIOSTEUM IN GUNSHOT WOUNDS.—M. Desprès, reporting on some cases of gunshot wounds to the Society of Surgery, called attention to the great detachment of periosteum at a distance from the fracture which sometimes takes place, and which he attributes to the concussive action of the ball on the bone, but which others refer to the effusion of blood near the seat of fracture. How-

ever this may be, extensive consecutive necroses take place, which may be followed by extensive reproduction of bone. Such detachment easily and almost completely takes place in spite of there being a great number of splinters, and constitutes an additional reason in favour of the precept of never amputating for a comminutive fracture of the leg or arm, however numerous the fragments may be, providing the arteries and nerves are not seriously damaged.—*Union Méd.*, January 27.

BREAD MADE WITH SEA-WATER.—M. Rabuteau calls attention to the importance of this article. In the first place it is very pleasant eating, also increasing the appetite and stimulating digestion. On board ship bread so prepared has been found very conducive to the preservation of health during long voyages. It also exerts important medicinal effects, especially in dyspepsia. In phthisis and in scrofula the author states it is a powerful adjuvant.—*Union Méd.*, January 6.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. W. Yeats, M.B.—Your paper has been received, and shall appear shortly.

The late Robert Wade, F.R.C.S.—We are requested to correct an inaccuracy which crept into our obituary notice of Mr. Wade. He died at the age of 74, not at "84," as stated last week.

Packm ir'a.—We have the greatest pleasure in comp'ying with your request. The work referred to has been looked out, and the reference shall be added in the proper place.

A Parish Surgeon.—About the middle of June, at the College of Surgeons. The fee is £2. Write to the Secretary for the Regulations, which will give you the subjects of the examination.

Mr. J. Reed, Pentridge.—Your letter, with enclosure, has come safely to hand. The numbers lost at sea will be forwarded by next mail. Dates as follows:—September 9, 16, 23, 30, October 7, 1871. If more are required, please advise us.

AN ETYMOLOGICAL QUERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—There are two words, I presume of Greek origin, which puzzle me much. One is *myringitis*, which signifies the same as tympanitis; the other is *spagyric*, used in the seventeenth century to signify remedies new and chemical, not old and Galenical. Please tell me *unde derivantur*.

I am, &c., TYRO.

Melbourne.—On a perusal of the evidence adduced in the case of Turner *v.* Van Hemert, we cannot think that the jury arrived at a perfectly just verdict. It is clear that the case was beset with some difficulties, and the plaintiff suffered from causes beyond the reach of the skill of the Surgeon. We regret that the Supreme Court refused a new trial, because it is probable that a further inquiry might have tended to elucidate more fully the facts of the case. It is proverbial that "Doctors differ," but it is an axiom of law to make all doubts tell in favour of the defendant. It must be some consolation for him to know that he is supported by his Professional brethren in Victoria. We quote the following from the *Melbourne Argus*:—

"A largely attended meeting of the members of the Medical Society of Victoria took place (November 29 last) at the hall of the Royal Society, to consider the recent action of Mrs. Turner *v.* Van Hemert, tried some few days since at the Supreme Court, and the result of which was that Mr. Van Hemert, a Medical Practitioner at St. Kilda, was heavily cast for damages (which, with costs, made up £700), for alleged unskilful treatment of the plaintiff's leg. Professor Halford, President of the Society, took the chair, and, together with several of the leading Surgeons and Physicians of Melbourne, expressed a strong opinion that Mr. Van Hemert was by no means to blame. Resolutions were then passed, declaring that a wrong verdict had been given, expressing regret that a new trial had not been allowed, proffering sympathy with the defendant, and finally appointing a committee for the purpose of calling a general meeting of the Profession to organise a fund to recoup the defendant's losses."

KILLING NO MURDER.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—With your permission, I would supplement a former communication with a few additional remarks. Being merely one in the ranks of the Profession, with no "*stat nominis umbra*" as the badge of a superior, I can only plead the interest I feel in what concerns the rights of humanity, justice, and truth in matters relating to Professional influence on questions of insanity. That the cases of Watson and Edmunds have much engaged public attention cannot be denied, as well as the influence of our Profession in abating and commuting the sentence of the law so as to make virtually, in a responsible sense, "killing no murder." That the reverses of Mr. Watson, and probable domestic irritations, made him under passion rush upon the outrage of murder would appear clear; but where was the insanity? That Miss Edmunds, unsuspected, and exhibiting at middle-age (up to it) no evidence of insanity, artfully contrives the deaths of others, and takes every care to elude detection, should also, with Mr. Watson, obtain the same clemency—again may be asked, Where was the insanity? I should be sorry, with all humane persons, to advocate Draconian laws to meet crime; but there are many, like myself, who think that, until capital punishment may be done away with, philanthropists and Doctors are somewhat apathetic in interesting themselves so charitably for the perpetrators of mischief, and paying so little attention, at the same time, to the unfortunate victims and their sorrowing relatives and friends.

But what, may be reasonably and justly asked, should be insanity in respect of murder or crime according to law? Irresponsibility, or responsibility, can be the only answer, and this, of course, must involve investigation of the particular case. A reckless and wanton man—from habits of drink or the indulgence of passion—commits murder. Everybody adjudges him guilty; but if hereditary taint be hinted at, and proved, then comes forth (too often, we think) some learned member of our Profession to the rescue. A drunken or vicious man may become insane, his mental condition may have been much influenced by hereditary taint, and then he is fairly open to legal consideration, although I think, under the Divine law, if he may not have resisted serious and growing propensities of evil, he may be held responsible.

I would further beg leave to observe, although I would not disparage learned Doctors who have written on insanity, and who preside over asylums, and who may in consequence contend for their better title to diagnose and treat insanity, yet, as they cannot explain that mechanism of brain connected with mind, I contend that they are as much outside the interior of the subject as other well-educated men, and that they, therefore, can only be custodians of the insane, and advisers and guardians of their general health. I am, &c.,

Nailsworth, January 29. THOMAS STOKES.

Health of Marylebone.—Dr. Whitmore, in his monthly report on the health of Marylebone during December last, makes the following observations on sewer ventilation and sewer flushing:—

"It has struck me as a singular omission that although the writers of the numerous letters which have recently appeared in the *Times*, on the subject of 'Sewer Ventilation,' are very fertile in expedients for carrying off the poisonous gases from our sewers, it has occurred to none of them to suggest that a possible mode of overcoming the difficulty would be by getting rid of the fetid deposits which generate them. 'Remove the cause and the effect will cease,' is a trite axiom, and I cannot help thinking that if a well-devised system of sewer flushing were resorted to at frequent intervals, it would be found that the present method of ventilation by air gratings would be sufficient for all sanitary requirements. How this is to be efficiently done must, of course, be a subject for the consideration of sewer engineers, but that it can be done, and that it has frequently been done in this parish, I myself can testify. I have instructed the inspectors, in their future sanitary inspections, to examine the waste water-pipes in cisterns and other water receptacles. It has been recently discovered that in many of the largest and best-appointed houses in the parish these pipes enter directly into the house-drains or closet-pipes, and are not trapped: the consequence is, that foul and poisonous gases ascend through them, to be absorbed by the water in the cistern, if the cistern be covered, or if not, then to find their way into the house, and invariably into those rooms where fires are burning. In either case injury to health, and possibly an outbreak of fever, may be the result; it is therefore of the highest importance that every householder should at once examine his waste water-pipes, and if he finds them connected with either the drains or closet-pipes, he should at once sever such connexion, regardless of whether they are trapped or not, and allow the overflow from the water receptacle to run down upon the area pavement, or anywhere rather than directly into the drain. The ventilation of house-drains and closet-pipes requires to be carried out with considerable care and judgment; there is no doubt considerable risk and danger in keeping foul air pent up in the drains and closet-pipes, but to discharge it, except at a considerable distance from the house, would be attended with equal danger, unless it could be previously disinfected with charcoal, or in some other mode equally efficacious. Where the height of a house admits of it, the foul air can be allowed to escape through a pipe which passes upwards to some little distance above the roof, but where this is not practicable the advice of a competent person should be first taken."

THE YOUNG FAMILY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Our Profession has boasted of several eminent members of the name of Young. There was, for instance, of late a Surgeon in Sackville-street of some eminence, and brother to Sir Charles Young, Garter King-at-Arms. These were, I believe, sons of a Dr. Young, an eminent Physicist, and Physician to St. George's Hospital. There is a very interesting book now in circulation, "The Memoirs of Charles Mayne Young," in which it is stated that his father was an eminent Surgeon and Anatomist in London at the end of the last century; and that his brother, George Young, made £8000 a year as a Surgeon, and retired early in life with a fortune of £60,000. Can any of your genealogical readers tell me whether any connexion existed between these two families? I am, &c., X.

PHTHISIS IN MELBOURNE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—For the third consecutive month, I send you the usual list of deaths (exclusive of natives) that have taken place in the Melbourne Hospital during the month (as published for the outgoing mail summary by the *Argus* of this date), for the purpose of enabling you to determine for yourself whether or not my statement of the extent of the prevalence of phthisis here is borne out by authenticated facts. Of a total mortality in the Hospital for the month of twenty-seven deaths from all causes—that is, exclusive of natives—there were six ten from phthisis, or nearly 60 per cent. In Melbourne and suburbs during the same period there was a total mortality from all causes, at all ages, of 280, of which number forty-two were from phthisis, the ratio being exactly 15 per cent. The Registrar's returns are not yet out, but I have ascertained particulars at the office, and will forward the tables by next mail. I trust you will excuse my thus troubling you, should you not consider the importance of the question somewhat justifying it. It will be unnecessary to send you any more of these monthly reports, sufficient having been shown in vindication of their impugned veracity. In a few weeks more the census papers will be completed, when, as already promised, I shall finish the analysis and forward the result.

South Yarra, November 6, 1871. I am, &c., WILLIAM THOMSON.

COMMUNICATIONS have been received from—

A Parish Surgeon; Dr. Arding; Mr. Halliwell; Dr. Nicholls; Dr. Foster Smith; Dr. Rogers; Mr. F. P. Staples; Mr. Stokes; Mr. J. T. Rudall; Mr. F. J. Reilly; Mr. W. W. Reeves; Dr. McKechnie; Dr. Albis; Mr. Yeats; Dr. Balfour; Dr. Caton; Mr. C. Woodcock; Dr. J. D. Adams; Dr. Lyon Playfair; Mr. T. M. Stone; Mr. J. A. Wanklyn; Dr. Seaton; Mr. F. A. Mahomed; Dr. C. J. B. Williams; Mr. J. Chatto; Dr. J. Matthews Duncan; Dr. R. H. Collyer; Dr. Phillips; Mr. Henry Smith; Mr. W. G. Wade; Mr. G. Wait.

BOOKS RECEIVED—

Urbain-Dubois' Household Cookery Book—Report of the Tenby Cottage Hospital—The Life of Thomas Geeran, a Centenarian—Rindfleisch's Text-book of Pathological Histology.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature — Pharmaceutical Journal — Chelmsford Chronicle—Gardener's Chronicle and Agricultural Gazette—Melbourne Herald—Melbourne Age—Melbourne Argus—Manchester Courier—Monthly Microscopical Journal—Medical Press and Circular—Monthly Homœopathic Review—Food, Water, and Air—Hardwicke's Science Gossip—Canada Lancet.

APPOINTMENTS FOR THE WEEK.

February 3. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakespeare's Time."

5. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Third Lettsomian Lecture, by Dr. Habershon—"The Bile and the Bile-duets."

Anthropological Institute, 8 p.m. Anniversary Meeting.

Royal Institution, 2 p.m. General Monthly Meeting.

6. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædie, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Mr. Christopher Heath, "Fibro-cystic Tumour of the Lower Jaw." Dr. King, "Aneurism of the Aorta perforated by a Fractured Rib, and associated with Embolism of the Middle Cerebral Artery." Dr. Thorowgood, "Biliary Calculus." Mr. Jabez Hogg, "Madura Foot." Dr. Moxon, "Subacute Yellow Atrophy of the Liver;" "Expansion and Softening of small Grey Tubercle." Dr. Nunneley, "Congenital Occlusion of the Hepatic Ducts." Dr. Greenhow, "Embolism and Softening of the Left Anterior Cerebral Lobe: Aphasia."

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

7. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Phillips, "On Retroflexion of the Uterus as a frequent Cause of Abortion." Dr. Bantock, "On the Use of the Sponge Tent in Menorrhagia." And other Papers.

Royal Microscopical Society, 8 p.m. Anniversary Meeting.

Society of Arts, 8 p.m. Meeting.

8. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

9. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Adjourned Discussion on Mr. Cooper Forster's Paper "On the Treatment of Popliteal Aneurism." Mr. Hulke, "On the Therapeutic Value of Condurango as a reputed Cure for Cancer." Mr. De Morgan, A supplemental paper on the same subject. Mr. Bryant, "Two Cases of Recto-vesical Fistula successfully treated by Colotomy."

Quekett Microscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

Royal Institution, 9 p.m. Prof. Humphry, F.R.S., "On Sleep."

VITAL STATISTICS OF LONDON.

Week ending Saturday, January 27, 1872.

BIRTHS.

Births of Boys, 1182; Girls, 1135; Total, 2317.
Average of 10 corresponding weeks, 1862-71, 2153·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	814	788	1602
Average of the ten years 1862-71	809·9	801·2	1611·1
Average corrected to increased population	...	...	1772
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	7	1	2	13	...	...	1	...
North ...	751668	44	16	4	2	28	4	6	2	2
Central ...	333887	8	2	...	...	10	...	...	2	1
East	638928	18	9	3	1	18	1	1	1	3
South	966132	17	7	11	2	29	2	7	1	6
Total	3251804	90	41	19	7	98	7	14	7	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·133 in.
Mean temperature	42·6°
Highest point of thermometer	50·5°
Lowest point of thermometer	34·6°
Mean dew-point temperature	39·8°
General direction of wind	N.E. & S.W.
Whole amount of rain in the week	1·18 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, January 27, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Jan. 27.	Deaths Registered during the week ending Jan. 27.	Temperatur of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2317	1602	50·5	34·6	42·0	5·56	1·18	3·00
Portsmouth ...	115455	12·1	80	35	53·8	28·2	42·6	5·89	1·89	4·80
Norwich	81105	10·9	53	70	48·8	33·0	41·1	5·06	0·87	2·21
Bristol	186428	39·8	152	113	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	51	49	46·2	29·1	38·7	3·72	1·87	4·75
Birmingham ...	350164	44·7	272	141	47·6	31·1	39·6	4·22	2·12	5·38
Leicester	99143	31·0	72	36	48·0	30·5	40·3	4·61	1·50	3·81
Nottingham ...	88225	44·2	59	56	48·8	28·4	38·5	3·61	1·33	3·38
Liverpool	499897	97·9	373	316	48·6	28·4	41·1	5·06	0·99	2·51
Manchester ...	†352759	78·6	278	239	48·3	28·0	39·8	4·33	0·79	2·01
Salford	127923	24·7	110	80	48·5	27·9	39·7	4·28	0·98	2·49
Oldham	84004	20·2	63	50	...	...	...	...	...	...
Bradford	151720	23·0	116	62	48·0	30·5	40·7	4·83	1·24	3·15
Leeds	266564	12·4	206	150	48·0	29·0	39·9	4·39	1·06	2·69
Sheffield	247847	10·9	189	167	46·1	26·5	38·6	3·66	1·66	4·22
Hull	124976	35·1	65	52	47·0	29·0	39·9	4·39	0·95	2·41
Sunderland ...	100665	30·4	67	61	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	83	74	50·0	33·0	41·2	5·11	1·17	2·97
Edinburgh	205146	46·3	149	134	48·0	23·0	36·7	2·61	1·10	2·79
Glasgow	489136	94·8	382	301	45·9	30·0	38·8	3·77	0·50	1·27
Dublin	310565	31·9	156	215	51·5	27·0	39·2	4·00	0·69	1·75
Total of 21 Towns in United Kingd'm	7391345	34·0	5353	4001	53·8	23·0	39·9	4·39	1·22	3·10

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·13 in. The highest was 29·77 in. at the end of the week, and the lowest 28·21 in. on Wednesday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,099, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the corrected number for 1871.

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,, Battley & Watts.	,, Evans, Lescher, & Evans.	,, Hodgkinsons, Stead, & Treacher	Messrs. Wright, W. V., & Co.
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ZYMOTIC DISINFECTING FLUID

Prevents the spread of infection; protects the nurse and those about the sick-room. Sponging over the body with the Fluid disinfects the emanations from the skin and (being volatile) exhalations from the lungs of the sufferer. Destroys the noxious properties of the excretions, and purifies the atmosphere.

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From the "Lancet," Dec. 18, 1869.

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ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture III.

The Administration of Liquids, Food, and Stimulants in the Febrile State.

Liquid.—During the feverish state there is usually much thirst, and patients crave for drink. Considerable quantities of fluid may be taken with apparent advantage, and, at least in the majority of cases, the yielding to the desire for cool liquids seems to do no harm. I have known many patients take more than twelve pints of fluid in the twenty-four hours. Broth is probably of use in fever, mainly on account of the water it contains, and the same remark is applicable to much of the beef-tea that is given, as well as to the diluents in favour. In cases, however, in which the stomach is distended and the abdomen tympanitic the Physician should not permit a very large amount of fluid to be swallowed. Sometimes, even when taken in very small quantities, the fluid is not absorbed, and by accumulating in the bowels stretches their coats, and thus paralysis of their peristaltic action may be occasioned. I have known a strong man destroyed in the course of twenty-four hours in consequence of paralysis of the muscular coat of the intestine, the cavity of which was found after death to be enormously distended with liquid.

In dieting a fever patient the actual quantity of fluid which is to be given should always be carefully stated. From two to four ounces an hour is a good allowance, and more than sufficient in most cases; but this proportion is often greatly exceeded, particularly in Hospital practice—many a patient during the twenty-four hours taking as much as two pints of milk, about the same quantity of beef-tea, besides water almost *ad libitum*. And in the majority of cases this free swallowing of liquid does not seem to be disadvantageous. The liquid is absorbed as fast as it is introduced, and the greater part soon escapes from the blood as perspiration; some, however, passes off in the breath, and a considerable proportion is excreted by the kidneys—the activity of these organs often increasing considerably after the first few days in cases where the malady runs a short and favourable course.

In all forms of fever it is important to prevent the patient from drinking considerable draughts of cold water, milk, or other fluid; but small quantities even of ice-cold water given at intervals of half an hour or more do no harm, and are extremely grateful to the patient. By the frequent introduction of small proportions of fluid (one or two teaspoonfuls) the blood is diluted. the solution of the noxious materials formed during the feverish state is effected, and the removal of these by the skin and kidneys promoted.

Food to be given during Fever.—Although in the feverish condition, by the free action of the secreting organs, the state of the blood may be much improved, and the nutrient fluid rendered more fit to traverse the vessels, it must be obvious that, unless new materials be introduced to compensate for those removed, the nutritive powers of the blood will fail, and the patient may die from sheer exhaustion. Hence it is very necessary to consider how food may be given without causing derangement of the digestive organs, and what kind of nutritious matter is most suitable under the circumstances.

It is of great importance that the nutritious matters given in fever should be such as will be not only readily absorbed, but quickly assimilated—matters capable of being taken up and applied to nutritive purposes without undergoing those slow preliminary changes which are requisite to convert the less soluble constituents of ordinary-health diet into a fit state for nourishing the tissues. In fever the solvent secretions are not only very scanty, but their properties are altered. The saliva, the gastric juice, the bile, and the pancreatic fluids are all defective, and the organs which secrete these important solutions, as well as the numerous glands in every part of the digestive tract, are seriously affected, and their action impaired. For these reasons great care should be taken in the selection of the food, and the utmost precaution exercised in preventing the patient from having any particles not likely to be readily digested, or anything that has commenced to undergo the slightest putrefactive change. In hot weather the nurse should be particularly observant on the latter point, for the most digestible foods very soon undergo decomposition, and sometimes good beef-tea will be tainted in a single night. For this reason it is important not to use the patient's sick-room as a larder, the air of which, irrespective of its temperature, is prone to hasten putrefactive decomposition, and is no doubt loaded with germs of fungi ready to multiply.

As I have already suggested, in the slightly feverish condition, the treatment of which is now under consideration, little food is really required. Mutton broth, weak beef-tea, camomile tea, and infusion of many herbs (some of which are undoubtedly nauseous enough) have been very strongly recommended for their curative properties; but their efficacy is mainly dependent upon the quantity of water they contain, as has been already mentioned. But, on the other hand, the Physician must never forget that in many very bad cases of fever in which nutrient matter is much required little can be taken, and life may be thereby endangered. The patient not unfrequently rebels against every kind of food, and if any be swallowed, distressing vomiting is immediately excited, or the food accumulates in and distends the stomach, doing harm in many ways. Under these circumstances, we have in some cases to feed the patient by enemata, while in others we may rely for a time almost entirely upon stimulants of some form or other, until the state of the stomach improves. But it will be more convenient to consider the question of giving stimulants in low feverish conditions under the head of alcoholic treatment.

Occasionally every kind of food is spat out forcibly as soon as it is taken into the mouth, and unless the nurse displays good judgment and care, this rejection becomes a habit, and in very bad cases is continually repeated while the patient remains in a half delirious or even totally unconscious state. When this troublesome symptom is first noticed, it is better to change the food. Milk alone may be offered, or iced milk, or even pure water only, for a time given.

Whenever it can be obtained, well-made beef-tea, made from fresh beef, should be tried. The "essence of beef" (sold by Brand and Co., Little Stanhope-street, Hertford-street, Mayfair) is a most valuable preparation, and almost always liked by patients. It may always be obtained quite fresh, and can be forwarded daily into the country. This most excellent preparation for invalids should not be kept more than three days in winter, or two in summer. Next to these freshly made essences may be mentioned the extracts of meat which are now largely sold. During the last few years Liebig's extract has much improved in quality; and the meat extracts made by Messrs. Whitehead are extremely good. A very palatable form of beef-tea is made by merely adding boiling water to two teaspoonfuls of Liebig's extract, placed in a tea-cup. In some cases it is necessary that whatever is given should contain very little salt; for, in consequence of numerous cracks upon the tongue, and the presence of little superficial sores in different parts of the mucous membrane of the mouth, this substance causes great pain, and sets the patient against food. The fresh beef-tea and Brand's essence contain much less salt than the inspissated extracts. Some forms of solid beef-tea also are made without any salt being added.

In the treatment of all febrile diseases we must never lose sight of the fact that the action of the stomach, like that of other organs of the body, is much deranged. Should the stomach be irritable, ice, a little dilute hydrocyanic acid and soda, and other remedies may be tried. Although in slight cases there is usually no harm in yielding to the patient's disinclination to take food, this must certainly not be permitted during the early period of any of those febrile diseases which we know will probably last for many days; and even in the mildest attacks the convalescence is often much reduced in dura- if only the patient can be fed during the whole period of the malady. In long and severe cases the regular introduction of small quantities of nutritious, easily digestible food at short intervals of time is most important. At the least two or three tablespoonfuls of good strong beef-tea or milk should be given every two, three, or four hours, or one tablespoonful at much shorter intervals if the case is a bad one. If we try the experiment of treating an ordinary cold, when there is complete loss of appetite, with good beef-tea or soups, with a little wine administered every three or four hours, and then on another occasion try the starving process, we shall be able to decide, by studying the effects upon our own organism, which plan is the more efficacious. In many very slight

cases of fever only a moderate quantity of food is required. The brod-suppe and butter-suppe of the Germans may be given, and the patient will do perfectly well. In fact, the principal of treatment often adopted in such slight cases is that of giving diluents; for weak beef-tea, etc., consists almost entirely of water, and it would be absurd to suppose that the very small quantity of solid matter contained therein really compensates for the material removed from the body by the secreting organs. We know, indeed, that it does not, and that the patient loses weight, and loses weight fast. In a short time the feverish state passes off; the secreting organs begin to act again freely; the salivary glands and the stomach resume their function; healthy secretions are produced in considerable quantity; the nutrient constituents of the food are freely dissolved; and the loss of tissue which had occurred during the feverish period of the malady is speedily repaired, and not unfrequently more than repaired—for it is not unusual to find that for some time after a patient has recovered from a feverish attack, he improves in health, and becomes stronger and more robust and vigorous than he had been at any antecedent period of life.

Milk is one of the most valuable forms of food, not only in cases of low fever, but in almost all forms of disease. Sometimes it is desirable to dilute the milk with an equal quantity of water. If there should be nausea or sickness it may be iced, and a few drops of hydrocyanic acid may be added. If a little *lime-water* or a few drops of *liquor potassæ* be mixed with milk it will often be retained, even though the stomach be in a very irritable state. There is no objection to mixing ammonia and other medicines with the milk, and any wine or brandy to be given may be added to it. In the case of sick children, milk is by far the best article of diet, and oftentimes the only one which can be successfully used as a vehicle for the administration of medicine.

During the last few years we have had the advantage of being able to employ the concentrated Swiss milk, which, when properly diluted, is a most pleasant drink, and perhaps less liable to cause sickness than ordinary fresh milk. In some cases, however, milk is altogether refused. Whey, from which the curd has been separated, may be tried; but if this does not suit, we must depend upon simple nutritious soups, eggs cooked in various ways, beef-tea, and the extracts of meat already referred to.

The digestion of milk and all animal soups is promoted by putting into each cupful three or four grains of pepsin. If a mixture of beef-tea and pepsin be allowed to stand in front of the fire for a couple of hours, artificial digestion will have commenced, and if for a somewhat longer time, it may have been completed, and the fluid will be in a state favourable for absorption, the weakened digestive power of the stomach not being taxed in any way whatever. The solvent action of the pepsin is much increased by the addition of from ten to twenty drops of dilute hydrochloric acid. The casein, which in the case of milk may remain undissolved, may be strained off with some of the oily matter. Phosphoric acid or lactic acid may be also employed; but these act less powerfully.

For many years past I have been in the habit of adding *pepsin and hydrochloric acid* to the beef-tea that is given in very bad cases of fever, and I am sure with the greatest advantage. The stomach is relieved, and a comparatively large amount of nutrient matter digested and absorbed within a given time. By this plan the tympanitic state of abdomen, which is sometimes so distressing, is relieved in the course of a few hours, and its recurrence prevented during the illness.

The pepsin used for this purpose, and generally employed by me in medicine, is prepared according to the plan I devised more than fifteen years ago; and as the process is but little known, although simple, it will, I think, be practically useful to give an account of it in this place.

Pepsin of the Pig.

On the Preparation of Pure Digestive Powder or Pepsin from the Pig's Stomach.—Various chemical processes more or less complicated have been employed in the preparation of pepsin. Partly in consequence of these being tedious and difficult of performance, and the results uncertain, and partly from the sale of perfectly useless preparations, the remedy has to some extent lost its reputation. Many years ago, when engaged upon some experiments on artificial digestion, and after having met with considerable difficulty in obtaining clear solutions that would filter, I tried various new plans of preparing digestive fluids; and from the circumstance that the pig was an omnivorous animal, with a very strong digestion, and his stomach to be easily procured for a small sum, I was led to try his pepsin in preference to that of any other animal. The following mode of preparation was found to answer very satisfactorily. It is very simple, and free from many of the objections to which other processes are liable.

The mucous membrane of a *perfectly fresh* pig's stomach was carefully dissected from the muscular coat, and placed on a flat board. It was then lightly cleansed with a sponge and a little water, and much of the mucus, remains of food, etc., carefully removed. With the back of a knife, or with an ivory paper-knife, the surface was scraped very hard, in order that the glands might be squeezed and their contents pressed out. The viscid mucus thus obtained contains the pure gastric juice with much epithelium from the glands and surface of the mucous membrane. It is to be spread out upon a piece of glass, so as to form a very thin layer, which is to be dried at a temperature of 100° over hot water, or in vacuo over sulphuric acid. Care must be taken that the temperature does not rise much above 100°, because the action of the solvent would be completely destroyed. When dry the mucus is scraped from the glass, powdered in a mortar, and transferred to a well-stoppered bottle. With this powder a good digestive fluid may be made as follows:—

Of the powder	5 grains.
Strong hydrochloric acid . .	18 drops.
Water	6 ounces.

Macerate it at a temperature of 100° for an hour. The mixture may be filtered easily, and forms a perfectly clear solution very convenient for experiment.

If the powder is to be taken as a medicine, from two to five grains may be given for a dose, a little diluted hydrochloric acid in water being taken at the same time. The pepsin powder may be mixed with the salt at a meal. It is devoid of smell, and has only a slightly salt taste. It undergoes no change if kept perfectly dry, and contains the active principle of the gastric juice almost unaltered.

The method of preparing this pepsin was communicated to Mr. Bullock, of the firm of Messrs. Bullock and Reynolds, 3, Hanover-street, Hanover-square, who at once adopted it for the preparation of medicinal pepsin, and soon improved upon it in some particulars.(a) Gradually the usefulness of this preparation of pepsin of the pig was found out, and it had to be prepared in increasing quantities. I should be afraid to say how many pigs' stomachs have been used of late years during the winter season.

In 1857 Dr. Pavy carefully examined the pepsin prepared and sold by many different firms, and found that this dried mucus of the pig's stomach was the most active of them all (*Medical Times and Gazette*, 1857, vol. i., p. 336). In 1863, Professor Tuson instituted a still more careful comparative examination, and with a similar result (*Lancet*, August 13, 1870); for he found that this preparation was *twenty-five times stronger than some others that he obtained for examination.*

I have purposely abstained from writing about the value of this preparation since the note I first published concerning it in 1856. It has, however, been used largely by many Practitioners ever since, who are thoroughly convinced of its usefulness. I have often given it to patients, who did not know what they were taking, but were quite satisfied of the improvement which resulted; and I have tested its usefulness in many different ways. It is often extremely valuable in treating the diseases of young children, and I believe that persons greatly advanced in age may sometimes be kept alive by it.

(To be continued.)

Liverpool Northern Hospital.—At the annual meeting of the Northern Hospital, Liverpool, an alteration was made in the rules, under which, in future, no candidate will be eligible to serve on the hon. Medical staff unless he shall have been engaged in private practice for three years.

Elisé Reclus.—This eminent scientific scholar, for whom a petition was forwarded from England to the Government at Versailles, has, we are happy to say, had his sentence commuted to banishment from France.

(a) Mr. Bullock supplies genuine pepsin at the rate of 2s. per drachm. The dose is from 2 to 4 or 5 grains. *Test:* 8 grains of this pepsin, with ten drops dilute hydrochloric acid and an ounce of distilled water, dissolve 100 grains of hard-boiled white of egg in from twelve to twenty-four hours. In the body probably twice this quantity of white of egg or even more would be dissolved in a comparatively short space of time. The digestive powder prepared from the pig's stomach retains its activity for any length of time if kept dry. I had some which had been kept in a bottle for upwards of five years, and still retained its active power unimpaired. The solution made with this pepsin and hydrochloric acid was nearly tasteless and inodorous. One pig's stomach, which costs 6d., will yield about forty-five grains of the powder prepared as above described.

ORIGINAL COMMUNICATIONS.

A FEW WORDS IN EXPLANATION OF THE MEANING OF PAIN.

By C. B. RADCLIFFE, M.D., F.R.C.P.,
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On various occasions during the last dozen years I have had occasion to call attention to the history of pain. I ventured to think that the facts demanded a very different interpretation to that commonly put upon them; and, notwithstanding all that Dr. Chapman has recently urged to the contrary in the pages of this journal (December 23, 1871, and January 20, 1872), I still venture to do so. I see plainly enough that I might have taken my stand more firmly; I see, in what is said, no reason whatever for shifting my ground.

The history of pain in gout, I take it, may well supply the key to the history of pain in all cases; and what this history is, so far as concerns my present purpose, a short quotation from what I have already written will serve to show. "'About two o'clock in the morning,' says Sydenham, who, from personal experience knew full well what to say, 'the patient is awakened by a severe pain in the great-toe, or, more rarely, in the heel, ankle, or instep. This pain is like that of a dislocation, and yet the parts feel as if cold water was being poured over them. Then follow chills and shiverings and a little fever. The pain, which was at first moderate, becomes intense; and with its intensity the chills and shivers increase.' After tossing about in agony for four or five hours, often till near daybreak, the patient suddenly finds relief, and falls asleep. Before falling asleep the only visible change in the tortured joint is some fulness in the veins. On waking in the morning, the part has become swollen, shining, red, tender in the extreme, and more or less painful; but this painfulness is as nothing when compared to the torture of the night past. It seems, indeed, as if the pain which now exists must be referred to the mere tension and stretching of the inflamed ligaments, for it may be relieved or even removed by judiciously applying support to the toe and to the sole of the foot. On the night following, and not unfrequently for the next three or four nights, the sharp pain in all probability returns, reappearing and disappearing suddenly, or almost suddenly, and resulting in the discovery of additional inflammatory swelling upon awaking in the morning. The pain in these relapses, like that in the first attack, is accompanied by chills and shivers, and by the most distressing irritability and excitability; but, until unequivocal signs of inflammation are developed in it, the painful part is not tender in the true sense of the word. The inflammation is attended with no fever, or by very little; or if it be otherwise, as it is occasionally, and the inflammation runs higher than usual, *the characteristic pain is less urgent than usual.*"

Here then is pain *before* the establishment of local tenderness, heat, and swelling; and pain of another kind *after* the establishment of local tenderness, heat, and swelling—the former kind violent, neuralgic, paroxysmal, coming and going suddenly without apparent cause; the latter kind, though often severe enough, only accidental, depending solely upon some disturbance of the tender part by pressure, stretching, or the like. Here is pain, which must be regarded as a symptom of the cold stage of the inflammation, going hand in hand with the rigors and shiverings of this stage, and in association with a state of circulation which is more akin to collapse than true fever, and pain which belongs to the stage of reaction in the circulation—in the hot stage of the inflammation, in fact. Nothing can be more different than the belongings of these two kinds of pain; nothing can be more certain than that the paroxysmal pain is not a symptom of the inflammation in the sense in which the accidental pain is a symptom. Accidental pain may be a symptom of the inflammation; paroxysmal pain, on the contrary, instead of being such a symptom, points to a state of vascular contraction rather than to a state of vascular relaxation—a state which may pass on into inflammation, but which, while it lasts, is in every way opposed to inflammation. Instead of being a symptom of inflammation, indeed, it would even seem that paroxysmal pain is antagonised by inflammation.

And this, as it seems to me, is the history of all pain, not even excepting that which is connected with inflammation of the brain, or spinal cord, or sensory nerves. In all cases, as it seems to me, true paroxysmal pain—the pain which is other than accidental—is connected with a state of circulation which is more akin to collapse than to vascular reaction; and the only conclusion which I can draw from the facts is, that this pain, instead of being a symptom of inflammation, is a proof that such inflammation is not yet established, and a reason for supposing that the remedial measures needed are those which are calculated, not to check, but to promote, reaction in the circulation.

Dr. Chapman, however, is not disposed to accept this view. He will have it that pain "other than accidental" is the symptom of symptoms of inflammation of the great nerve-centres. He will have it, also, that there must be a state of vital excitement of the vaso-motor centres in the cold stage of inflammation in any case, and that in order to the existence of this state of excitement there must be a surplus of blood in these centres—a surplus which, of course, is by no means incompatible with the opposite state of things in the superficial vessels of the body. And he appeals to his experience with his ice-bags as being contradictory to my notions. But really I cannot see the force of these objections.

Dr. Chapman asserts that all other writers are against me as to the symptomatology of inflammation of the great nerve-centres, in that pain is always given by them as the most prominent symptom of such inflammation. I can only answer that the facts, so far as I myself have been able to observe them, are as I have stated them to be—*that pain is by no means the prominent symptom which it is believed to be in these affections;* that true paroxysmal pain, when it is present, is in the cold stage prior to the establishment of the inflammation; that such pain disappears on this establishment; that, in short, true paroxysmal pain, instead of being a symptom of these inflammations, is rather a symptom of those affections of the nerve-centres which are non-inflammatory in their nature. It is simply a mistake, so far as my experience goes, to suppose that violent paroxysmal pain, any more than spasm, is a symptom of symptoms in inflammation of the membranes of the spinal cord, for example; the simple fact being that such pain, when it is present, is obviously in the cold stage of the disorder, and that any other pain which may be present afterwards is as obviously only accidental, in that it is absent if the movement of the back which gives rise to it be avoided. Can Dr. Chapman, from his own experience, contradict what I have myself observed in these matters? And for the rest, I will only state my belief that the question at issue has been prejudged by all in assuming that pain, like spasm, is a symptom of inflammation or of a condition akin to inflammation, and that much confusion would have been avoided if many writers on systematic Medicine had been less content to copy their predecessors, and if their predecessors had observed for themselves rather than copied the notes taken by young and inexperienced clinical clerks, who have not always been careful to discriminate between the symptoms proper to the cold stage of inflammation and those proper to the hot stage.

Nor can I agree with Dr. Chapman in thinking that there must be a hyperæmic condition of the vaso-motor nerve-centres to account for the contraction of the vessels present in the cold stage of inflammation. I can find a different explanation (not quite that which Dr. Chapman gives for me) for this contraction in electro-physiology, but not one short enough to be introduced here. But the main question is not as to the condition of the vaso-motor centres during pain: it is as to the condition of those centres which take cognizance of pain. Are these more bloodshot than they should be? Is paroxysmal pain accompanied by any signs indicating "determination of blood" to the head? Quite the contrary, say I; and what I have said remains unanswered, so far as I know. Moreover, I may add here, as an argument to the same effect, that in several cases in which I have looked into the matter with the ophthalmoscope, the deep arteries of the retina seem smaller, and the deep veins larger, during a bout of violent neuralgia than they are found to be after the paroxysm is at an end.

And as to the ice-bags there surely need be no great difficulty. No doubt pain in the spine may in some cases be relieved by this means. But what of this? May it not be sometimes that the cold relieves the pain by "driving the blood inwards," rather than by lessening the blood in the spine? May it not be sometimes that the pain is relieved by the cold benumbing certain afferent nerves? And what of those cases—not a few—in which the ice-bag cannot be borne with, because severe paroxysmal pain is set up by it?

The case, no doubt, is somewhat complicated. The subject, indeed, is more than sufficient, not only for a short article like

the present, but for many long chapters; and, therefore, my best course is to come to a stop at once, and refer for the rest to what I have written elsewhere, more especially in a book having the title of "Dynamics of Nerve and Muscle," and to the article on Diseases of the Spinal Cord in Dr. Reynolds's "System of Medicine."

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

By HENRY ARNOTT, F.R.C.S.,
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V.

Sarcoma.—(*Continued.*)

Round- and Oval-cell Sarcoma—Small Round-cell Sarcoma—Myeloid Sarcoma.

Round- and Oval-cell Sarcoma.—Besides the spindle-cell growth which constitutes the bulk of most of the sarcomata, certain of these tumours are made up of cells of a still lower type—embryonic cells—consisting merely of little lumps of nucleated protoplasm, which, held together by a nearly fluid connecting-material, show but little tendency to assume an elongated form by regular pressure on the sides, but remain as soft, spherical or ovoid cells, like those met with in granulations, although occasionally considerably larger; hence the name "granulation tumour," which has been suggested for this form of growth. Tumours possessing this structure are generally very soft, and from their consistence and general appearance, as well as from their microscopic characters, are more liable than any other form of neoplasm to be mistaken for medullary carcinoma. These tumours are very vascular, the vessels being usually simple channels through the cell-tissue, with walls formed by the same cells; and hence the very frequent rupture of the vessels, and escape of blood into the substance of the tumour—sometimes to such an extent as to give rise to a large "blood-cyst," which by its size may mask the real nature of its origin. The cells themselves are also very fragile, so that it is unusual to prepare either a scraping or a section of one of these growths without allowing a large number of free nuclei to escape. Seen in section, it is often even more difficult to recognise the precise form of the cells than in the fusiform variety. The usual appearance is that of an amorphous or granular substance in which large or small round or oval nuclei, with bright nucleoli, are embedded. At the edges of the section the rounded outline of the soft cells may be recognised, and in little detached bits of the section their shape becomes yet more distinct. The size and shape of such detached cells (see Fig. 14) suggest at once the occasional difficulty in distinguishing these tumours from carcinoma.

Fig. 14.

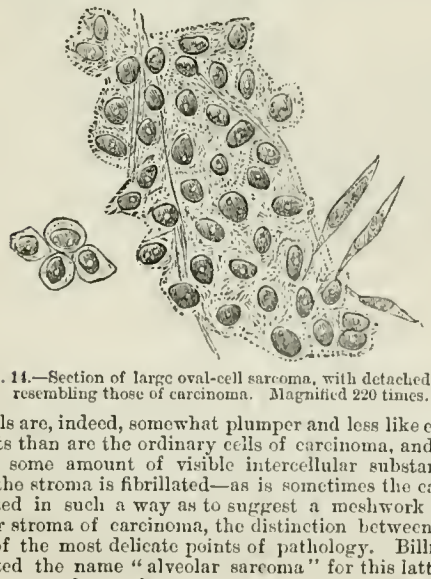

Fig. 14.—Section of large oval-cell sarcoma, with detached cells resembling those of carcinoma. Magnified 220 times.

The cells are, indeed, somewhat plumper and less like epithelial elements than are the ordinary cells of carcinoma, and there is usually some amount of visible intercellular substance; but where the stroma is fibrillated—as is sometimes the case—and fibrillated in such a way as to suggest a meshwork like the alveolar stroma of carcinoma, the distinction between the two is one of the most delicate points of pathology. Billroth has suggested the name "alveolar sarcoma" for this latter form. It is, fortunately, rarely encountered, and its accurate distinction is a matter of pathological interest rather than of clinical importance, for about its grave malignancy there can be no doubt. I have seen a patient dying with upwards of a hundred of such tumours scattered through her body, chiefly in the subcutaneous cellular tissue, but also affecting lymphatic glands, breast, and kidney. In this case most of the growths contained more or less of black pigment, the pigment granules lying in large round cells, and in sufficient quantity to render most of the growths distinctly melanotic.

The more usual form of round-cell sarcoma is made up of much smaller cells than those just described, cells closely resembling leucocytes or the first cells of a granulation; and since these minute cells are mostly about the size of blood- or lymph-corpuscles, the distinction between this form of growth and lymphoma (to be presently noticed) is sometimes as difficult to draw as is the distinction between the larger oval-cell sarcoma and medullary carcinoma. This small round-cell tumour differs from true lymphoma mainly in lacking the fine reticulated stroma of the latter neoplasm. The cells or corpuscles are separated by a variable amount of semi-fluid granular substance; but occasionally an appearance as of fine fibrillæ branching amongst the cells is met with, and when this is the case the growth is to be distinguished from lymphoma by the absence of minute nuclei in the angles of the network, to be hereafter described as characteristic of that structure. Round-cell sarcoma is a distinctly infiltrating growth, as may be seen in the subjoined sketch (Fig. 15), taken from a thin

Fig. 15.

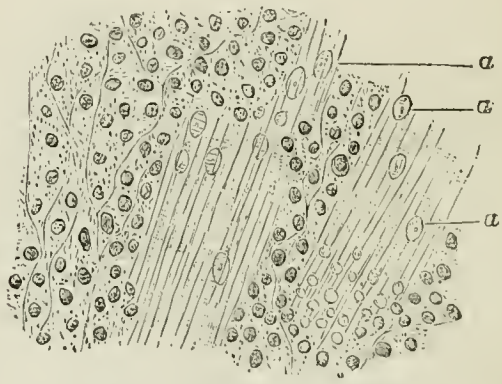

Fig. 15.—Small round-cell sarcoma infiltrating muscle; *a a a*, nuclei of the striped muscle-fibres. Magnified 220 times.

section of one of these tumours springing from the fibula and blending with the muscles of the calf. Remains of striped muscle-fibres broken up and invaded by the new growth sufficiently attest its destructive character, and show that the muscle is not merely wasted by the pressure of the increasing mass in its neighbourhood.

The structure of this tumour closely resembles what is to be met with in the vicinity of nearly all active new growths. As these advance, they send before them, so to say, "feelers" of this "indifferent granulation material," which stretch out into the surrounding structures, and form the first histological indication of the march of the morbid change. Reference has been made to this tissue in the description of the early stages of carcinoma. The peculiarity about the growth now occupying our attention is, that the whole bulk of the possibly enormous mass is made up of the same simple small corpuscular structure. To establish this fact it is of course necessary to take a scraping or section from three or four different parts of the tumour under examination. Such an investigation may show the *prevailing type of cell* to be of another kind, these small round corpuscles merely spreading about the margins of the growth; and so the tumour may receive a different name, and perchance a corresponding difference may be required in the prognosis of the case.

These round- and oval-cell sarcomas are usually very soft, white—or variously mottled by the results of blood-extravasations—blending intimately with the structures amongst which they lie, and readily exuding a creamy juice filled with the cells and escaped nuclei of the tumour. They are far more apt to infect lymphatic glands than are the spindle-cell varieties, and, as a general rule, are also far more rapid in their destructive course.

Myeloid Sarcoma is a form of the spindle-cell variety in which a distinctive feature is given to the growth by the

presence, in considerable number, of the large plate-like masses of nucleated protoplasm normal in the fœtal marrow of bones. But it must be borne in mind that these singular cell-masses are met with under many different circumstances besides the tumours springing from the medullary cavities of bones. It is probable that few spindle-cell sarcomas from any part of the body could be thoroughly examined, bit by bit, without some "myeloid" cells being encountered; and Dr. Payne has described the occurrence of similar cells in certain early stages of lymphatic gland enlargement. But in certain sarcomatous tumours springing from bone, and especially from the medullary cavity of the bone, these cells occur in such number as to offer a convenient characteristic by which to classify the growths exhibiting them.

These myeloid growths are usually much firmer than the other varieties of sarcoma, approaching more nearly to the density of fibromas; their cut surface has a smooth, fleshy look, unlike the fasciculated appearance of the firmer spindle-cell varieties, and they yield a scanty juice to the knife scraping them. They are very commonly met with springing from the periosteum of the jaw (where they are usually styled fibrous epulis) and about the ends of the long bones, but they may be met with in other situations. They are probably less malignant than many forms of sarcoma, but they are very apt to recur after apparently careful removal, and secondary growths have been occasionally met with in the lymphatic glands, lungs, etc.

Fig. 16.

Myeloid sarcoma from an epulis. Magnified 220 times.

Microscopically the diagnosis of this form of sarcoma is sufficiently simple. Embedded in a tissue made up of small oat-shaped cells (with which small round and oval cells may be mixed) are large pale irregular cells (Fig. 16) containing small bright oval nuclei with nucleoli. These last cells have the appearance of flat plates rather than spherical or ovoid masses of protoplasm, and vary in size from a tiny cell containing a single nucleus, to a very large mass holding a score or more of similar nuclei.

(*To be continued.*)

CLINICAL REMARKS ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

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(*Continued from page* 701, vol. ii., 1871.)

Fibroid Phthisis, its characteristic signs and pathology summarised; reasons for selection of term as most applicable—A disease secondary to some parenchymatous affection of the lung, doubtful if pleurisy or bronchitis alone will give rise to it—Relations to other forms of phthisis—Example related—Summary—Remarks on diagnosis, prognosis, and treatment.

Certain forms of pulmonary phthisis of various origins are attended by such an amount of interstitial fibrous growth as to give them clinical features of a very peculiar type.

The prominent symptoms and signs by which such cases are distinguished—increasing contraction and immobility of the side, dragging pains, traction of organs to that side, deadened percussion-note, and weakened respiration of more or less bronchial quality (intensely so, or cavernous, at parts), breathlessness, paroxysmal cough, occasional hectic, but general absence of fever, very chronic progress, long-continued one-sidedness of the disease, and correspondingly slow failure of nutrition—show them to come within the definition of phthisis, but phthisis of a special kind.

The conditions presented to us, post-mortem, of a contracted, toughened, indurated, and usually pigmented lung, surrounded by a greatly thickened adherent pleura, containing one or more rigid, dense-walled cavities, dilated bronchi, and cheesy encapsuled nodules, are confirmatory of this view. On minute examination, we further discover this condition of lung to have been produced by a growth of two kinds pervading it. 1. Connective tissue proliferation, resulting in the formation of bands and processes of *fibrous* tissue, derived from the sheaths of vessels and bronchi, and the sub-pleural and interlobular tissue of the lung. 2. A more important nuclear growth leading to the formation of broad tracts of *fibroid* tissue, thickening the walls of the alveoli, compressing, and finally effacing them, unless they shall have been previously stuffed with their own catarrhal products; this fibroid structure being very possibly derived from the lymphatic elements normally pervading the lung.

The products of these two processes become intimately mingled, but it is the latter which is the phthisical element in the disease, for mere connective tissue growth does not lead to organic destruction of the lung. This is also the element which specially gives to the disease its peculiar clinical features, and renders the name "fibroid phthisis" applicable to it.

The term "fibroid phthisis" has been productive of much discussion. Originally introduced by Dr. Andrew Clark as "embracing all those cases, whether local or constitutional, which are anatomically characterised by the presence, in a contracted and indurated lung traversed by more or less dilated bronchi, of fibroid tissue, and of tough fibrogenous substance, together with cheesy deposits or consolidations, and usually small cavities, commonly found about the middle and lower parts of the affected organ"(a)—it has been objected to as signifying too definitely the existence of the disease as a substantive or idiopathic one. Dr. Clark is, however, convinced that it may, and often does, appear as a primary affection, in which view he differs from most contemporary authorities. Still, the term is such a neat, concise, and clinically useful one, that it has been very generally accepted with the above reservation. Dr. Clark argues, with much force, that these cases are indisputably cases of phthisis, while all their special characters are due to the pervasion of the affected lung by a contractile fibroid and *fibrogenous* tissue. These two facts cannot, I think, be controverted; and when it is further urged, as I think it may truthfully be, that this fibroid tissue is indistinguishable in situation and development from chronic tubercle, a very fair case may be made out for the preservation of the term "fibroid phthisis," though its distinguished author would, I fear, not admit this latter argument. I ventured, in a paper read before the Clinical Society in October, 1868 (*vide* Clinical *Transactions*, vol. ii., p. 193), to question whether this term was advisable, since the pure constitutional disease was of such rare and doubtful occurrence. Later reflection and the observation of a good many cases have, however, led me to think that this objection, though by no means weakened (see article by Dr. Fox, *loc. cit.*, p. 772), is not sufficient to render the term clinically inapplicable, since "fibroid" only corresponds with other adjective terms—"catarrhal," "tubercular," etc.—in describing the *predominant* character of the variety of phthisis thus distinguished; for in all cases of chronic phthisis the morbid processes are more or less of mixed character. Dr. Wilson Fox, in his exhaustive article on "Chronic Pneumonia" in Reynolds's "System of Medicine," vol. iii., includes under that term all cases of pulmonary fibrosis uncomplicated by tubercle; his chronic pneumonia would therefore agree with Dr. Clark's fibroid phthisis, except that he does not admit the disease as a primary or constitutional one. On the contrary, he contends that it is always associated with (and dependent upon) catarrhal pneumonia; hence his adoption of the term "chronic pneumonia." Dr. Fox, though thus characterising the typical disease as essentially one of pneumonia affecting the lobules of the lung, not the connective-tissue which binds them together, acknowledges that freedom from tubercle is very exceptional. Dr. Bastian would include all these diseases under the old term "cirrhosis of the lung." Cases

(a) Clinical *Transactions*, vol. i. p. 183.

to which the term "cirrhosis" is strictly applicable, in which there is no catarrhal pneumonia or tubercle, nor any true organic destruction of the lung are, however, so rare as to render the name a misleading one.

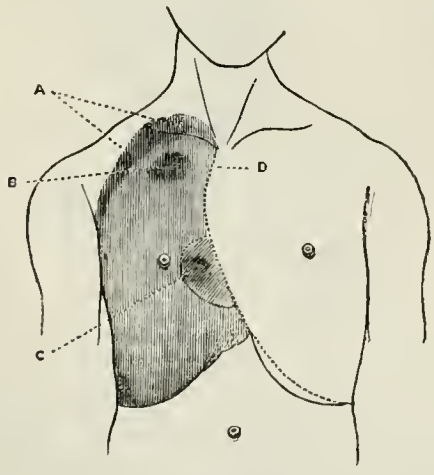
This disease, then—fibroid phthisis—is in the great majority of instances, so far as my own experience informs me, of a truly secondary nature, supervening upon some more or less acute inflammatory affection of the lung, whether simple basic-, or broncho-, or catarrhal, or tubercular pneumonia. It is very doubtful whether pleurisy or bronchitis alone can give rise to it without the intervention of lobular pneumonia or tubercle. Local injury or pulmonary abscess may form the starting-point of the disease, but are not alone sufficient to cause any extensive fibroid invasion of the lung beyond their own immediate limits.(b)

Numerous examples may be found of this somewhat inclusive disease, ranging from the most typical cases to those which are indistinguishable from ordinary chronic phthisis. In the third paper of this series is described a case of catarrhal-pneumonic phthisis, in which the transition into one of fibroid phthisis or pulmonary fibrosis is traced. It would not be difficult to find examples in which the reverse takes place, the clinical characters of fibroid phthisis being gradually changed by subsequent pneumonic processes, and all the features of the special variety becoming merged in the diffuse pulmonary destruction.

Cases of fibroid phthisis may be roughly divided for convenience of clinical exposition into three varieties:—1. Those in which the disease has its starting-point at the apex of the lung, and is proceeding downwards. 2. Those in which it commences at the base, and advances upwards. 3. Those in which the most marked signs are discoverable about the middle of the lung. Of the first variety the following case is a fair example:—

George P., a sawyer, aged 43, came first under my notice as an out-patient at the Brompton Hospital in August, 1868. He was a thin man, with dark hair, having no hereditary predisposition to lung disease, except that his father had suffered from "asthma." In the preceding January, having suffered from slight cough for years, he was laid up for six weeks with "inflammation of the right lung." Since that time the cough had been continuous, and three months ago had been attended with slight hæmoptysis. The cough was now paroxysmal, causing retching and often rejection of food; expectoration difficult, abundant, and of a pink tinge. He had got thinner lately. The digestive functions were fairly good; the pulse a little hurried; no fever.

On inspecting the chest, cardiac pulsation was visible at the fourth right interspace, C, to left of right nipple. This side was diminished in size and much restricted in movement, the intercostals deepening with inspiration; while the left side expanded freely, with an uplifting movement of the shoulder. On careful examination, the apex of the heart was found a little to the left of the ensiform cartilage. On percussion, the left side in nipple-line anteriorly was dull to the second rib, comparatively resonant to the fourth, and below this point again toneless. To the left of the line of sterno-clavicular



articulation, at the level of the second and third cartilages, there was good resonance continuous across median line with that of opposite side. The line of this resonance, D, sloped upwards to the episternal notch, being displaced in a downward direction by cardiac dulness at the fourth cartilage. Hepatic dulness barely reached the costal margin. There was dulness throughout the *axillary* region and *posteriorly* from apex to mid-scapula, the note having a tubular quality in this latter region. Below mid-scapula there was fair resonance to the ninth rib, though less and harder than on opposite side; the lower two or three inches on the right side gave a flat note on percussion.

The percussion-note over the whole left side, including the region of normal cardiac dulness and extending across the median line, as above indicated, was full and good in front and behind.

The auscultatory signs were in agreement with those of percussion. Above the clavicle the respiration was amphoric, dry; below the clavicle weak and bronchial to the base, with some rather large, moist rhonchus, friction, and bronchophony. At one spot corresponding with the second and third ribs nipple-line, B, the breath-sound was of tracheal quality, with scanty cavernous clicks and pectoriloquy. In the upper axillary region the respiration was amphoric, and the voice-sound pectoriloquous; in the supra-spinous fossa and interscapular regions, cavernous blowing, with pectoriloquy. Blowing respiration extended to the angle of the scapula, where it became weaker, and gradually annulled at the base. The vocal fremitus was generally increased on the right side. Respiration throughout left lung exaggerated, vesicular.

February 27, 1869.—Patient has improved in flesh and appearance; stronger than before, but complains much of cough, and expectorates much pink phlegm. Breath short on exertion; cough causes retching, but does not bring up food now; appetite fair; digestion not very strong; bowels regular. Continues medicine (oil with nitro-muriatic acid and cinchona). Fingers noted (February 13) to be clubbed. The additional physical signs noted at this date were, a distinct short systolic bruit at the point of maximum cardiac impulse, not appreciably increased by pressure nor confined to that spot, being also audible at the apex. Measurements of chest: From mid-sternum to nipple, right side, 4 inches; semi-circumference, 15½ inches; expansion, ¼ inch. Left sterno-nipple measurement, 4½ inches; semi-circumference, 16 inches; expansion, ½ inch.

We may, by way of summary, aided by a glance at the above figure (reduced as accurately as possible from a sketch taken at the time upon an outline diagram used by Dr. Sanderson), interpret the above detailed physical signs as indicating general induration of the right lung, with much contraction, its anterior margin having receded considerably from the median line, exposing the pericardium, and also shrinking away from the upper surface of the liver. Its upper and a portion of its lower lobes are extensively excavated, the cavities being old, tolerably dry, and shrunken with the general contraction of the lung. The pleura (from the hardness of percussion, feebleness of breath-sound, and great fixity of walls) is probably greatly thickened. The liver is drawn up within the costal margin, and the heart considerably displaced to the right, its axis being, however, but little altered. At a later examination a murmur is heard over the heart.

Subsequently to the last note I repeatedly examined his chest during the many months of his attendance at the Hospital, but beyond some variation in the dryness of the sounds there was no important change in the physical signs. I fancy I examined the urine more than once, but the only note I have of it was taken in April, 1869, when it was acid, became slightly turbid on boiling, but cleared on adding a drop of nitric acid. The left lung remained healthy, and, though the patient continued thin and cachectic-looking, with a troublesome cough, he held his ground fairly well, and rather improved in general health. At times the expectoration would become very abundant, and occasionally of a pink colour (I thought due to fresh irritation and slight sanguineous discharge from the walls of the old cavity). The most troublesome symptom throughout the case—and one which is common in greater or less degree to all those cases of phthisis in which indurated thick-walled cavities are present—was the paroxysmal cough terminating in vomiting, occurring especially after meals. No doubt the mechanical conditions of such a cavity, rendering the removal of expectoration very difficult, have much to do with the production of vomiting, and render it a particularly common symptom in these cases; but the reception of food into the stomach has seemed to me to be in many cases so constantly followed by cough, ending in vomiting, as to render this mechanical explanation insufficient, and in 1869

(b) *Vide* first paper of present series, June 10, 1871.

I was led to attribute it to an undue reflex irritability of the pneumogastric nerve,(c) and proposed strychnia as the best remedy. I have since, in many cases, found this remedy valuable, but by no means invariably so.

On leaving off attendance at the Hospital in May, 1869, the patient continued for a time to improve, though not free from cough; but he soon afterwards began again to emaciate, and the vomiting with cough returned. He again attended in January, 1870, resumed the oil, and used carbolic acid inhalations, and left March 30, improved. Since this time I have heard nothing of him.

The above-related case represents very well the main features of fibroid disease of the lung. The indurative disease supervened presumably upon an acute apex (tubercular or catarrhal) pneumonia, and did so with tolerable rapidity, the characteristic symptoms and signs being fully developed within six months of the termination of the acute disease. The question as to the rapidity with which this disease may advance is one of great interest, and requiring further observation. I cannot but think that, reasoning from the morbid appearances found post-mortem, we are apt to regard such diseases as older than the clinical history will warrant us in believing; on the other hand, though it is very probable that the fibroid induration of the lung may proceed with great rapidity to such a stage of shrinking as to produce very marked clinical signs, its subsequent progress is very slow and difficult to measure, consisting mainly in the further hardening of an already indurated lung, the gradual widening of the bronchial tubes, and filling up of the loose œdematous areolar tissue between the separated pleural layers by dense fibrous growth.

There are a few points for consideration in the *diagnosis* of the above case.

That it is not simply a case of contracted cavity is evident from the contraction of the side being general, from the heart being displaced laterally, not specially drawn up towards the right apex, from the weakness of breath-sound, and dulness at the base, with raising of the liver. The presence of considerable excavation at the apex would be in favour of the disease having commenced there as an apex (phthisical) pneumonia, and not being secondary to basic pleuro-pneumonia or empyæma. It would also negative its being a case of simple cirrhosis of the lung. The resonance of the opposite lung extending across the median line would emphatically exclude cancer, which the history of the case, and many other signs, particularly the kind of cardiac displacement, would also negative. While in certain cases of mediastinal cancer the heart is fixed in about its normal position, it is, I believe, never displaced towards the side most affected. In regarding the signs of cardiac displacement, however, it is important to avoid taking the point of maximum impulse as necessarily the apex-beat. In this case the real displacement of the heart is much less than a first glance would lead us to believe. The absence, while the patient was under observation, of any evidence of complication of other organs would be in favour of the disease being of local origin.

In calculating the *prognosis* in these cases, we have to bear several things in mind—the cachexia of the patient, the size and freedom of communication with external air of any cavities present, and the evidence of disease of other organs, especially of the opposite lung. The cachexia is occasionally very manifest; without very marked emaciation the anæmia is apt to become great, and the complexion of a straw-tint, reminding one of that seen in certain cases of cancer or in women suffering from uterine disease. A cavity of considerable size, and freely communicating with outer air, is a more hazardous condition for the patient than one which is small, or which we may presume to have become flattened and partially or completely closed. In the former condition the patient is constantly liable, on exposure to cold, etc., to recurrence of irritation and fresh ulceration of the cavity-wall, causing profuse secretion and hectic, as in the present case, or laying bare vessels which may at any time rupture and cause death from hæmoptysis.(d) When the opposite lung is affected, it is most generally by grey tubercle, and it in most cases becomes so sooner or later, unless the patient be cut off too soon by some intercurrent affection. We must, however, not give a too hastily fatal prognosis from mere physical signs in such cases, for the course of the tubercle is disposed to be very chronic and indurative, and the signs may again subside and long remain in abeyance. But when attended with decided elevation of temperature, the prognosis is most grave, for pulmonary tuberculosis is perhaps the most common cause of death in these cases. Dr. Clark regards albuminoid degeneration of other organs—the liver and kidneys—as commonly supervening in the later stages of this disease. Of the three purest cases of which I have made post-mortem examinations, in which there was no obvious grey tubercle in the other lung (though islets of peribronchial induration were present in all), in one there was extensive albuminoid degeneration of liver and spleen, with granular kidneys; in another of the spleen only, with ulcerated intestines. Albumen in the urine, absent in the present case, affords us the earliest clinical evidence of this degeneration. Though the prognosis is always, in cases of fibroid phthisis, a precarious one, from the circumstances above mentioned, yet the course of the disease may be very long, and may, with due precautions, in some instances be almost indefinitely extended. The condition of health and *physique* maintained by some patients is remarkably good. In this respect the example above related is an unfortunate one; I have notes, however, of a postman presenting exceedingly well-marked signs of this form of phthisis, who almost entirely lost his cough while attending the Hospital, and was able to resume his duties, walking fourteen or fifteen miles a day; and I might mention two or three other patients capable of considerable physical exertion on level ground.

The management of this variety of phthisis is not very peculiar; the prevention of fresh catarrhs by judicious clothing, the selection of climate when practicable, the avoidance of night-air, and protection from irritating fogs or cold or damp winds by respirators, are, with a nutritious but not stimulating diet, the hygienic measures to be adopted. Iodine frictions, soothing or antiseptic inhalations (carbolic acid being particularly useful when there is any fetor of expectoration), seem the best local remedies; while the general condition, including that of digestion, the nature of the cough, and profuseness of expectoration, supplies us with indications for the administration of appropriate drugs—iron, cod-oil, strychnia, alkalies, tonics, etc.—or the abstention from all medicines.

The very full consideration of the above example of fibroid phthisis, and of the general bearings of the disease, renders it perhaps unnecessary for me, even if space would permit, to enter further into those variations in the signs of this form of phthisis which depend upon its seat of origin.

(To be continued.)

(c) *Practitioner*, vol. i., p. 312. Dr. Hughes Bennett (Reynolds's "System," vol. iii., art. "Phthisis," 1871) regards this as a cause of vomiting in the later stages of phthisis.

(d) Out of eight well-marked cases of which I have made post-mortem examinations, this has been the cause of death in two. For an account of one of these, Downer, *vide* Clinical *Transactions*, *loc. cit.*, p. 181; the other is referred to in a Table on Hæmoptysis, Pathological *Transactions*, vol. xxii., p. 58, Case 1, F. W.

A MODE OF PROMOTING CONSTANTLY THE DEVELOPMENT OF COW-POCKS UPON HUMAN SUBJECTS, BY MEANS OF ANIMAL VACCINE LYMPH.

By Dr. BEZETH,

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(Communicated, at Dr. Bezeth's request, by Dr. Seaton.)

The well-known, sufficiently expounded difficulty with regard to inoculation of humanised Jennerian vaccine lymph is the profound dislike of a great many people against its application, and not only against its inoculation, but equally so against the taking of lymph for further supply, however constantly eruptive humanised vaccine lymph may be.(a)

Further, the well-known grievance of vaccinators against inoculation of animal lymph in human subjects—which, however, is tolerated with much less dislike by the public—is the inconstancy of eruption of cow-pocks, not only with regard to entire failures, but also to the number of pustules. This inconstancy has been observed till now chiefly in using preserved animal lymph, though immediate vaccination from calf to human individuals has also in this respect been not quite satisfactory. For the confirmation of this point may be consulted the last annual reports (1870) from Rotterdam and Amsterdam.(b) The same inconstancy is noted in the last communica-

(a) *Vide* Marson's standard in "Handbook of Vaccination," p. 160. By Dr. E. C. Seaton. London. 1868.

(b) Nederlandsch Tydschrift voor Geneeskünde 1871, 1ste Afdeel, pages 55, 155, and 582—Conf. Report by Dr. Seaton on so-called Animal Vaccination in France, Belgium and Holland, in Twelfth Report of the Medical Officer of the Privy Council, p. 171. London. 1870.

tions from other countries by impartial reporters, such as Delpech(c) in France. Dr. Seaton, in England (Twelfth Report, etc., *loc. cit.*, p. 189), writes—"Still, I am bound to say I do not in the least think it likely, putting all the facts together, that with any amount of experience or pains the virus will take nearly so kindly when transferred from the animal to human subject as when transferred from one human subject to another."

Consequently, it remains our permanent aim to promote the development of cow-pocks upon human individuals in a constant way; and this by means of animal vaccine lymph, as well as by humanised lymph, because we continue to think it recommendable that the inoculation of animal lymph should maintain itself on even terms next to vaccination of humanised lymph, and this especially in countries like Holland, where vaccination is not compulsory by general law.

We continue to think it recommendable, too, with regard to the quintessence of all vaccination in human subjects—viz., precaution against small-pox. To the question whether inoculated animal vaccine lymph is in this respect as trustworthy as humanised virus, we may answer with the following facts:—1. That in the Register for 1870 of our Society of Jennerian and Animal Vaccination, fourteen observations, purposely made as experiments, are stated, on children who were vaccinated from arm to arm, without notable result, after having been inoculated successfully from the calf a few weeks before. This proves, at least, that such animal lymph secures against the effect of vaccine virus itself. 2. During and after the late violent epidemic of small-pox at Rotterdam—1870 and 1871—no case has offered itself, or was made known to us, of small-pox in persons who, in sufficient time before the inoculation of small-pox, had been vaccinated successfully from our calves.

Strengthened in our confidence by these facts, we, in the experimenting way, got acquainted with a mode of operating which proves itself most favourable to the desired purpose—viz., the acquiring by means of animal vaccine lymph of a (in every respect) constant and abundant eruption of cow-pocks upon not vaccinated human subjects. Properly speaking, we ought to denominate it a renewed but modified mode of operating, because, long since, Negri, at Naples, followed nearly the same way, by taking the vaccine lymph on his lancet out of the tissue itself of the inoculated animal vesicles.(d) This mode procures efficacious vaccine virus, not only more constantly, but at an earlier period of the evolution of the animal eruption. According to Lanoix's statement, forty-eight hours only after the vaccination of the heifer, Negri applied successfully upon human subjects the lymph drawn out of the growing pock itself. We, too, may assert that by a similar manner we have obtained well-developed cow-pocks upon several children, with animal vaccine lymph taken out of the tissue of the pocks three days after the favourable inoculation of the calf. The lymph we then used had even been preserved between glasses.

However, we do not snip away the pustule, and then hold it between the fingers to scrape strongly the hindermost surface, as is done roughly by Negri,(e) but we make the pock rise up a little by a pair of draw-forceps, compressing its base till it opens on the outside of the cutis and gives issue to a minim of lymph. In this respect we still follow Lanoix, Depaul, Warlomont, Pissin. But our present method is to introduce a lancet into the tissue of the pock through the opening thus made in the cutis, and to draw out repeatedly the contents of the pustule itself on the lancet; after which we vaccinate with it immediately on the arms, or strike it off on a bit of glass for stored lymph or for mediate application. Points (Ceely,(f) Warlomont) may also be charged more actively in this way.

Formerly—like our French, Belgian, and Prussian predecessors—we practised with the "flow" of less certain lymph, which is driven out to the ruptured surface by the effect of the squeezing pair of forceps. We also formerly placed the glasses or points on or within this mixed fluid. Further, in order to fill entirely our usual bulbed capillary tubes, we formerly compressed rather more the environs of the pock, and thereby squeezed out the required (but then so much less certain) lymph, as more was drawn out of the circumference of the pustule. "It is quite evident, however, that the lymph cannot, in such cases, be obtained pure and unmixed with other animal products; and this is probably one reason of the unsuccess which attends vaccination with this lymph, and of the difficulty of preserving it."(g)

The fact that our former usual method produced vaccine lymph of inconstant action, may further be explained by the circumstance that the contents itself of the animal vesicle are not easily inclined to come forth. It is certain that by only puncturing the pock—as in human Jennerian pocks at the eighth day—generally very little is obtained, especially on the fourth, fifth, and often even on the sixth day of evolution of the eruption on the calf—viz., the period in which the animal lymph usually is taken for use. It is on account of the difficult evacuation of these pocks that the employment of forceps has been adopted—after Negri—by our predecessors (Depaul, Lanoix); but this instrument presses much more lymph out of the surrounding tissues than may be desirable for the vaccination to be constantly successful.

According to our new mode of operating, it is not quite possible to fill capillary tubes entirely and exactly at the proper period—usually five days after the vaccination of the calf—without taking up ineffective lymph out of the circumference of the pock. Here, indeed, the often-described method of Dr. Müller, at Berlin, may be followed,(h)—viz., to strike off on a glass the contents of several vesicles (animal, in our mode), and to mix accurately the gathered vaccine lymph with some pure glycerine and pure water, after which the absorption in capillary tubes for stored virus is easily performed. Their application procures us the most excellent results, and well next to the immediate vaccination from calf to human subjects and calves. It was a pleasant observation for the vaccinator to see how not only the usual punctures did develope cow-pocks, but even the wounds accidentally added by the same lancet; so that eighteen to twenty pustules upon both arms of several children are registered, and will be enumerated in our following annual report.

After all, indeed, it may be accepted without difficulty, that lymph from the calf drawn out of the pock itself at the proper period, must be the proper vaccine virus for inoculation; in other words, that such lymph must contain the proper virulent vaccine corpuscles—Beale(i)—not too much rarefied by other inactive matters (Chauveau). We have, moreover, observed many a time that with our mode of acting it is not necessary that the animal pustules have quite exquisitely succeeded in evolution to give still a good result on human subjects and calves.

It ought to be said that our new simple mode of operating is applied on calves without any observable painful or bloody injury, or other bad consequences. Generally, only a small brownish spot is found the following day, in lieu of the pock itself. But it is requisite that the animals, some months old, be firmly fastened during the operations.

We have still to add, that by means of our corrected manner, the evolution of a great number of cow-pocks upon our calves—females and males—is now regularly successful by inoculation on the shaven abdominal region, if the animal be healthy,(k) well provided for, properly fed, and vaccinated according to the rules of experience—to calf from calf, or out of capillary tubes which had been well sealed and wholly filled either with genuine animal or with humanised vaccine lymph (retro-vaccination).

Let it be remembered that the retrovaccination, or "the inoculation upon heifers with vaccine virus derived from the human subject, and the use of pocks thus produced for human vaccinations," was already systematically practised in the beginning of this century—shortly after the Jennerian arm-to-arm vaccination—by Dr. Galbiati, at Naples.(l) On the other hand, the propagation of natural, genuine cow-pocks by successive inoculations upon the heifer, and from this upon the human individuals, was effectively and regularly executed by Professor Depaul at Paris, in 1866.(m) During the last six months our Society not only pursues, as usual, the practice of arm-to-arm vaccination, and of vaccination from animal to human subjects, by means of Depaul's genuine regenerated vaccine lymph, but we maintain also the retrovaccination entirely separate, and this certainly not with the less success upon heifers and human subjects.

It may be regarded as indifferent, whether human indi-

(c) "Rapport au Conseil de Salubrité à Paris sur les faits de l'Epidemie Variolique, observés à Paris depuis l'année 1865 jusqu'au 1er Juillet, 1870." —"Annales d'Hygiène," Janvier, 1871, p. 214.

(d) Lanoix, "Etude sur la Vaccination Animale," p. 11. Paris. 1866.

(e) Conf. Ballard—*vide* Seaton, Twelfth Report, *loc. cit.*, p. 177.

(f) "Further Observations on the Variolæ Vaccinæ," p. 63. London. 1842.

(g) Seaton, Twelfth Report, *loc. cit.*, p. 177.

(h) "Vierteljahrsschrift für Gerichtliche und Offenliche Medizin." Bd. xi., Heft 1, 1869, p. 130.

(i) "Disease Germs, their Real Nature," p. 61. London. 1870.

(k) Henry Blanc, "Compulsory Vaccination," p. 24. London. 1869.

(l) "Memoria sulla Inoculazione Vaccina coll' umore Ricavata immediata della Vacca precedamente Inoculata." Napoli. 1810.

(m) "Expérience, etc., avec le Cow-pox ou Vaccin Animal." Compte-Rendu. Paris. 1867.

viduals—to secure them against small-pox—be vaccinated either by humanised vaccine lymph, or by genuine regenerated lymph of cow-pocks, or by retrovaccinated vaccine virus, if only, according to the disposition of the human constitution, it contributes to develope a constant and well-looking eruption of cow-pocks. We say *contributes* to develope, because the virus of cow-pocks alone, even the most virulent, is not able to do so, as may be observed by every day's experience. For this aim a *pyrogene*(n) and *phlogogene* alliance (Otto Weber, Billroth) with an innate something is requisite, which Dr. Ballard(o) denominates *pabulum*—food. By this alliance in the process of vaccination, the food for pocks can be consumed either totally or partly, either made unfit for ever or temporarily(p) as pabulum for the *virus variolosum*. By itself, *virus variolosum* is equally unable to produce variola; the same food out of the organism, the same alliance, is wanted for this purpose. In this way eruption of cow-pocks originated from any vaccine virus whatever can secure against small-pox.

In this way also, the necessity of revaccination is evident, in order to render the residue of the pabulum inactive for the development of small-pox. But when has the proper period for revaccination arrived? On account of its want of determination, the author of these lines begins to perform it in every case of his private practice, if possible, on the eighth day after successful primary eruption, and this most easily out of the cow-pocks themselves of the inoculated person. In the institutions of vaccination in our town, at Amsterdam, and at the Hague, this mode of revaccination on the eighth day is only practised, however, when the eruption of vesicles with regard to the number of punctures has been incomplete. The primary cow-pocks pursue their course in the usual way. Most, but not always, the secondary eruption, if it arises, consists in abortive pustules, this being exactly what we desire to complete the process of protection against small-pox, and to certify the constitutional effect of the primary inoculation—the modified Bryce's proof.(q)

All these facts ought to be practised and experienced in many cases, in order to judge of their usefulness and to arrive at the proper understanding of the matter.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

NECROSIS OF TROCHANTER MAJOR—REMOVAL OF DEAD BONE.

(Under the care of Mr. HENRY SMITH.)

The patient, a woman of middle adult life, had been operated upon some years previously in King's College Hospital, and carried the marks of former disease in the same region, in the form of an old depressed scar below and behind the trochanter major on the left side. At the time of operation there were two sinuses, opening upon a depression of the surface of the thigh, over the lower and outer part of the trochanter, through which dead bone was felt. Mr. Smith made two incisions from these sinuses, one an inch and a half backwards, and a shorter one downwards at right angles to the first, and then removed a portion of the trochanter with the bone-forceps and gouge. While using the latter instrument its brittle extremity snapped off, and a fragment of the metal, Mr. Smith said, remained in the wound. This was sought for, but could not be detected, and therefore, as Mr. Smith remarked, it was most probable that suppuration would follow, owing to the irritation which would be provoked by the presence of the steel.

CLEFT PALATE.

(Under the care of Sir WILLIAM FERGUSSON.)

This was a fissure of the whole of the soft and two-thirds of the hard palate in a young person. Sir W. Fergusson performed the operation upon the soft palate in the manner which he himself first proposed, dividing the muscles of the soft palate previous to paring the edges of the cleft. Chloroform was administered, and a new form of gag used, which consisted of two grooved plates to fit the teeth of the upper and lower jaws, connected by a horseshoe-shaped spring; this, being placed on the teeth of one side of the mouth, was quite out of the way of the operator during his manipulations. Four sutures were employed to bring the edges of the soft palate accurately into apposition. The sutures were passed in the ordinary way; but an excellent plan is adopted by Sir W. Fergusson, who, to facilitate the adjustment of the sutures, uses them of two different colours, passing sutures of the same colour on the same side of the cleft, so that one colour indicates those to be withdrawn and the other those to be retained. In his remarks, after the operation, he referred to the use of chloroform in these operations, and said that the danger of giving much was owing to the loss of sensitiveness of the upper part of the larynx, and the consequent trickling of blood down the trachea and bronchi without corresponding reflex attempts to prevent it. The fact that even after the administration of chloroform some irritation was produced in the larynx and about the palate by the blood, was the cause of the restlessness shown by the patient, but this diminished during the later stage of the operation, when the parts became more tolerant of the cause of excitement in them.

SINUSES FOLLOWING EXCISION OF KNEE-JOINT—SINUSES LAID OPEN AND SETON PASSED.

(Under the care of Sir W. FERGUSSON.)

This patient was a young girl of good appearance, but with a somewhat strumous aspect, who had undergone excision of the knee-joint, about twelve months previously, for synovial degeneration of the joint. Some sinuses now existed on the inner side of the anchylosed bones, which were laid open, and a curved and deep incision was made on the outer side, and some grumous-looking matter removed. A probe threaded with a seton dipped in carbolic water was passed from the outer to the inner side behind the extremity of the femur, and left to promote granulations.

Sir W. Fergusson said that this was an example of an excision performed under adverse circumstances, with abscesses around and sinuses extending high up along the thigh; still, as a case of excision, it had proved satisfactory, and the two limbs were now well-nigh symmetrical. There were three sinuses remaining, with some thickening about the parts; bony anchylosis was, however, quite complete. Formerly, in the early period of the history of excision, no allowances were made for such sequelæ, and amputation was frequently resorted to; but there could, he thought, be no doubt that excision, with such treatment for resulting sinuses or fistulæ as he had adopted, was infinitely preferable to the sacrifice of the limb.

LONDON HOSPITAL.

MR. MAUNDER'S CLINIC.

Among others are two cases of disease of the rectum. *Case* 1 is a young woman, about 25 years of age, who has been under Mr. Maunder's observation for two years, with tertiary syphilitic ulceration of the lower bowel. Neither mercury nor iodine has been beneficial, and at the present moment a sanguineous muco-purulent discharge is as copious as when she was first seen. On one occasion the bowels were locked up for fifteen days with opium, but without avail. The canal is gradually becoming narrowed. The question of lumbar colotomy may possibly be entertained.(a) *Case* 2 is a male, about 45 years old, the subject of scirrhous cancer, narrowing the bowel very much and encroaching upon the urethra. Incontinence of fæces and retention of urine exist. Little can be done to relieve this poor fellow at present. The bladder can be emptied by catheter, and there is not sufficient bowel-obstruction, nor pain, nor ulceration, nor hæmorrhage to justify colotomy.

Case 3, a female, 75 years old, has been in the Hospital more than five weeks with severe compound fracture of the leg. Sloughs and portions of bone have come away, and as a result, in great measure, of the care and attention bestowed upon the case by the House-Surgeon, Mr. Stanley Gill, there is every probability of a satisfactory issue.

Case 4 is a man of spare habit and sallow complexion, who, three months ago, had his ankles jammed in a door. Three weeks after a swelling arose. This swelling now occupies the front of the ankle-joint, and conceals to some extent both

(n) Hennig, "Ueber das den Verlauf der Schutzpocken begleitendes Fieber."—"Jahrbüch für Kindersheilkunde." Erster Band, p. 53. Wieuer. 1858.—William Squire, the *Lancet*, August 14, 1869, p. 228.

(o) "On Vaccination," etc., p. 17. London. 1868.

(p) Kuszmaul, "Zwanzig Birefe ueber Meu Sehenpocken ünd Kuhpockenimpfüng," p. 40. Frieburg. 1870.

(q) "Practical Observations on the Inoculation of Cow-pox." Edinburgh. 1802 and 1809.

(a) This has since been had to recourse to.

malleoli. It is painless, soft, and very elastic, but cannot be markedly diminished in size by direct pressure, as well as by compression of the femoral artery. It has a distinct expansive impulse, which ceases when the above artery is compressed. Mr. Maunder thinks the swelling consists of a mass of cells (probably soft cancer) very freely supplied with arterial blood.

Case 5 is a young man, 23 years old, who, four months ago, at sea, broke his thigh across the middle of the shaft. Little was done for the first month, but subsequently a starch bandage was worn for ten weeks. The limb is now three inches short and perfectly useless. The extremity of the upper fragment projects forwards, and is just under the integument; the end of the lower fragment is less prominent, but can be felt in the back of the thigh, and on rotation of the leg it moves quite independently of the upper fragment. The two ends are widely separated by a firm mass of inflammatory effusion. The questions of non-interference, of attempting to approximate the ends of the bone by operation, or of amputation if the latter fail, must be entertained.

WESTMINSTER GENERAL DISPENSARY.

[We are indebted to Mr. Sewell, the House-Surgeon, for notes of some interesting operation cases at this Dispensary.]

ABSCESS WITHIN OR AROUND THE SHEATH OF BRACHIAL PLEXUS, SIMULATING MEDULLARY TUMOUR—PUS EVACUATED—RECOVERY.

(Under the care of Mr. CHURCHILL.)

J. S., aged 36, a printer's pressman, had suffered for some months from severe gnawing or stabbing pains extending from the shoulder down the inner side of right arm and forearm to the tips of the fingers. He had been treated at other public institutions for rheumatism. He was admitted under the care of Dr. Waite, who, after inquiry into the antecedent history and occupation of the patient, found that the pain he complained of was deep-seated, and most severe about the neighbourhood of the axilla and supra-clavicular region. The elbow- and shoulder-joints were also at times very painful, which, associated with some pyrexia, probably induced the belief that the patient was suffering from subacute rheumatism. While under Dr. Waite's care he was treated with bicarbonate of potash, iodide of potassium, and opiates; but the most powerful local and general sedatives failed to procure relief from the severe pains in the course of the nerves. He had little rest day or night—in fact, the nocturnal exacerbations were most severe. Dr. Waite attended him at his own home, and in a week or two after the application of large poultices to the shoulder the pain became somewhat less severe. On tracing up with the finger the course of the ulnar nerve to the apex of the axilla, a firm, hard, deep-seated, circumscribed swelling could be felt, as also in the supra- and post-clavicular regions. The natural inference was that a tumour of rapid growth, implicating and pressing upon the nerves of the brachial plexus, was the cause of the deep-seated pain and pyrexia. Mr. Churchill met Dr. Waite in consultation, and, after careful examination, was unable to obtain any evidence of fluctuation. The rapid growth, the febrility, and the decided increase of pain at night led to the suspicion of inflammatory mischief, although unaccompanied by local increase of heat or tenderness. The tumour was punctured with a large trocar and canula, and about two ounces of pus evacuated. The patient was instantly relieved, but the stabbing pains continued very severe. It was evident that pus was reaccumulating in the sac of the abscess, and about a week later Mr. Churchill made a more extended incision, and gave free vent to the pus. The scalene muscles near their attachment to the transverse processes of the central cervical vertebræ were included in the abscess, which was now somewhat diffuse. The abscess healed from the bottom in the course of a few weeks, and his health rapidly improved. He was dismissed cured two months later.

FATTY TUMOUR IN THE SITUATION OF RANULA BENEATH THE TONGUE, SUCCESSFULLY REMOVED FROM AN OLD MAN 86 YEARS OF AGE.

(Under the care of Mr. CHURCHILL.)

H. T., aged 86, of strong constitution, but with marked senile atrophy and arcus senilis, was admitted under the care of Dr. Waite for eczema rubrum of the leg, dependent upon venous obstruction of the cutaneous capillaries on the anterior aspect of the leg below the knee. The incisive teeth in lower jaw were intact, and situated just behind these was a movable, apparently pedunculated tumour, about the size of a walnut. The surface of the mucous membrane was smooth and uniform; it was becoming chafed and painful from friction against the sharp edges of the teeth. He had noticed the swelling for twenty-two years; but, according to his own account, it became somewhat diminished in size after clear fluid had squirted out of it. This statement led to the suspicion of ranula. Probably, however, the fluid did not escape from the ranula-like cyst, but from the temporarily obstructed follicles of the sublingual gland. He was afraid that the tumour was "a cancer." The sac being opened, and the tumour exposed, it was carefully dissected out.

Mr. Paget mentions having removed a fatty tumour simulating ranula, which appears to have resembled this in almost every particular. It may now be seen in the Middlesex Hospital Museum. Mr. Churchill's tumour was about a quarter of an inch longer than Mr. Paget's—*i.e.*, one inch and three-quarters in length. There is no such tumour in the Museum of the Royal College of Surgeons, and it is doubtful if there is another specimen in London. (For a full description of the microscopic character and pathological import of this tumour, *vide Medical Times and Gazette* for December 23, 1871.)

Remarks by Mr. Churchill.—The benign character and slow growth of lipomatous and encysted tumours, especially in this situation, together with the exceedingly rare occurrence of a lipoma simulating ranula, are sufficient to justify the diagnosis formed in this case. Then, again, the occasional squirting of fluid from beneath the tongue, as described by the patient, appeared *inter alia* to justify the diagnosis formed of the fluid character of the tumour. It would seem that the remarkably inappropriate term "ranula" has been indiscriminately employed to characterise tumours of a totally different nature and rapidity of growth. Mr. Holmes Coote describes ranula as "a fluctuating, semi-transparent, livid-blue swelling, situated under the tongue" (Holmes' "Surgery," vol. iv., p. 223). Such a definition is aptly descriptive of the cystic tumour of the sublingual gland, usually understood as ranula. But if we are to include under this head, as Mr. Coote has done, various encysted growths in the floor of the mouth, as "enlarged bursæ which may extend down the neck" (*op. cit.*, p. 224), such a definition cannot be held descriptive of growths originating in so many various ways. "Some cysts, as many ranulæ, should not be retained in the list of tumours," says Mr. Paget, "for their growth appears to be due only to the accumulation of the contents of the tube or sacculus." Bearing in mind the anatomical relationships between the submaxillary and sublingual glands, it seems right to conclude that structurally and physiologically each constitutes an inseparable part of the salivary apparatus. If we trace up the Whartonian duct from the submaxillary gland round the border of the mylohyoid muscle, we find that, after passing over the vertical muscles of the tongue, it is joined by the Bartholinean duct, which issues direct from the sublingual gland of the same side. The common ejaculatory duct for the two opens into the floor of the mouth just behind the incisive teeth. There are, in addition, numerous short ducts of the sublingual gland which discharge their contents directly into the mouth. It would seem, however, desirable that some well-defined distinction should be made between the semi-transparent, livid-blue swelling indicating simple obstruction and dilatation of a salivary follicle or duct, and the large encysted growths occurring in the floor of the mouth, usually from obstruction of the Whartonian duct. Mr. Coote states that cysts may form in this situation from four sources: dilatation of Whartonian duct, of a sublingual duct, of a mucous follicle, or of a bursa mucosa. As some reference has been made to the time which these tumours take to grow, it would appear by the accounts given of similar cystic formations, especially where so deep-seated as this, that some have taken many years to develope.

MELANOTIC PEDUNCULATED GROWTH DEVELOPED UPON A MOLE—EXCISION—RECOVERY.

(Under the care of Mr. CHURCHILL.)

E. W., aged 45, had noticed a slight button-like elevation of the skin over the lumbar spine from childhood. It was of a dark brown colour, flat, and smooth. In July, 1870, she fell downstairs and injured her back. The mole-like growth, which had previously remained stationary, now increased rapidly. Two months later, the tumour was as large as a grape, prominent, and pedunculated; a watery discharge oozed out from the base. She had failed to strangulate it by twisting a silk thread round the neck of the tumour. The growth was removed by including it in a spindle-shaped incision through healthy integument wide of the growth. There has been

no recurrence up to the present time (eighteen months after the operation). The surface of the tumour was rough and nodulated, mottled of a dark grey colour. It was attached to the skin by a very narrow peduncle. It was distinctly papillated, the margins of a cut section presenting a festooned outline, with a fasciculated arrangement of light and dark columns of cells radiating towards the circumference. (For a minute description of the structure of the tumour, and a lithographed plate, *vide* Pathological Society's *Transactions*, vol. xxii., p. 315.)

CONSTITUTIONAL SYPHILIS FOLLOWING PRIMARY SORE ON THUMB OF MEDICAL STUDENT—MERCURIAL VAPOUR-BATHS ADMINISTERED IN BED—CURED.

(Under the care of Mr. CHURCHILL.)

T. L., a Medical student, attending at the Westminster General Dispensary, had a chancre form on the palmar surface of the left thumb, probably from accidental auto-inoculation through an open dissection-wound.

[We have deferred the further consideration of this important case till next week.]

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Medical Times and Gazette.

SATURDAY, FEBRUARY 10, 1872.

ENDEMIC SKIN DISEASE AND CIVILISATION.

Dr. Tilbury Fox and Dr. Farquhar have proposed a "scheme for obtaining a better knowledge of the endemic skin diseases of India," and in so doing they have done well. Their scheme which is to be widely circulated amongst Medical officers and Practitioners in India, in the colonies, and, we hope, wherever else an English population supports European Doctors, consists virtually of a list of those skin diseases which are least known here and most prevalent abroad, of a series of memoranda calculated to show the present state of our knowledge or want of knowledge of each, and of questions which, if answered as they should be, will throw light on many a dark and disputed question of identity or want of identity, and may clear up the fog of different names which are applied to the same disease in different districts. More especially, the etiology of skin disease will be enlarged and deepened if the proposed scheme be put into execution; and in connexion with this we are led to make one or two remarks.

When inexperienced and flabbily-mentally-constituted young gentlemen engage in writing sensational essays for the press, there are two commonplaces sure to be brought forward. One is the benefit of a life according to "nature"; the other is the evils of "civilisation," including what are called "artificial" food, hours, clothing, customs, and so on. Shoes and stockings, tight stays, chimney-pot hats, "chokers," and the like, all fall under one condemnation, and probably they often deserve it. Indulgence in too luxurious a diet is another favourite topic of condemnation, and especially too white and fine a bread—bread cleansed of that husk which these insipid prophets tell us "Nature" intended us to eat, but which sensible people usually give to the pigs, unless they have some good motive for eating it themselves. But, *per contra*, we do not hear so often as we should of the benefits we reap from some of the "artificial" habits of modern times—amongst others the diminution of inveterate skin diseases. On this point the "scheme" before us presents some readable and interesting information.

Our readers are aware of two diseases mixed up under the name lepresy. One, the elephantiasis Arabum, or "big leg," "scrotal tumour," etc., consisting in general hypertrophy of the skin and subcutaneous tissue, usually following a malarious febricula with inflammation of the lymphatics; the other, the true leprosy, or elephantiasis Græcorum, consisting in tubercular growths of granulation tissue in the skin, with degeneration of its texture, and in the nerves with production of anæsthesia. This latter is the true leprosy, for which lazar-houses were established by our forefathers.

In the first place our authors establish a distinction between the *origination* and the *propagation* of leprosy. What gives rise to it originally is one thing; but the conditions under which it is propagated amongst a population is a far different question. And the same distinction has to be made with respect to most zymotic and communicable diseases; for it is one thing to say that scarlet fever, for instance, may be conveyed by sewage vapour, but quite another (though possibly true) that it had its first origin from this source. The same with the first cause of syphilis.

Our authors express a decided opinion that leprosy was introduced into England by the Crusaders who returned from the East; that it was propagated by intercommunication of the leprous with the healthy; and extinguished by the segregation of the infected, which was carefully enforced by Church and State. It is "refreshing" to find so disputed a question as the communication of disease treated with a firm hand. The strongest case in favour of its propagation is derived from the Sandwich Islands, where the disease cannot be traced back beyond 1848. In that year the disease was brought in by the Chinese. Now there are 250 lepers, or 3½ per 1000 of the population. There are no inherent causes for the *origination* of the disease. The climate is healthy, and food and clothing abundant; but the natives do not avoid association with the lepers. In like manner, in Madagascar, so long as the laws excluded lepers from society the disease was dormant; now that these laws have fallen into desuetude, "it has spread," says Dr. Davidson, "to an incredible extent."

The propagation, then, of leprosy is effected in the same way as that of small-pox, syphilis, or cholera—by something that emanates from the person affected. But what is its original cause? Two have been alleged—climate and diet. But with regard to climate, the disease seems to prevail in every variety, from the Arctic circle to the equator, though it (like every other disease we could name) is unquestionably more intense in malarious spots in hot climates.

But next as to diet. Is a fish diet the cause? The answer is, that it undoubtedly prevails on many sea-coasts, and amongst filthy—rancid—oily—fish-eating populations; but it prevails, likewise, where no fish is to be had. Again, is it the result of a diet of vegetables which contain not enough potash? This seems possible, because leprosy is unknown in Ireland, and, on the other hand, has become less frequent in Iceland, says Dr. Hjaltelin, since the introduction of the potato.

"The use of grain grown on uncultivated land," say our authors, "is a matter that demands every consideration." This is a curious subject—new to us, and on which we may quote some interesting facts. They show that "India" is a term

involving the greatest variety of climate and of race. There is the "Bengalee living in a humid, steamy, and malarious atmosphere all the year round, and feeding almost exclusively on rice and fish." There is the Rajpoot on his dry, sterile soil, living on wheat and dhal. The Puthan lives in a colder, higher, and rainier district, living on wheat and flesh; and amongst these it is found that a liberal diet is the best means of holding leprosy in check. But with regard to grain from uncultivated land—

"A grain merchant, who came to Dr. Farquhar's Dispensary in the cantonment of Scalkote, suffering from leprosy, stated a fact in regard to his food of much significance. The village he lived in was surrounded by cultivated land, the wheat-grain from which he was in the habit of receiving for sale. In the neighbourhood, however, there were vast tracts of uncultivated land, over which a nomadic race, living in tents, wandered with their flocks. When rain fell plentifully in any particular spot at a propitious season of the year, these people set about turning up the soil, to the depth of an inch or two, with primitive ploughs, consisting of stout sticks burnt at one end, and tied on to bullocks by strings.

"The wheat-grain was then cast into the ground, covered over, and in due time yielded corn. The area thus sown was too great for the few people to reap the straw from, so only the ears of corn were plucked from the stalks and gathered into sacks. The grain seller added, that he bought this inferior-looking grain from these people, and because his customers, as a rule, disliked it, he lived upon it himself, and sold all his good grain. The idea struck Dr. Farquhar that this uncultivated and poor grain might have something to do with the leprosy, and following up the thought, he found in other parts of the country what appeared abundant proof of leprosy being associated with the consumption by the population of inferior grain. He found the disease to be common in another district in the Punjaub, where a large uncultivated plain was near to a long line of villages, near a cultivated district. This plain was sown only at intervals of a year or two, when the rain fell, and no manure or other care beyond the ploughing and reaping, as above described, was bestowed on the soil.

"Leprosy, Dr. Farquhar noticed, was comparatively absent in those districts of India where there was long-established cultivation of a higher order, where the fields are properly cared for and manured, and where man lives industriously by 'the sweat of his brow.'

"In the rice country of Bengal, where cultivation has been long established, there appeared to be an argument against the 'uncultivated grain' theory of leprosy. On inquiry, it is found, however, that the Bengal ryot exhausts his soil by drawing yearly sometimes three crops from it, and that the grain (rice) produced at one season of the year is known among the people to be unwholesome.

"In the Upper Provinces of India, where unleavened cakes of wheaten flour form the staple of the food of 60,000,000 or 80,000,000 of people, *calculus vesicæ* is a very common disease, while, in the rice-feeding 30,000,000 of Bengal Proper, this affection is comparatively very rare.

"The extraordinary statement, also, that in the 'Patna' district of Bengal leprosy exists in a large proportion of the population in a slight form, should be further and specially investigated and reported on.

"It may turn out, after all, that the use of grain grown on uncultivated land is not of much moment in regard to the cause of leprosy; and that it is only coincident with residence in an undrained and marshy (malarious) locality, which, also, may have nothing to do with the genesis of leprosy. Some observers declare that the subsidence of leprosy and ague go on *pari passu* with the introduction and extension of drainage in localities in which leprosy has been endemic.

"The late Dr. Kinlock Kirk supposed, as the result of his observation, that the use of the leguminous seeds, common in India under the name *dál*, is capable of giving rise to something like leprosy."

So far, all the evidence as to leprosy bears witness to the benefits derived from civilisation—in the careful culture of the soil, the selection of fine grain, and the general improvement which results from artificial methods of culture. Under a second head, we might descant on the protective influence of clothing; under a third, the protection that might be afforded by that artifice a filter, in order to purify water from the host of animal and vegetable parasites which it contracts when left to the care of "nature." But we have said as much as our limits allow, and only hope that the Practitioners to whom this volume is sent will assist in solving the questions it puts before them.

PROVIDENT DISPENSARIES AND THEIR EVILS.

Some little time ago the Charity Organisation Society held a conference in the house of the Society of Arts, the subject of discussion being, "The best methods of checking the Abuses now incidental to Out-patient Hospital Relief, with special reference to the expediency of extending the Provident principle." Such was the programme; and on the telling platform of Hospital abuses there were some speeches from men to whom we might well listen—men of good Professional standing, of high social position; but hardly, nevertheless, men of genius. We are no devoted advocates of the so-called Provident system, and, frankly, we have no great confidence in the regeneration of the British working-man at the expense to himself of something like three-halfpence a week. But neither are we so hugely enamoured of the present system of out-patient departments and Dispensaries as to maintain either their perfection or their perfectability.

First, as to the vices of out-patient departments, against which the great outcry is raised. We are convinced that these are not nearly so much abused as are the Dispensaries connected with no Hospital; and for much that is bad the complainants have themselves to blame. It is worthy of notice that a goodly number of men possessed of vast experience have carefully held aloof from this agitation, partly because talkee-talkee will not mend matters, and partly from the well-known fact that it began with those most culpable in fostering the abuse of charitable institutions. Those who have joined in the cry say, "People come to Hospitals and are treated who should not do so." This nobody is prepared to deny, but the remedy is simple—Don't see them! Assuredly the authorities will hold the officers scathless for so doing. They say, "So many people come, only a few moments can be bestowed on each;" again we say, "Why see so many?" And there is one rule all-important: never on any pretence sign a certificate. But in the meantime we have to do with the system which some propose to substitute for those named Provident Dispensaries.

Now, so far as we can make out, there are certain Medical evils connected with the Provident system, as ordinarily worked, which are fairly well represented in the following document, which has been forwarded to us, we presume, for publication:

"ROYAL VICTORIA DISPENSARY, NORTHAMPTON.

"*Statement of Result of Operations for the Year* 1871:—At the meeting of the Committee of this Institution, held on January 12, the Honorary Secretary reported that the total number of paying members during the past year was 5578, representing 12,820 persons who were entitled to receive Medical relief from the institution.

"The amount contributed by these parties was £2005 16s. 8d., a larger amount than had ever been subscribed before. Out of this sum a portion had been applied towards the general expenses, as provided by the rules, and £267 4s. 10d. had been paid for drugs and corks. The net balance was divisible amongst the Medical officers in the following proportions:—

	£	s.	d.
Dr. Barr	730	6	9
Mr. Moxon	511	1	11
Mr. Evans	378	4	9
	£1619	13	5

"This sum represented, therefore, the net remuneration of the Medical officers for the year, after deducting all expenses. The Secretary also reported that the Honorary Fund, which last year exhibited a deficiency of nearly £40, was now out of debt.

"The detailed report will be presented as usual at the annual meeting in February."

Here we have the working of, probably, the largest institution of the kind in the kingdom, and it reveals a state of

things which is at least instructive. Northampton is not a very large town, and it is not a very rich town. It is the head-quarters of the shoemaking trade, so that it contains a large number of artizans earning fair wages. We read that already more than 12,000 of these, including their wives and children, are entitled to Medical relief from the institution; and we have seen it stated that, according to the rules of this institution, about 30,000 of the inhabitants of the town are in a position to entitle them to its benefits, provided they become paying members. As a result of their labours, three Medical men divide among them the sum of upwards of £2000, giving them from this source alone incomes decidedly above the average of English Professional earnings. But what becomes of the other Practitioners in the town? This Provident Dispensary apparently absorbs—or is ready to absorb—in its all-devouring maw most or all of the working population of Northampton. These three Practitioners cannot do all the work; they are not inclined to add to their number, but rather to do the work by underpaid assistants. In short, we see this so-called charitable institution erected into a monopoly for the benefit of those connected with it, and to the exclusion of all new-comers. This surely is a perversion of charity not contemplated by those who look on such institutions as a panacea for pauperism and all the unnumbered woes.

To look at this matter from another point of view, we take it for granted that the institution in question would be called a charity. On whom, then, is the charity bestowed? Surely on the gentlemen who are supplied with the means of carrying on practice from funds not coming out of their pockets, and thus enabling them to compete advantageously with their less fortunate brethren. If these things are good for the public, they are not good for our Profession, which is thereby pauperised with a vengeance.

For carrying on these institutions aright two things are absolutely necessary—first, a thoroughly efficient committee, prepared to find out exactly the position of everyone who applies for admission to the benefits of the institution. In a place like London such an inquiry is hardly possible, however easy in narrower localities. Still more important is it that all the Medical men of a town or a district shall be on an equality, so far as the institution is concerned, so that the patient may apply to any Medical Practitioner he or she thinks proper; without this, those not belonging to the institution must be infallibly handicapped in the race of life.

THE WEEK.

TOPICS OF THE DAY.

The prospects of Medical legislation in the present session of Parliament are not at present as good even as in the last session; and yet, we believe that a short and simple Act, which would enable the different Corporations and Universities in each division of the kingdom to combine, without prejudice to each other, for the purpose of forming a Conjoint Board of Examinations, which would reduce the number of members of the General Medical Council, and would provide more stringent remedies against the illegal assumption of Medical titles, would be an enormous boon to the Profession. The danger, however, in appealing to Parliament is that an endeavour would certainly be made by one party to place the Profession under a department of Government, and by another to introduce the direct representation of the Profession into the General Medical Council. As we should regard the realisation of either of these projects as a great disaster, we confess that we are not sanguine or particularly anxious for immediate Medical legislation. The Profession has waited so long that it may well wait a little longer. Better to bear present ills than to fly to others which we know not of. If the Corporations and Universities of the three kingdoms were actuated by the interests of Medicine as a Profession rather than by their own—if they would be content to combine on fair and equal terms, and not endeavour to impose conditions which they know will be distasteful on other Corporations—Medical legislation would be unnecessary; the Profession would reform itself. But whilst the endeavour seems to be on the part of each Corporation to subserve exclusively its own interests rather than those of the Profession at large, and to exalt itself by endeavouring to depreciate or extinguish its rivals, we confess that we can only look to the action of the Legislature for an equable settlement. But, as we have already said, our condition is one that may be made far worse by over-medication than by expectant treatment.

The Syndicate of the University of Cambridge appointed to consider various questions connected with the study of Medicine and Medical legislation have recommended that the sanction of the Senate be given to the scheme for a partial Conjoint Board drawn up by the Royal College of Physicians of London and the Royal College of Surgeons of England. Friday, the 9th inst., was fixed for the meeting of the Senate, when the report of the Syndicate would be discussed. We notice amongst the list of signataries to the report of the Syndicate the name of Dr. Paget, the President of the General Medical Council. It cannot, however, be too widely known that, should the General Medical Council, over which Dr. Paget presides, give its sanction to this scheme, it will favour the formation of a body of Practitioners who will possess no Surgical diploma, or will encourage all English Medical students who are not desirous of taking the diploma of the London College of Physicians to travel to Scotland or Ireland for a diploma from the Scottish or Irish College of Surgeons. We may be pretty well assured that whatever Conjoint Scheme may be adopted in Scotland and Ireland, it will not be of a kind to exclude English Medical men who can pay the necessary fees from obtaining Surgical diplomas in Edinburgh or Dublin. But we ask whether this is a state of affairs which the General Medical Council is prepared to countenance? Will it be in accordance with its previous policy, or with the spirit of the Act of 1858, which it was called into existence to administer?

A Congregation of the University of Oxford have accepted a resolution in favour of the scheme by a majority of seventeen to ten. The opponents of the resolution objected to any abandonment of the ancient privileges of the University and to Medical trades-unionism. The Vice-Chancellor explained that the resolution was of the nature of a *Prejudicium*, and that details would have to be settled by subsequent statute.

The Senatus Academicus of the University of Aberdeen has circulated the following Minute relative to a Conjoint Examining Board in Medicine and Surgery for Scotland. It will be seen that the authorities of the University of Aberdeen are by no means agreed with those of the Edinburgh College of Surgeons as to the object and scope of the proposed Conjoint Examination:—

"In consequence of the recommendation of the General Medical Council, of date July 7, 1871, urging the formation of Conjoint Examining Boards, the Senatus has again taken the matter into its consideration. A Committee was deputed to meet and confer with representatives of the other Medical authorities of Scotland. While a general concurrence was found to exist as to the possibility of forming such a Board, it appears that considerable difference of opinion exists in regard to what the nature of the proposed Examination should be, some being of opinion that it should be restricted to a Clinical Examination. The view as to this point taken by the Senatus is, that, while Clinical Examination should form part of the final Examination, a Clinical Examination merely would not be sufficient, and scarcely a fair test of a student's work in connexion with the various departments of pathology and practice. It appears to the Senatus that the draft scheme already, it is understood, agreed on for England by the Universities and Corporations of England, is a well-considered one, and might safely be taken as a basis in the formation of a Board for Scotland.

"The Senatus desires it to be understood that it adheres to the view formerly expressed, that the evils complained of in regard to Medical licensing may be met simply by the combination, under the 19th clause of the Medical Act, of the Medical and Surgical Corporations, to form an Examining Board in each of the three divisions of the kingdom, thus conferring a complete qualification, while those who sought the higher qualifications conferred by the Universities would, as at present, register on their degrees. It appears to the Senatus to be not only unnecessary, but oppressive, to subject the University graduate to the expense and inconvenience of having, in addition, to pass a minimum examination, as a sacrifice merely to the name of uniformity. But if it must be so, it is reasonable that this hardship to the University graduate should be reduced as much as possible, and that, accordingly, under any scheme, the provision formerly proposed shall be secured—that his University examination in the fundamental sciences shall be accepted, and that he shall be admitted to whatever examination of the Conjoint Board he is to be required to pass on payment of a small fee.

"In the event of its being considered expedient to form a Conjoint Board for Scotland, before which University graduates shall be required to appear, the Senatus would approve of its being formed in accordance with the following conditions:—

"1. That a Conjoint Board be formed by the co-operation of the Universities and of the Medical and Surgical Corporations of Scotland, for the purpose of testing the knowledge of Medicine and Surgery, and the ability to practise them, possessed by candidates for registration; and that no degree or diploma entitling to registration shall be issued except to those who have passed the examination of the Board.

"2. That every matriculated student of a University who shall have completed the curriculum of study, and shall have passed an examination or examinations at his University in the fundamental sciences, shall be admissible to the examination by the Conjoint Board on payment of a fee not exceeding five guineas.

"3. That a Committee of Management be chosen, to consist of an equal number of representatives appointed by the Universities and the Corporations.

"4. That the Committee shall have power to fix the number of examiners, the period during which they shall hold office, the times and places of examination, and the division of the subjects, and shall elect as examiners the most competent men who can be found. That no member of the Committee shall be eligible as an examiner.

"5. The Senatus sees no objection to the proposal that candidates who are certified to have passed the first Professional examination of the Conjoint Board in one division of the kingdom, should be admissible to the final examination of the Conjoint Board of either of the three divisions of the kingdom."

The representation of the Society of Apothecaries in the General Medical Council, vacant by the resignation of George Cooper, Esq., F.R.C.S., has been conferred by the Master, Wardens, and Court of Assistants on Mr. E. Bradford, F.R.C.S., Deputy Inspector-General of Hospitals, late Chairman of the Court of Examiners, and Honorary Surgeon to the Queen.

The Queen's speech, in a paragraph of two lines, which follows at the tail of "Education in Scotland," "the Regulation of Mines," "the Amendment of the Licensing System," "the Superior Law Courts," "the Ballot," and "Administrative Improvement for Ireland," promises that "legislative provisions, founded on the Report of the Sanitary Commission," will be laid before Parliament. We have no doubt that, in the eyes of her Majesty's Government, sanitary matters are of infinitely less importance than the Ballot Bill. The illness of the Prince of Wales, however, has taught a lesson which is not yet forgotten by Parliament or by the people; and unless there be any political convulsion which will frustrate all chance of domestic legislation, we may reasonably expect an important Sanitary Reform Bill in the present session.

The *Cheltenham Examiner* of February 3 contains a copy of a Declaration on Alcohol, signed by Dr. Rumsey, Sir William Linton, and the leading members of the Profession in Cheltenham, which we observe commences with an important modification of the text of the unlucky Declaration which was fathered by the officers of a temperance society and the editor of a Medical contemporary upon the Profession in London. The chief modification which the Cheltenham Medical men have adopted was suggested some weeks ago in this journal, and completely changes the character of the Declaration. The first sentence of the original Declaration, it will be remembered, implied a libellous charge on the great body of Medical Practitioners. This characteristic is obliterated by the substitution of the words "frequently asserted" for "believed" in the first line of the sentence, and the word "would" for "should" in a subsequent line. The sentence in the Cheltenham Declaration is perfectly unobjectionable. It stands thus:—

"As it is *frequently asserted* that the inconsiderate prescription of large quantities of alcoholic liquids by Medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain cases of disease, are yet of opinion that no Medical Practitioner *would* prescribe it without a sense of grave responsibility."

The Declaration of the Cheltenham Medical men is defensive; its London predecessor was simply offensive.

A Mrs. Robinson, residing in the Lewisham Union, has been fined £5 and £2 costs, or, in default of payment, one month's imprisonment, for sending her servant, who was suffering from small-pox, in a cab to the Lewisham Union without giving notice to the proprietor of the cab of the nature of the case. The cab was used for ordinary purposes on the same day.

Sir William Gull has, it is announced, purchased the estate of Relugas, in Morayshire.

PHYSIOLOGY AT THE ROYAL INSTITUTION.

In his second and third lectures on the Circulation, Dr. Rutherford showed some beautiful experiments upon the heart. The motions of the frog's heart and Cyon's experiments upon the effect of heat upon the movements were demonstrated by means of the electric light. The shadow of the beating heart was thrown upon a screen; and the acceleration of the cardiac action by heat, and the retardation produced by cold, were thus rendered evident to all. The rhythmical action of the auricles and ventricle of the frog's heart was demonstrated by means of mirrors and the electric light. From a small mirror moved by the auricles, and from another moved by the ventricle, a beam of light was reflected upon a screen, and the order and duration of the motions exhibited in the most striking way. The inhibitory action of the vagus was also demonstrated in the same ingenious manner. The innervation of the heart was discussed, and the circulation of the blood in the frog's web demonstrated upon a screen by means of a microscope and the electric light. This exhibition, together with that of a number of beautiful transparent injections of bloodvessels of the different organs and tissues, demonstrated in the same brilliant manner, formed one of the most novel and startling demonstrations ever given at the Royal Institution. It appears, however, that this mode of demonstration is only suited for things which do not require a very high magnifying power. The want of light prevents the use of the higher powers. Nevertheless, from this demonstration we know that very much of the structure of the body can be satisfactorily shown in this way. No diagrams could compare with the beautiful pictures of the spinal cord, brain, lung, liver, kidney, skin, intestine, tongue, etc., which were thrown upon the screen. Many of the injections were prepared by Dr. Carter, of Leamington, who had lent them for the occasion.

PROFESSOR ESMARCH, OF KIEL.

We learn on excellent authority that Professor Esmarch, of Kiel, the son-in-law of Professor Stromeyer, and well known amongst us by his work on the "Use of Ice in Military Surgery," is about to be married to the Princess Henrietta of Schleswig-Holstein, sister of Prince Christian, who married our Princess Helena.

THE MEDICAL SOCIETY OF LONDON.

At a meeting of this old Society, especially convened for the purpose, it was decided that the following congratulatory address should be presented to her Most Gracious Majesty the Queen :—

"We, the President, Council, and Fellows of the Medical Society of London, in special meeting assembled, desire to approach your Majesty with feelings of deep thankfulness to give utterance to our humble and earnest congratulations that it has pleased the Almighty to raise up his Royal Highness the Prince of Wales from a bed of sickness; and thus to avert from your Majesty's House, and from your Majesty's loyal people, a calamity, of which the possibility had filled all hearts with apprehension. We rejoice that it has been the privilege of honoured members of our own calling to be the instruments, under Providence, by which this great blessing has been conferred upon the nation; and we pray that the Great Disposer of the issues of life and death may extend His continued protection to your Majesty and to his Royal Highness, and that your Majesty may long reign over a devoted and loyal people.

"Signed on behalf of the Council and Fellows of the Society, "Andrew Clark, M.D., President.

"George-street, Hanover-square, January 20, 1872."

RESIGNATION OF ONE OF THE MEDICAL OFFICERS TO THE QUEEN ADELAIDE DISPENSARY.

Dr. Welch, of the Hackney-road, has resigned the office of Physician to the Queen Adelaide Dispensary, after seventeen years' connexion with that institution. The reasons of Dr. Welch's resignation are—first, that he was prevented from seeing his patients by the Rev. Mr. Coke, the visitor, on one occasion, on the ground that he (Dr. Welch) had attended at the Dispensary at ten o'clock instead of at 9 a.m.; and, secondly, that the Rev. Mr. Coke, as Chairman of the Committee, had said to Dr. Welch—"I do not know if you are aware of it, but for some time past I have given orders that your prescriptions should not be dispensed with the medicines you prescribe, because they are too expensive." We need not say that under these circumstances Dr. Welch was justified in sending in his resignation; in fact, if he had not done so, he would have been wanting in his duty both to himself and his patients. We should think the Governors of the Dispensary will not let the affair rest where it is.

THE DUTY OF THE CORONER.

Dr. Lankester lately held five inquests at the "College Arms," St. Pancras, four of the cases being those of paupers in the St. Pancras Workhouse. It appears that the St. Pancras Guardians have complained to the Middlesex magistrates that unnecessary inquests have been held. The Clerk of the Magistrates had told them that, unless the expense of the inquests in Dr. Lankester's Court were diminished, he should recommend the magistrates to lay the case before the Home Secretary. Dr. Lankester asserts that he is in nowise responsible to the Home Secretary; and although the Coroner attended the meeting of the magistrates to rebut the charge of the Guardians, but could not be heard as having no *locus standi*, he is as independent of the magistrates as of the Home Secretary. Dr. Lankester, in addressing a jury on the subject, said:

"He reminded them of the inquiries he instituted three years ago into the disgraceful state of the St. Pancras Workhouse, and the amount of good he had effected. He did not regard an investigation by Government inspectors as worth anything at all. He asked them to look at the result of the Hampstead Small-pox Hospital inquiry. Government inspectors conducted it, and Government men defended officers appointed in all such Government inquiries. He thought it right to say that that inquiry would never have taken place at all had not he and a jury held an inquest on the body of a child who had died in the Hospital; and when they went to view the body, another body was shown them, the real child having been buried in the confusion. Another child had either been buried or lost, and had not been found yet. He found out that in several cases persons had been found dead in that Hospital, and it was the duty of the Medical officers to report all such cases to him; but instead of that they buried the bodies. Was it not the duty of the Coroner's Court to find out the cause of all sudden deaths? He had written to the Commissioners, pointing out the neglect of the Medical officers, and the Commissioners, in their report on the late inquiry, never referred to that fact. There was an attempt, on the part of persons in authority, to screen their improper practices from the public by excluding the action of the Coroner's Court."

SMALL-POX JOTTINGS.

Five new cases of small-pox in the Medical district of Islington were reported during last week. There had been two deaths as against one the week before.——Mr. Abel Heywood, jun., read a report to the Manchester Board of Guardians, last week, on the small-pox cases treated in the Canal-street Hospital, in which it was shown, that while the mortality among unvaccinated patients was 55⅓ per cent. of the total number attacked, it was only 4½ per cent. in the case of those who had been vaccinated.——Small-pox is rapidly diminishing in Rome.——In Aberdeen, since the outbreak of small-pox, the deaths amount to 50. In the Infirmary and Small-pox Hospital there are 70 cases, and in private practice 30; total 100. As usual, the popular impression greatly exceeds the fact; at the same time, these figures, which include the city, but not the suburbs, are formidable enough, and few parts of the town have been or are exempt from the disease, which has been no respecter of persons as to age, sex, or social status.——The Registrar-General, in his quarterly report ending December 31, states that small-pox, owing to defective administrative arrangements, was, in spite of the Compulsory Vaccination Act, more fatal than any other epidemic; of it more than 6000 died, chiefly children.——In Marylebone four small-pox patients were removed during last week from the parish to the Hospital. Mr. A. Emery, of 66, Great Portland-street, was fined 20s. and costs for refusing to have his child vaccinated.——At Limehouse, during the past fortnight, four deaths occurred from small-pox, and nine fresh cases are reported.——Ten deaths from the disease were reported in the last fortnightly return to the Camberwell Vestry.——The Medical Officer of St. George's-in-the-East, in his return to the Vestry, states that "during the past month small-pox had in no instance been fatal."——At Sheffield twenty-four cases of small-pox were reported in the workhouse, against forty-two the week before. The stipendiary magistrate, Mr. Davis, in giving judgment a few days since on a small-pox prosecution, said he had learned on the best authority that the town was in a frightful state, in consequence of the filthy and neglected condition of the ashpits and closets. It would be the duty of someone to apply to the authorities in London, unless some very vigorous efforts were made by the local sanitary authorities.——Dr. Lankester reports to the St. James's (Westminster) Vestry two deaths from small-pox, and since the last report sixteen new cases had been brought under notice, making in all 266 cases and thirty-seven deaths since the outbreak of the epidemic. He adds—"The epidemic still rages in the parish, and was as far off cessation as in the month of May last year. As no efforts were being made to prevent its extension by the Government, they might expect the disease to continue its ravages."——In the Homerton Small-pox Hospital during the past fortnight, there have been sixty-four admissions, seventeen deaths, and fifty-two discharges, the number remaining being 120.——In the Stockwell Small-pox Hospital in the same period there had been ninety-eight admissions, and there were now 195 patients, being a large increase upon the preceding return.——At the Hampstead Hospital during the last fortnight 115 fresh cases were received, and the number remaining was 245, as against 279 at the last report.——Small-pox has broken out at Toddington, Bedfordshire. Several deaths have already occurred.——The disease has also appeared at Leamington and Warwick.——

Small-pox is greatly on the increase in Leeds.——The *Oswestry Advertiser* observes, "from returns presented to the Directors of the Oswestry Incorporation, on Monday week, that of 2662 children whose births were registered in the Incorporation in 1868, 1869, and 1870, only six cases of default in vaccination are returned. A clearer bill, we imagine, could be returned by no union in the country. The Anti-Vaccination Association must look elsewhere for facts and victims, and allow us to congratulate ourselves that we are so well protected against small-pox."——At Kettering, since the commencement of the small-pox epidemic in October last, there have been 200 cases, nineteen of which ended fatally. The opening of the Hospital has been attended with the most satisfactory results; the disease has since gradually declined. Only five out of the nineteen deaths presented any satisfactory evidence of vaccination. A striking piece of evidence of the value of revaccination is that in families were the disease had broken out revaccination has uniformly prevented its further spread, whereas in families where this precaution had not been taken the exact opposite has been the invariable result. There are now only ten cases under treatment in the town and ten in the Hospital, most of whom are convalescent.——In Berlin during the week ending the 1st inst. there were sixty-six deaths from small-pox; in the two previous weeks the numbers were 107 and 109.——In the metropolis last week fifty-two deaths from the disease are reported, as against ninety the week before.——Dr. Aldis, St. George's, Hanover-square, reported two patients, both vaccinated, in the in-wards.

TYPHOID FEVER AND BAD DRAINAGE.

Several of the persons employed in the winding-room at the mill of Messrs. Woods and Hampson, Swillbrook, Preston, were, a few days ago, taken suddenly ill, and compelled to cease work. An examination of the premises revealed the existence of a very defective drain, from which noxious and, in this case, deadly exhalations were emitted, filling the whole atmosphere of the room, and rendering it highly poisonous. Medical aid having been obtained for the sufferers, it was found that they were all in a highly dangerous state of typhoid fever. One of the young women, Alice Christian, aged 19, has just died in the Preston House of Recovery, and three others have succumbed to the deadly effects of the gases at their own homes in Walton-le-Dale and the neighbourhood. Seven others have had narrow escapes, if indeed they are yet out of danger. On the discovery of the cause of these fatalities, steps were taken to cleanse the defective drain, and to prevent the recurrence of so sad an event.

PRESCRIBING DRUG-SELLERS.

It seems impossible, under the present law, to prevent the practice of Medicine by illiterate vendors of drugs. The evil is more prevalent in the poorer neighbourhoods, and notably in the East-end of London. Mr. Humphreys is entitled to commendation for the very decided manner in which he treats the cases of persons who have died under the hands of drug-sellers, and on whom inquests have been held. But the law is too indefinite, and no coroner, however energetic, can deal successfully with a class of offenders who inflict so much misery on the living and destroy so many lives under the pretence of "doctoring" the patients. Last week an inquest was held by Mr. Humphreys on the body of an infant, aged 1 year. The mother deposed that the child had been ailing for some time, and that she had called in a "chemist" to attend him, and that he had attended and prescribed for some time, charging sixpence for a visit and medicine. She always thought that he was a regularly qualified Doctor, and he never told her to the contrary. The child gradually got worse, and at last was so bad that she called in Dr. Riley on the Friday evening, but the child died the next morning. Dr. Riley stated that he saw the deceased on Friday evening, and found him suffering from congestion of the lungs. He died the next day. If he had seen the case a few days before, he had no reasonable doubt he could have pulled him through, as he was healthy and well-nourished. The Coroner, addressing the jury, said: "Unfortunately, this is a sample of many inquests which I have to hold; for druggists openly defy the law, thereby endangering the life of the patient. There is no earthly reason why this child should not have grown up to manhood. Some active steps ought at once to be taken to abate this evil, and I sincerely trust the press will help to expose it." The verdict was, "Death from natural causes"—the jury expressing their concurrence in the opinion of the Coroner.

TRIBUTES OF RESPECT TO THE LATE MR. WADE.

A fortnight since we recorded the death of Mr. Robert Wade, of Dean-street, Soho. We are pleased to announce that at the meeting of the Vestry of St. Ann's, Soho, held last week, the following resolutions were passed:—"That this Vestry has heard with unfeigned regret of the death of Mr. Robert Wade, who for upwards of fifty years has resided in this parish, during the last forty years of which he has filled the office of Surgeon to the Westminster General Dispensary." "That the Vestry has also observed the devotion and kindness which prompted his gratuitous exertions in alleviating the sufferings of the sick poor during so long a period, and takes this opportunity of expressing its sense of the great loss which the public, whom he served so ably and unselfishly, has sustained by his death. It further tenders to his widow and family its sympathy with their bereavement." A similar vote of condolence to the widow and family of Mr. Wade was passed by the Committee of the Westminster General Dispensary.

MR. CORRANCE AND POOR-LAW MEDICAL RELIEF.

The Council and members of the Poor-law Medical Officers' Association held a meeting at the Medical Club, on Monday, to confer with Mr. Corrance, M.P., as to the course to be taken by that gentleman in the ensuing session of Parliament in furtherance of the objects of the Society. Resolutions were passed declaring the present Poor-law Medical Service to be ill-regulated and deficient in many important respects, and demanding improvement. That the establishment of public Dispensaries, in accordance with the recommendation of the Sanitary and Poor-law Inspectors' special reports, is necessary and desirable, and that a deputation wait upon the President of the Local Government Board, to impress upon him the necessity of introducing clauses in any Sanitary Act embracing these opinions.

THE WATER-SUPPLY OF LAMBETH.

Dr. Cormack made his first sanitary report to the Lambeth Vestry on Thursday last. He stated that he had made a careful analysis of the water supplied to the parish by the Lambeth, the Southwark, and Vauxhall Companies. In each case the water had been drawn from the main. He found the water strongly impregnated with sewage and other organic matter to an alarming extent, and declared that the water supplied by the above Companies was utterly unfit for human consumption. It was resolved that the report be printed for the use of the Vestry, after which the subject would be taken into consideration.

LUMBAR COLOTOMY.

On Wednesday, January 31, at the London Hospital, Mr. Maunder performed the above operation in the left loin, in order to favour the healing of tertiary syphilitic ulcers in the rectum, associated with a free discharge of bloody mucus. The patient, a female, aged 25, had been under observation for more than two years, and the disease had resisted many modes of treatment. She is doing well.

FROM ABROAD.—EPIDEMIC VARIOLA AT MILAN IN 1870-71—DISCUSSION ON DIPHTHERIA.

Dr. Felice Dell'Acqua, Medical Officer of the Milan Municipality, has published in the *Gazetta Medica Italiana-Lombardia* (January 27) a report on the epidemic of small-pox which has recently prevailed in that city, and which, indeed, still prevails there, although to a diminished extent. We extract some of the particulars. The account relates exclusively to the cases observed within the municipal limits, and does not embrace those which occurred in the adjoining communes. The epidemic commenced in the spring of 1870, and continued to increase during the rest of the year. In the early part of 1871 its prevalence diminished; then, again, as is usual with this disease, to greatly increase again; so that the cases reached, in September, October, and November, 1871, the respective numbers of 756, 739, and 676. In December these sank again to 345, and in the first fortnight of the present January 125 cases only occurred. Unfortunately, the reporter does not state the portion of the native population of Milan (217,310 in 1871) which the municipality comprises. In 1870 the entire number of cases was 1287 (646 males and 641 females), the ordinary number in Milan being between 200 and 300. In 1871 the number increased to 4467—2381 males and 2086 females. In 1870, of the 1287 cases, 881 were treated in Hospital, furnishing 93 deaths; and 406 in domicile, with 59 deaths. There were thus 152 deaths, or 14 per cent. Of the 1136 recoveries, 789 took place in Hospital and 347 in domicile. In 1871, of the 4467 cases, 3286 were treated in Hospital and 1181 in domicile; and while in the Hospital there were 2686 recoveries and 600 deaths, there were in domicile 915 recoveries and 266 deaths. In the total of 4467 cases there were 866 deaths, or 19 per cent., and 3601 recoveries. The mortality in both years would have been much less had not popular prejudices prevented so many of the cases coming early under the management of the sanitary authorities.

The municipal authorities, at all events, did their part well and actively, and with no stinted means, and, while seeking out and tending those attacked, diffused gratuitous vaccination and revaccination far and wide to all they could get to accept it. As Milan is one of the head-quarters of "animal vaccination," it is that form which was resorted to by the municipality. In 1870 there were 4228 persons vaccinated (*i.e.*, 1267 vaccinated and 2961 revaccinated) at the municipal expense; and in 1871 there were not less than 17,069 subjected to the operation; of these 1504 were vaccinated and 15,565 (7720 males and 9349 females) revaccinated. In 10,597 cases in which the results were verified, these were as follow:—In 1309 vaccinations the results were genuine in 1270, spurious in 4, and wanting in 35; in 9288 revaccinations they were genuine in 5039, spurious in 435, and wanting in 3814. Among 4467 cases of small-pox observed in 1871, only 76 persons were found who had been revaccinated, and these, for the most part, several years before, and almost always without result. Of these 76 individuals only 8 died, while the majority suffered only a light form of varioloid. Of these 8 cases, 4 had been revaccinated five, six, nine, and ten years before, and the other 4 had been revaccinated twice more recently, but without effect.

Milan, in fact, suffered relatively much less from the epidemic than smaller places—as, for example, Brussels and Genoa; and the reporter attributes the comparative lightness of the epidemic to the excellent arrangements of the municipality and the large number of vaccinations put into force. The Local Vaccine Committee practised 21,601 vaccinations, while, in private, Practitioners were most active in the practice; so that it was calculated that altogether about one-fourth of the entire permanent population of Milan was vaccinated.

In the garrison of Milan there occurred, in 1870, only 5 cases of variola in a force of 9000 men, and in 1871, in a force of 7000, there occurred 18 cases. All these had been vaccinated in their infancy, and revaccinated without result on joining the army. In 1870 there were 1541 revaccinations performed in the garrison, and 1657 in 1871.

Dr. Dell'Acqua terminates his report by again eulogising animal vaccination, which has, he says, spread so rapidly throughout Italy. After having been practised for many years in Naples, it was introduced into Bologna in 1868, and Milan in 1869, and has since been adopted in all Italian towns. One alone—Venice—has proved recreant, and he visits with most withering language the municipality of that city, which, notwithstanding the splendid results obtained by its own sanitary commission, has, led away by prejudice and routine, retrograded to the old practice of arm-to-arm vaccination. For this he holds it up to the indignant scorn of the more advanced municipalities.

On the occasion of one of the internes relating at the Lyons Medical Society several cases of diphtheria which have occurred at the Hospice de l'Antiquaille, an interesting discussion arose, which we find reported in the *Lyon Médical* for January 21 and February 4.

M. Delore observed that the disease is frequent at the Charité, where it may be observed affecting the skin and mucous membranes, the surface of wounds, blisters, erosions, etc. Among the mucous membranes those of the pharynx and larynx are specially affected, and of wounds those after operations. He has met with it seven or eight times after harelip operations; and what is remarkable about it there is, that it occupied only the surface of the lip, and not the incised portions, so that, in spite of the complication, union could be obtained. It has frequently occurred, also, after autoplasty, and so great is its frequency and gravity, that autoplasty is a more dangerous operation at the Charité than amputation of the thigh. M. Delore cannot admit the assimilation that has been attempted between puerperal fever, diphtheria, and erysipelas, although these diseases may sometimes coincide. At the Maternité he has witnessed several epidemics of puerperal fever, and only rarely diphtheria; and while in the Surgical wards he often meets with diphtheria, he rarely sees erysipelas. Diphtheria is very contagious, and the epidemics which so often occur in the Charité can almost always be traced to a child with croup. A morbid condition of the mucous membranes predisposes to the contagion; and thus angina, laryngitis, bronchitis produce an alteration in the membrane which facilitates the absorption of the diphtheritic contagium. For the treatment of the disease he does not believe that there is any specific, all means having been attended with some success, while sometimes the affection stops short of itself without obvious reason, recurring, too, in other cases even after the application of the actual cautery, just as in hospital gangrene. It is, in fact, with this latter disease that diphtheria has most analogy, so that in some cases the differential diagnosis is difficult.

M. Icard wished to direct attention to the importance of the diagnosis between diphtheritic angina and the anginas which, under the name of *angine couenneuse*, are often confounded with it. Among these are the pultaceous, herpetic, and ulcero-membranous angina; and the confusion thence arising brings Medicine into discredit. The characteristic symptoms of diphtheritic angina is a more or less thick false membrane, which is of a greyish-white colour, elastic, and cohesive, and adheres pretty closely to the mucous membrane, having also a tendency to invade the air-passages, and being accompanied by a more or less serous general condition, which has nothing peculiar in itself. In *pultaceous angina*, which is nothing but an inflammatory angina with epithelial desquamation, there are white, soft, thin, irregular patches, which are easily detached, and have no tendency to invade the air-passages. *Ulcero-membranous angina* is characterised by circumscribed and superficial ulcerations, which are covered by a greyish, pultaceous, non-cohesive matter, easily bleeding, and almost always

coexisting with analogous ulcerations along the free edge of the gums, the lips, and inner surface of the cheeks. It has been observed as an endemo-epidemic among the military, and readily yields to the internal use of chlorate of potash. But in *herpetic anjina* the difficulties of diagnosis are increased. It commences with small vesicles, which are succeeded by erosions of the mucous membrane, which becomes covered by small, thin, white circular and adherent pellicles. When these become confluent, they are sometimes not to be clinically distinguished from diphtheritic angina. The coexistence of herpes labialis is of some help in the diagnosis. Where there is doubt the prognosis should be guarded; but we should be careful in not resorting too readily to the use of cauteries in this and the above-mentioned forms. Even in the true diphtheritic form cauterisation will not arrest the development of the disease, and many excellent Practitioners have renounced its employment, relying only on general treatment.

M. Horand was of opinion that M. Delore had confounded *diphthéroide* and diphtheria, as if they were two forms of the same disease. The former is a local affection of the buccal parietes, frequently met with in infants. It is found in the form of greyish ulcerations, and if the wound is pressed between the fingers, as is done when we wish to ascertain the induration of a chancre, a slight discharge is produced. The affection has no disposition to extend, and does not occupy even the whole interior of the cheek. It is more frequently met with in boys than in girls. It is neither contagious nor inoculable, and is not propagated to wounds. M. Boucaud fully recognised the great difficulty there is in the differential diagnosis of diphtheria and Gubler's herpetic angina. It would seem that there are also mixed cases, as in gout and rheumatism. M. Soulier admitted four species of diphtheria—the malignant, infectious, local, and chronic—the malignant also having two varieties, in the one of which the disease has a pernicious form from the beginning, false membranes already filling the throat when the symptoms had not caused any suspicion of danger; in the other variety, the disease is of grave form without being pernicious, the symptoms being in general proportionate to the extent of the lesion. It is the infectious form of the disease that is generally observed, the accidents, which at first seem local, being speedily followed by an infection of the entire economy. The third form is generally benign, especially affecting the larynx, and tracheotomy performed for it is often successful. In regard to diagnosis, it may be observed that at one time diseases of a pseudo-membranous character were multiplied too much, and then, a reaction ensuing, a generalisation took place, and diphtheria of various forms was admitted. Most of the so-called diphtheritic anginas are evidently herpetic anginas. M. Dron believed that a complete separation must be admitted between diphtheria and ulcero-membranous stomatitis, which has of late been called *diphthéroide*—a term only calculated to create confusion. During five years at the Antiquaille, in a children's service of 240 beds, he has met with no case of diphtheritic laryngitis or angina, while he has seen more than 200 cases of ulcero-membranous stomatitis, which is, so to say, endemic there. The local characters of deep ulceration and pultaceous secretion covering this, as well as its ready cure by the internal use of chlorate of potash, prove that it is a disease radically different from diphtheria.

PARLIAMENTARY.—PUBLIC HEALTH.

In the House of Commons, on Wednesday,

Sir C. Adderley gave notice that on the 16th inst., on the occasion of the introduction by the Government of the promised measure relating to the public health, he should ask leave to introduce his own measure of last session for consolidating and amending all the laws relating to public health now existing and applicable to England and Wales.

MEDICAL REPORT OF THE SMALL-POX AND VACCINATION HOSPITAL FOR 1871.

PRESENTED TO THE ANNUAL GENERAL COURT OF THE GOVERNORS HELD ON FRIDAY, FEBRUARY 2, 1872.

The epidemic of small-pox, to which we had to ask your attention in our last annual report, has not yet entirely ceased. Its influence was evinced in varying degree throughout the whole of the year 1871—markedly so in the first half of the year, and in minor degree in the second half. The monthly admissions of patients into the Small-pox and Vaccination Hospital during the year 1871 were as follows:—

January	137
February	117
March	125
April	130
May	109
June	88
July	61
August	39
September	21
October	35
November	40
December	60
Total	962

Of the 962 patients thus admitted into the Hospital in 1871, 950 were labouring under small-pox, and 12 under varied forms of eruptive or febrile disease—not small-pox, but assumed to be so, and on that assumption sent to the Small-pox Hospital. Of the 950 cases of small-pox, 870, or 91·5 per cent., of the whole cases of small-pox had been vaccinated; and 74, or 7·78 per cent., were unvaccinated. Six of the patients were reported to have had small-pox previously.

Of the 74 unvaccinated cases, 49 died, being a mortality for that class of 66·2 per cent. Of the 870 vaccinated cases, 130 died, or 14·9 per cent. Of the 6 cases classed as small-pox after small-pox, 2 died, or 33·3 per cent. Ten deaths in the vaccinated class were caused by superadded disease, viz.:—

Bronchitis	1
Gangrene	3
Erysipelas	3
Cellular inflammation and pyæmia	1
Diarrhœa and glossitis	1
Diarrhœa	1
Total	10

Fourteen patients admitted last year are still in the Hospital under treatment, and one of these is yet in some danger.

The general mortality for the year 1871 has been 181, or 18·8 per cent. of all admitted. Excluding the twelve cases not small-pox, none of which were fatal, the mortality was 19 per cent.—a death-rate largely in excess of any that has occurred at the Hospital during the last twenty years, and not attributable in this instance (as a heavy death-rate on many former occasions has been) to the number of unvaccinated children suffering from small-pox who have been admitted into the Hospital (for of such there were very few in the year 1871), but due to the severity of the disease, and especially to the number of cases of malignant small-pox, the proportion of which to other cases has been very largely in excess of anything within the previous experience of either of your Medical officers. In this respect the small-pox epidemic of 1870-71 has deviated from the ordinary course of epidemics. As a rule, the proportion of severe cases is the largest, and the mortality consequently greatest, during the earlier portion of an epidemic, the disease becoming milder, the proportion of severe cases less, and the mortality diminishing, as the epidemic approaches its termination.

But in the case before us this rule has been reversed, for the proportion of severe and fatal cases increased as the epidemic advanced. In 1870—the first portion of the epidemic—in a total of 1285 cases of small-pox, there were 19 malignant cases, or rather less than 1·5 per cent.; whilst in 1871—the latter portion of the epidemic—in a total of 950 cases of small-pox, there were 42 malignant cases, or 4·4 per cent. In the 74 unvaccinated cases there were 6 malignant, or 8 per cent.; in the 870 vaccinated, 36 malignant, or 4·1 per cent. All the malignant cases, without exception, proved fatal. In fine, the mortality, both in the vaccinated and unvaccinated, has been

nearly double what was the average of a series of sixteen years—viz., from 1836 to 1851 inclusive—as may be seen by a comparison of the return of 1871 with the tabulated reports made public by your Resident Surgeon in 1853. 965 persons have been vaccinated at the Hospital during the year 1871, and 732 charges of vaccine lymph have been supplied to the members of the Medical Profession at home and abroad, besides several large supplies in tubes for the colonies.

WILLIAM MUNK, M.D., F.S.A.,
Physician to the Hospital.
J. F. MARSON, F.R.C.S.,
London, Feb. 2. Surgeon to the Hospital.

THE

CONTAGIOUS DISEASES ACTS QUESTION IN A NUTSHELL.

IT is surely high time that some agreement should be come to between the supporters and the opponents of these Acts. New statutes may be framed so as to include all the solid advantages which the former claim for them, and at the same time to exclude provisions which give ground, or seem to give ground, for the argument that these Acts may be used to promote moral, whilst attempting to repress physical evil.

Some of the objections against the Acts must be admitted to be unanswerable, because they seem rather to belong to the department of lunacy than of common sense.

1. One of them is the plea that venereal disease was intended as a punishment for sins of the flesh, and that to do away with the punishment will take away the prudential motives which restrain some men from sin. There may be some truth in this; but still, if such an argument is to be acted on in one case, why not in more than one? Lice and the itch are punishments for want of cleanliness; diarrhœa and typhoid for want of proper modes of disposing of ordure; rheumatism and gout, pneumonia and pleurisy, are all punishments. But who would begrudge a pot of brimstone ointment to a man with itch, lest other people should be encouraged in the sin of dirtiness?

2. A second is, that women have a right to do what they like with their own, and that laws against disease are infringements of liberty. According to this, we should abolish our legislature against small-pox.

3. Next comes the objection that, by simply attending to the health of public women, and neglecting their morals, a kind of Government stamp is given to two pernicious principles. One, is that indulgence is a matter of necessity for the one sex; and the other, that the "State" should make provision that this indulgence may be safe.

Now, spite of all the accusations made against the Medical Profession, we do not believe that it as a whole, or any more than that most insignificant fraction who in so large a body may be expected to hold eccentric and unusual opinions, ever promulgates any doctrine, in public or in private, contrary to sound morality. Of this we can adduce one remarkable instance:—

In the interesting volume issued by Dr. Dobell ("Reports on Progress of Medicine in various parts of the World," vol. ii., p. 228) we find a report from an English Physician at Java. This gentleman, in describing the moral and physical peculiarities of the population, says that all the unmarried Europeans either keep mistresses or resort to the public women. He speaks of resistance to the sexual passion as attended with bad consequences to health. When asked by young men in this difficulty—"What am I to do, Doctor?" his advice is *not* that which we will say, unhesitatingly, would be given by respectable men in this country. But to show that this is his private opinion only, and that our Profession cannot be accused of sanctioning immorality, let us quote further. "I will not dilate further," he says, "on this subject, falsely called 'delicate' by some, but which, I think, ought to be openly and honestly handled by the Profession, and more especially by professors to their pupils. I think I never heard this subject even mentioned, much less lectured on, during the whole course of my Medical studies; and this is very unfortunate for the young Doctor afterwards."

Here we see the force of the proverb, "*Exceptio probat regulam.*" This gentleman holds opinions and gives advice which he considers physiological, but most of us immoral; and he complains that these opinions are *not* taught in the schools.

It must be confessed that the other part of this accusation—viz., that a department of the State is organised for the purpose of making vicious indulgence safe—might be held with some show of probability if some of the statements of the special supporters of the Acts were taken too nakedly. We hear it said that "the Medical Profession has nothing to do with morality"; that a Surgeon who undertakes the private visitation of a brothel is only exercising his skill legitimately. We find a late writer (Dr. Rogers) in behalf of the Acts stating as follows:—

"A matter of hygienic and police importance might also fairly be considered, and well deserves attention—as to the dwellings of this unhappy class. Admitting, as we must, that the evil exists, and, so far as we can see, *will exist*, it seems cruel to drive them into the most unhealthy and noisome slums. Apart from the effects of the disease itself, there is thus also its implantation in a system under the worst hygienic influence to be considered, and which will, in all probability, reflect itself in the recipients of the contagion. Better far to allow some tacitly acknowledged retreats in healthy parts of the town, under police surveillance."

If this proposition means anything, it means that public women are not only to be treated medically at the public expense, but that their dwellings are to be placed under police and sanitary care superior to that bestowed on the honest working-classes, who, we suppose, are to be left to the full benefit of the "unhealthy and noisome" slums, from whose influence the women and their customers are to be protected by the "State."

The substance of what is desired is, that prostitution—open, brazen-faced, public prostitution—in public places shall be repressed by the police; that any prostitute under 21 be sent to a reformatory; and that the repression of syphilis be made, as it should be, a subordinate but essential work of the machinery for the suppression of open prostitution; whereas at present the disease is put into the first place, and morals left out.

We must here do full justice to the persons employed in carrying out these Acts, and acknowledge that although, technically speaking, it is disease, and not vice, which is their subject-matter, yet that, in the actual discharge of their duties, vice has received a large share of repression. We refer with pleasure to a pamphlet "On the Working of the Contagious Diseases Acts at Cork and Queenstown," by James G. Curtis, jun., Visiting-Surgeon, 1871—a work evidently dictated by views as clear of the necessity of discountenancing vice as those of anyone who opposes the Acts on the plea of morality.

"When first the Acts came into force," says Mr. Curtis, "the streets of Cork were a disgrace to any civilised community. Nearly 400 Phrynes of the lowest type nightly paraded the chief thoroughfares, so sunk in vice that one could scarcely fancy them human beings. No virtuous female, even when accompanied by a male relative, dared to traverse the streets without incurring the risk of being saluted with the vilest obscenity, and disgusted by scenes of frightful inebriety; in fact, the streets of Cork at night were as faithful a representation of Pandemonium as need be. What is now the case? Cork is, for its size, as orderly a city at night as any in the world. No gross obscenity or drunken ribaldry offends the ear; and the most practical proof of the efficacy of the Acts is, that out of this large number of prostitutes (400) there now remain in the district but 181, of which latter there are usually in Hospital, prisons, and workhouse 104; leaving the actual number at present in Cork, Queenstown, and an area around them of ten miles, but 77 at large. Well may I be asked, Where are the rest? Have they gone elsewhere to carry on their sinful trade? A very small number indeed have; but the majority have not only left the streets, but have left their degrading life, and become virtuous."

If all advocates of the Acts had written in the gentlemanly and moral tone of Mr. Curtis there could have been no vestige of ground for the accusation that their sole care was to make vicious indulgence safe.

We say, in conclusion, "Repress open flaunting prostitution, which is the tree, and not merely syphilis, which is the fruit." If the police can take cognisance of public women, and if they can be subjected to moral influence when diseased, why not before they are diseased? As for *extinguishing* prostitution, that is Quixotic; but we can make it hide its face. We will wind up with a cutting from the *Daily Telegraph* of October 16, 1871, headed "Jack Ashore," and describing life at Wapping. Let us say that a police that is to exterminate syphilis had better begin with such prostitutes ("*scores and hundreds*, from 15 to 50") as anyone may see at Wapping.

"Here," it says, "are the old taverns where jolly Jack Tar,

both of the navy and of the mercantile marine, used to drain his can of flip, as well as several of modern build, and they are ablaze with gas and plate-glass, and there are announcements of concerts and dancing-rooms. Men in reefing jackets pass in and out, some alone, and some in close companionship with females in ball-room attire. There is the sound of music within, and shrill female laughter. This is promising. Let us enter the 'Old Frigate' and see how the modern Jack ashore disports himself.

"A first look round somewhat damps one's expectations; the more so, because it is evident at a glance that the male customers who cluster about the extensive bar are seafaring men, and that the females present are their consorts. A terrible-looking lot the latter—brutal, blear-eyed, savage-looking, from *fifteen to fifty* and over, all with a thirst for gin as ferocious as that of the tiger for blood, and with as little consideration for the victim who supplies it. No blandishment or 'blarney' with these bruised and bloated black-eyed Susans; no ogling or make-believe of affection, or even of affable toleration, for the men whose pockets they are draining. They demand more gin or rum with the air of a Whitechapel fighting man in female disguise, and spill it down their capacious gullets without so much as a bare 'thanky.' But perhaps these are not fair samples of the modern 'lass that loves a sailor.' The 'concert-hall' was at the end of a passage; a curtain screened the entrance to it; and no doubt within its more secluded precincts Jack ashore, and in search of that lovely charmer, a few hours in whose blissful society give ample reward and consolation for weeks of toil upon the raging main, is more fortunate.

"Delusive hope! The 'concert-hall' was as melancholy a place as could well be imagined. At the end of the room there was a raised platform, with a shabby attempt at scenic decoration, and a fiddle and a harp; and at intervals a female 'came on' and favoured the company with a song, not much more indecent than many to be heard at any music-hall. Afterwards the singer, with her low-necked frock, and her short skirt and 'fleshings,' moved among the audience with cigars and tobacco, and received its congratulations, together with any odd pence it might please to bestow on her, over and above the price of the havanahs. That was all the 'fun,' if so it may be accounted. . . . . They were dull and stolid, and good for nothing but drinking.

"This, at least, was evidently what the women thought—drinking and fleecing. A heartless, cold-blooded set of ogres! I do not speak exclusively of those assembled at the 'Old Frigate,' but of the scores and hundreds besides who were to be found that night, or any night, haunting Ratcliff and Shadwell, and lying wait like beasts of prey for spoony modern Jack ashore, to hocuss and pillage him. They are a peculiar breed of females, I believe, that have their lairs in Tiger Bay, and Backchurch-lane, and Palmer's Folly, and other awful places contiguous to the Docks. They appear different from the vilest creatures of any other part of London, and they act differently. The grit of vice seems to have scoured their natures bare of all that is womanly, while it gives the keenest edge to their cunning and rapacity. Jack ashore has wonderfully altered with the times. He sits like a fool, and allows a tigress of the 'Bay' to get drunk at his expense. Should he be too wary to let her dip her hand into his pocket, and so 'drink him dry,' she will permit him to accompany her to her den; and he is a remarkably lucky Jack if he escapes therefrom with the clothes on his back. Occasionally, once or twice a week, these cases of robbing and stripping are brought under the notice of the police magistrates; but it is a fact which the police of this infamous district could corroborate, that if the plunderers were prosecuted in every instance, his Worship on the bench would find his time pretty constantly occupied with them. Jack ashore, however, has no love for the police or for police-courts, and would rather bear the loss than risk the ridicule of his shipmates."

Will anyone dare to advocate the repression of mere disease, and to leave this abominable public profligacy as it is?

It is understood that the Waynflete Professorship of Chemistry at Oxford will shortly become vacant by the resignation, through ill-health, of Sir Benjamin Collins Brodie, M.A., of Balliol and Magdalen Colleges. Professor Brodie was elected to it in 1855. The Professorship is worth £600 a year, and is in the gift of the Chancellor of the University.

SOME REMARKS ON DR. MAUDSLEY'S BOOK, "BODY AND MIND."

By Dr. F. A. HARTSEN.

Of modern philosophical publications which have lately appeared, England has given by no means the least important contingent; and among these "Body and Mind," by Dr. Maudsley, is decidedly one of the most attractive. We wish to make some remarks upon that part of his book which is especially consecrated to the theory of vitality.

The characteristic of Dr. Maudsley's theory of vitality is this: that he considers the different modes in which life appears as so many kinds of *force* (vital forces) and, definitively, transformations of *physical* forces (warmth, electricity, etc.).

From a theological point of view, the theories of Dr. Maudsley have already been attacked. We wish to attack them from a logical point of view, and more particularly so his theory of vital force.

The idea of considering vital forces as transformations of physical forces is certainly very ingenious and seductive. But, we regret to say, it is rather the consequence of a poetical than of a scrutinising mind. It is inspired by the spirit of Goethe rather than by that of Newton or Whewell.

Dr. Maudsley has a very strong love of *generalisation*, and his theory is the offspring of his worship to this divinity. Not that we would wish wholly to banish generalisation from science, but, surely, in this matter great caution is required, and one should never in generalising "sell the bear before she is killed." For instance, in physics it is a law that heat, electricity, and chemical affinity are never destroyed, and that, if one of them appears to have been destroyed, it is present in another form. Thus it is admitted that those phenomena can be transformed the one into another. From this Dr. Maudsley infers —"Though it may seem difficult to avoid the conclusions that there is fundamentally but one natural force which manifests itself under different modes, yet such a supposition at present transcends the domain of science."—(P. 152.)

Dr. Maudsley, who abhors the idea of force which produces itself, is not in earnest shocked at the idea of one single force taking different forces—nobody knows why!

But wait a little. What is in reality transformed? Dr. Maudsley and Physicians say *force*. But let us ask: is this exact? What *is* heat, and what *is* electricity, and what *is* chemical affinity? Are they not modes of motion? *Motion*, so it seems, not *force*, is transformed. Is real force, which is an *action of an atom*,(a) ever converted into another? We doubt it. Who has ever stated that a real force—*gravity*, for example—was transformed? . . . .

Admitted that heat, etc., were real forces, we have no right to assert that even among the physical forces the law of transformation is without exception. The utmost we may do is to allow it to those forces *which are not inherent to a special atom, or, rather, which do not form its substance.*

But Dr. Maudsley, it seems, sets aside all atoms, and, in fact, all *positive individuality*. To him the whole world is an agglomeration of forces which can merge the one into the other. He abhors creations out of nothing, but at the same time he allows one substance to be transformed into another, as if this did not suppose both destruction and reconstruction!

Dr. Maudsley not only generalises extravagantly, but (in contradiction to all rules of science) ends by constructing the particular from his own generalisation. In short, his theory of vitality is evidently a deduction from this argumentation. If the axiom that force, like matter, is not capable of annihilation be accepted, and we find, as we do, that organic bodies incorporate, or somehow cause to disappear, inorganic matter and force, and thereby themselves increase, it is an unavoidable conclusion that the organic matter and force must represent the converted inorganic matter and force (p. 167), etc.

Here, as minor, another axiom is supposed—namely, this: when a thing appears while another disappears the former is necessarily a transformation of the latter. But this axiom we must declare wholly arbitrary. By the same rule Dr. Maudsley could go a step farther, and declare *that each effect was nothing but the transformation of its cause.* If he means that this would be too much in opposition to facts, we could make the same objection to his own theory. Nobody denies that

(a) That which we call "matter" is evidently nothing else but *force*. See on this subject the "Psychology" of Professor Ulrici, the publications of Professor v. Fichte, Mr. Drossbach, and others.

the force and matter which organic beings incorporate are lost. But does it follow from this that they are *transformed* into vital force?

It is possible that an action is necessary to another without there being any transformation of the one into the other—that is, without destruction of individuality. For instance, if I order my servant to lift a heavy weight, two activities are manifested: firstly, my volition, and secondly, the muscular activity of the arm which lifts the weight. According to Dr. Maudsley's theory, the latter activity would be the transformation of my volition. This evidently is not the case. Let us analyse the origin of the muscular activity, and it will never be brought back to my volition. The muscular activity may be transformed chemical affinity of substances in the servant's blood, substances emanating from his food. Allowing them to be transformed volitions of the *servant*, they have nothing to do with *my* volition. For my volition is not transformed into the servant's volition. My volition has only given the impulse to my organs of speech. These have brought the air into movement, and this movement has communicated itself, through the ear of the servant, to his mind. Each keeps his own volition. And even if the little force necessary to produce the vibration in the air which conveys my order to the servant were transformed volition, *his* volition is not a transformation of that force. Thus, the muscular activity which lifts the weight at my command would be at the utmost a transformation of the *servant's* volition, not of *mine*. But it *is not* a transformation of his volition. No; for, as it is between me and the servant, so it is between the molecules of which the servant is constituted. The force displayed by the fibres and atoms of his muscles has by no means its *origin* in his volition, but in his blood, and finally in his food. His volition is not transformed into the volitions (so to speak) of the molecules of his arm, but it *commands* the molecules of his *brain* as I command my servant. Consequently, the molecules of his brain command to the molecules of his *peripherical nerves*, and these latter command (by vibrations?) to the molecules of his muscles. So each molecule acts by itself, and *keeps* its own force.

If really the muscular activity were transformation of volition, there would be a *proportion* between the volition and the activity displayed in consequence of it. Now, this is by no means the case. It does not require a greater expenditure of volition to command a large army than a small one, and a child can command his muscles to lift up 1000 kilos as well as an athlete. If the command be not obeyed, it is the fault of the muscles, not of the volition. We see by this that the quantity of motion or physical force displayed by a volition is not proportionate to its own expense of activity, but to the *place* it occupies, and to its instruments of action.

And so it is with all vital force. The soul, whatever may be its nature, needs physical force for its manifestation. But the real *source* of this force is the body, not the soul itself. The soul is not transformed into physical force, nor physical force into vitality. But Dr. Maudsley admits no soul as a substance. He considers the soul as a production of the organisation. We may ask Dr. Maudsley . . . . whence this organisation itself?

However, even the strongest materialist cannot explain the world as a Proteus-like transformation of a force. He is at least obliged to admit *fixed centrums* (atoms) of force. And though these centrums may change their relations towards each other, though they may exhibit movements according to certain laws, it would be an upset of all science to admit that a force could be detached from one atom and reappear in another atom in a different form.

We can admit that an atom itself—the soul, for instance—changes its form of action, according to the manner in which it is affected by other atoms; but this is quite a different matter.(b)

FOREIGN AND COLONIAL CORRESPONDENCE.

WEST INDIES.

PORT OF SPAIN, TRINIDAD, January 17.

THE EPIDEMIC OF SMALL-POX IN TRINIDAD.

THE epidemic, of which I very briefly described the commencement, has now reached what we hope is its height in Port of Spain. There have been reported to the Health Office up to the present date (January 16) 1740 cases and 310 deaths. There are many more deaths than these, but they have not all been reported. One day last week twenty-seven deaths from small-pox took place, and this out of a population of 23,000. This was at the rate of nearly 43 per cent. per annum. The cases have lately assumed an exceedingly malignant form, many petechial and hæmorrhagic cases having occurred, all of which proved fatal. The extraordinary amount of eruption in some of the negroes is astounding; the whole body is one single pock—that is, the whole of the epidermis is raised in one smooth, even mass, without even the marks of division into pocks, except, perhaps, on the abdomen. These cases, of course, die in a few days of blood-poisoning; they never reach the pustular stage. The epidermis is rubbed off as from a blister in large masses by the patients rolling about; and they present a horrible spectacle. Very many corymbose cases have come under my observation. I have found that in these, and severe confluent or semi-confluent cases with a copious eruption, nothing does so much good as opium. At the Small-pox Hospital, which is under my charge, I treat the secondary fever in these cases with bark mixture and opium, and certainly some have recovered who seemed hopeless at first. Ten mimims of the tincture every four hours is the usual dose, with a little compound tincture of cinchona, and two grains of quinine. Delirium is exceedingly common, and the patients are very violent and troublesome. Chloral seems to do no good unless pushed to larger doses than would be safe. Morphia given in repeated small doses answers better. It has often been necessary to give nourishment in these cases per rectum, as they refuse everything.

As a rule, all the bad cases come from certain well-known localities, where every possible sanitary defect exists, especially fearful overcrowding. I suppose the densest slums of London are not now so overcrowded as many parts of Port of Spain are. At night the people are packed together on the floors as thick as they can lie.

One case of secondary small-pox has occurred. It was in a coloured girl, who lives in one of the most unwholesome streets in the town. She had small-pox in the epidemic of 1861. Attacked with the discrete form in this epidemic, she had petechiæ over the whole of the body; she died after five days' illness. What is curious is, that the petechiæ appeared *before* the eruption, and during the primary fever. This led me to suppose that it must be typhus. Three other cases have occurred in the same house.

It is unfortunate that the measures taken by the Board of Health at the commencement of the epidemic were of such a feeble and inefficient character. They are now beginning to wake up, and are adopting more energetic measures. The Medical Officer of Health, Dr. Bakewell, resigned on January 2, partly because he found the work too much for him, he having charge of the Small-pox Hospital, and being Vaccinator-General also, but chiefly because he was disgusted by the continued opposition made at the Board of Health to the plans he proposed for treating the epidemic, and which he deemed essential if it was to be in any degree checked. Dr. Crane, the Surgeon-General, has been appointed to succeed him.

I regret to say that pernicious fever has made its appearance, and typhoid has caused some deaths lately. Diphtheria is also somewhat prevalent. Altogether this is about the unhealthiest colony in her Majesty's dominions, and now we are all shut in here, as none of the steamers will take passengers from this island on account of the quarantine regulations.

(b) After having written these lines we made the acquaintance of the "Psychology" of Professor Herbert Spencer, and were agreeably surprised in finding our own arguments in his interesting book.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, January 27.

AT the last meeting of the Dublin Obstetrical Society, held on Saturday evening, January 20, a most valuable paper was read by Dr. George Johnston, the present Master of the Rotunda Lying-in Hospital. The communication to which I refer was a report of the practice of that institution during 1871. Since he entered upon office Dr. Johnston has laboured to bring the sanitary working of the Lying-in Hospital into a most efficient state, and his efforts have so far been crowned with success. A perfectly pure atmosphere in the wards, secured by alloting a large cubic space to each patient and by a system of thorough ventilation, the maintenance of strict cleanliness in every particular, and the judicious management

of the cases under treatment have worked marvels in raising the health-standard of the Hospital.

In the year which has just drawn to a close, characterised as it was by the prevalence of epidemics—more or less severe—of scarlatina, typhoid fever, and, lastly, small-pox, the healthiness of the Lying-in Hospital comes out in still bolder relief. During the year ending November 5, 1871, 1161 intern labour cases were treated, of which 403 were those of primiparæ. In 963 instances the labour was in every respect natural. There were 19 cases of tedious labour, 56 of preternatural labour, 39 of complex labour, and there were 24 abortions. The deaths amounted to 33—a number higher, indeed, than that of the former years, but, as appears from an examination of the causes of death, in no way to be attributed to defective sanitary arrangements. Of the 33 deaths from all causes, 21 were referable to zymotic diseases, of which peritonitis with 8 deaths heads the list. Of the remaining 13 deaths from zymotic causes, 8 were due to accidents attending the puerperal state. One death resulted from typhoid fever, 2 from bronchitis, and 1 from scarlatina. The number of cases of zymotic diseases under treatment during the year was 50, of which, as before stated, 21 terminated fatally. Nearly one-half of these 50 patients—namely, 23—were unmarried, the victims of seduction or the votaries of prostitution; and this fact speaks volumes for the influence of mental agitation or other depressing circumstances on lying-in patients. The second portion of Dr. Johnston's report is devoted to an analysis of the operations performed, or the complications met with in the same period. In 64 cases delivery was effected by the forceps; craniotomy was performed in 6 instances, and version was practised on 7 occasions. Prolapse of the funis occurred 8 times; there was 1 case of placenta prævia; accidental hæmorrhage was met with in 8 instances, post-partum hæmorrhage in 5 instances; there were 2 cases of eclampsia, 12 of mania, and 9 of retention of the placenta from morbid adhesions.

At the same meeting, a most remarkable case of quadruple birth was described in a paper by Dr. Cuppaidge. The mother was only 19 years of age, and was five months and a half advanced in pregnancy when labour occurred. The first two children were alive when born. A foot-presentation took place in the case of the second fœtus, a breech in that of the third, and the fourth presented with the nates. Two distinct placentæ existed.

As was to be expected, from the still increasing proportions and formidable character of the small-pox epidemic now prevailing, the recent meetings of the Medical Society of the College of Physicians have been chiefly devoted to a consideration of the leading topics connected with that terrible disease. The subject was introduced on December 13, in an able paper on "Treatment," by Dr. Stokes. To obviate the untoward effects of pitting, the local treatment by poulticing, and in some instances by depletion, was advocated, and the great advantages derived from the use of the warm bath in certain instances were enlarged upon in this most valuable communication. The subject of variola was again taken up at the January meeting of the same Society, in a paper from the pen of Dr. Malachi Burke, entitled "Some Observations on the Present Epidemic of Small-pox." Dr. Burke traced the history of the outbreak from its commencement in the spring of last year, and dealt with the principal questions relating to the subject in a manner eminently suggestive and introductory to the subsequent discussion.

The debate has already extended over two evenings, and has been again adjourned. The speakers have chosen very varied stand-points from which to view the question, the topic most frequently treated of being, perhaps, the efficacy of revaccination as a preventive measure. Drs. Beatty, Kidd, Atthill, Hayden, and others directly, and Dr. Grimshaw indirectly, have borne testimony in favour of the repetition of the operation. The clinical aspects of variola have engaged the attention of Dr. William Moore, Dr. MacDowel, and others. Of the speakers mentioned, Dr. Moore called attention to the early appearance of the eruption in many cases—within thirty-six hours from the first development of symptoms; while Dr. MacDowel spoke of the purpuric tendency observed in so many cases—perhaps connected with the recent prevalence of malignant purpuric fever in our city. Again, statistical information has been brought forward by Drs. Grimshaw, Hayden, and MacDowel, all of whom have devoted attention to the influence of contagion in spreading the disease. I may say that, in the case of the two largest fever Hospitals in Dublin, the earliest cases of small-pox last year were clearly traceable to importation from England, Scotland, or Wales. As to the mitigating influence of vaccination on the virulence of disease, the striking fact came out in the discussion, that while the mortality of protected persons attacked averaged only from 6 to 9 per cent., that of the unvaccinated amounted to 50 per cent. and upwards.

So far a great difficulty, having reference to the too early dismissal of small-pox patients from Hospital, has existed. There seems to be now good hope of having this drawback removed, as accommodation is being prepared for convalescents dismissed from the wards of the South Dublin Union. It is to be hoped that similar steps will be taken by other public bodies, so as to prevent the dissemination of the disease among the relatives and friends of the convalescent.

The remarkable displacing influence of a prevailing epidemic on diseases of a kindred type is at present well exemplified here. In many Hospitals the fever wards are, and have been for some time back, almost empty; and though scarlatina is so frequently met with as nearly to assume the proportions of an epidemic, yet it is generally of a comparatively mild nature, in pronounced contrast to its character of a year or two ago.

GENERAL CORRESPONDENCE.

TREATMENT OF HYPERPYREXIA BY CONTINUOUS IRRIGATION.

LETTER FROM DR. RICHARD NEALE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Much has lately been written upon reducing the temperature in hyperpyrexia, and many have been the ingenious contrivances to effect that purpose; but in no paper have I seen allusion to a plan so familiar to myself that I presumed everyone else knew of it, and which has, in my hands, for years past produced the result desired—*cito, tuto et jucunde*,—I allude to continuous "irrigation" of the head.

During several years' active practice in Java, where one has daily to combat fevers of the greatest intensity, it was my custom to treat in this manner cases where the fever, from its intensity, threatened to overwhelm the cerebral system. The patient was brought to the edge of the bed, or, if young, placed on a table, with oil-cloth (if at hand) underneath—generally it was a plantain-leaf—a roll of linen in the hollow of the neck, and the head over the edge of the bed or table, a vessel to catch the water below, and, if obtainable, a tea-urn placed above with a piece of elastic tubing. Generally I had to use only beer-bottles, filled with water out of the coldest well or iced (this rarely), with a slit cut in each side of the cork, so that a stream as large as a crowquill could continuously issue. The effect was magical. The delirious patient passed into a quiet slumber; the comatose into a healthy sleep. The hand placed on the pulse could feel the effects, and although the thermometer was not then used as now, the hand told the difference in temperature. After a very short period, indeed, you could bring down the temperature as low as was consistent with safety. Cease the irrigation, and, unless the fever were abated, the previous temperature would soon be again reached. Of course remedial agents, such as quinine (generally combined with iodide of potassium if the brain were much implicated), were simultaneously employed.

Patients have been thus irrigated for thirty, forty, or more hours—one of my own children for thirty-six. One child, aged 10 years, with frightful convulsions, due to tubercular meningitis, complicated with acute dysentery and violent remittent fever, was for eight or ten days and nights continuously, or with short intermissions, under the tap, where she slept as peacefully as in health; but, the stream ceasing, soon the convulsions returned with all their former violence, only to be calmed by "re-irrigation," until death released her.

Dr. Wilks alludes to a case in the *Medical Times and Gazette*, August 1, 1868, page 115, where the results of this plan were most beneficial. I have read, too, of a patent "infant nursery" (the locality has escaped me). It consisted of a ledge under a waterfall, where the native women laid their young children on going to work, so arranged that a stream of water, conducted by a bamboo, fell on each forehead. The child slept quietly until fetched by the mother, her work being done.

It has only once fallen to my lot to employ the above treatment since my return to this country, and then the results were most happy.

One point I ought to mention is, that when the irrigation has

been kept up for thirty or forty hours, the scalp has occasionally peeled afterwards. I am, &c.,

RICHARD NEALE, M.D. Lond.

60, Boundary-road, St. John's-wood, N.W.,
February 5.

TYPHUS FEVER.

LETTER FROM DR. FRANCIS R. HOGG.

[To the Editor of the Medical Times and Gazette.]

SIR,—Accidentally dropping in at Guy's Hospital, and taking a seat amongst attentive students, the great pleasure was afforded me of listening to Dr. Wilks. Amongst other subjects, in an interesting lecture, he reminded us of the difference between typhus and typhoid fever, distinctions which cannot be repeated too often. Although every Practitioner has a library, memory is proverbially treacherous, and continuous reading in the distraction of practice but seldom congenial; whereas, the casual perusal of the Medical journals, in addition to discussing the discoveries of the present, will recall to recollection the lessons and teaching of the past. Briefly, then, typhus, an epidemic contagious fever, originating in dirt, destitution, and overcrowding, commences suddenly after an incubation of nine days, the duration of fever about fourteen, the rash appearing about the fourth—mulberry, petechial, continuous, universal; the patient stupid, the tongue brown, the abdomen natural, the evacuations dark. On the other hand, typhoid—endemic—a non-contagious fever of the better classes, depending on defective drainage and poisoned water—creeps on insidiously after incubating about thirteen days, the fever three weeks, the rash out on the tenth day, rose-coloured, lenticular, non-petechial, and sparsely scattered in successive crops; the patient flushed and animated, the tongue glazed, fissured, and red, the abdomen tumid, the evacuations ochrey. During the leisure of a month's leave, analysing certain statistics, it appears that the deaths in England from typhus typhia, typhinia, taking the mean average from 1850 to 1869, amounted to 17,960 annually; the deaths to 10,000 persons living, about 9·18; the proportional number to 1000 deaths being 41.

In 1865 the Registrar-General records 23,034 deaths, and in 1860 only 13,012. Examining the London Fever Hospital reports, the typhus admissions from 1862 to 1870 run:—1827 (in 1862), 1319, 2497, 1961 (in 1865), 1735, 1383, 1971, 1260, and 631 (in 1870); the deaths being 365 (in 1862), 203 (in 1863), 435 (in 1864), 402, 343, 275, 297, 259, and 117 (in 1870). Total number admitted 14,584, of whom 2696 died. The majority came from miserable localities. The mortality under the age of 20 less than 5 per cent., but above the age of 50 exceeding 50 per cent. Excepting April, 1862, and July, 1870, the admissions highest in November, December, and January, but low in April, June, and August. Excepting the year 1862, female admissions invariably in excess; and as to mortality, from 1862 to 1870 the males 1375 to 1321 females. The characteristic eruption noticed in the following percentage:—94 (in 1862), 96, 97, 93, 85 (in 1866, curious), 95, 96, 97, and 92 (in 1870).

Complications.—Out of 981 fatal cases, the principal complications were—Pulmonary, 470; diarrhœa, 68; convulsions, 46; parotid swellings, 34; erysipelas, 20; gangrene of the feet, 10; scarlet fever, 1; cholera, 1. Calculating from nearly 8000 other cases, the complications and results run somewhat thus:—Pulmonary 1264, deaths 458; diarrhœa 430, deaths 101; dysenteric ulceration 3, deaths 2; obstinate vomiting 15, deaths 7; of 96 instances of parotid buboes (single and double) and submaxillary swellings, 37 died; erysipelas and pyæmia 39, the deaths 11; retention of urine 108, deaths 51; convulsions 76, of whom 69 died; brain disease 9, deaths 4; gangrene of the feet, nose, ears, chest (principally of the former), 15 instances, 8 deaths; cancrum oris, 3 instances, all fatal; various hæmorrhages 12, the deaths 9; bedsores 49 (chiefly begun prior to admission), 13 deaths; epistaxis 3, 1 death; jaundice 3, 1 death; cardiac disease 3, of whom 2 died. Single fatal instances are recorded as complicated with phthisis, pericarditis, hæmatemesis, catalepsy, and keratitis. As to pregnancy, out of 52 women it is very satisfactory to find that only 3 died; 1 went her full time in Hospital, and 22 aborted.

Non-fatal Complications.—Phlegmasia dolens, tonsillitis glossitis, phlebitis, laryngitis (1 of tracheotomy), diabetes, ague, thrombosis of femoral vein, hysteria, albuminuria, carbuncle, otorrhœa, various abscesses and excoriations.

Health of Officials.—Out of 30 Medical men in 34 years, none died; the last fatal case up to 1866 was that of Dr. Dill, in 1832. However, in 1866 Dr. Wyher, and in 1870 Mr. J. C. Skinner, died of typhus. From 1862 to 1870 ten other Medical officers attacked (this event happening every year excepting 1868), recovered. The deaths of two bath-women and two scrubbers are recorded; also of an engineer (in 1864), who had been employed in the Hospital for sixteen years, and who had never before had fever, although his duties brought him daily into the wards. A small number of patients—about 48—suffering from other ailments, contracted typhus. Now about the nurses: from 1862 to 1870, out of 162 attacked thirty-three died—a terrible state of things until the question is fully considered. When it is a matter of fact that nurses have been known to enjoy good health in the Fever Hospital for twenty years after their first attack of typhus, the remedy appears very simple—only to employ young seasoned nurses, and to pay them well—it becomes simply a question of finance. Money, people say, will buy everything but health and happiness; in this case, it will restore health, possibly, to many patients; and, after full consideration, no institution in London appears more deserving of support than a Fever Hospital. Think for a moment of the frightful mortality when cases of typhus are treated in a general Hospital, or allowed to remain in the garrets and hovels of the poor, or in the kitchens and attics of the rich. At great personal inconvenience and neglecting legitimate work, with the hope of learning something, the Hampstead Hospital Inquiry was once or twice attended. An immense establishment, worked by a Naval Surgeon and three lads, where a number of patients gave an infinity of trouble without contributing one farthing, appeared severely taxed. The other day, a crowd of foolish people broke through the ice whilst skating. Their gratitude for life-preservation was represented by a few shillings, and complaints as to the quality of the brandy-and-water. On the subject of typhus, at some distant period of leisure, I hope to be allowed to give my own views and experience. I am, &c., FRANCIS R. HOGG, M.D.

HORSE AND CATTLE SICKNESS AT THE CAPE.

LETTER FROM MR. W. S. BLACK.

[To the Editor of the Medical Times and Gazette.]

SIR,—In Dr. Egan's letter from the Cape, reference was made to the prevalence of horse-sickness and pleuro-pneumonia in cattle in Caffraria, as well as to its intractable nature. This I can fully corroborate from what I saw myself, as also the great mortality resulting, and the pecuniary loss entailed upon owners of stock of both descriptions. Notwithstanding these melancholy prospects, there still exists a possibility of successful treatment, if the means were commensurate to the object in view. The catarrh of the horse is of the most fatal character, and rapidly extends to the trachea and bronchial tubes, and causes death by suffocation induced by the immoderate flow of secretion forced into the air-passages.

Bleeding has been repeatedly tried, but the depression following it is always prejudicial to the strength of the animal, and death results in spite of it. Purgative balls, again, are equally unsuccessful; they induce debility, and (if persisted in too far) cause inflammation of the intestines. On the other hand, antimony and sulphur appeared to have a more salutary effect in diminishing the abundant secretion by causing diaphoresis. This was further tried to be aided by covering the animal with blankets, and abundant perspiration used to follow. Diuretics, as nitre, tended subsequently to confirm this good effect on the disease by inducing full urination and relieving the tendency to the watery secretion from the lungs. In horses there was always coryza preceding the congestive bronchitis, and when the disease was established, the mucus flowed in streams from the nostrils, and suffocation soon resulted from its accumulation and non-expulsion.

In cattle there was a distinct solid pneumonia, with serous and gelatinous pleurisy seen on post-mortem examination. The favourite remedy at the Cape was inoculation of the tail with the virus or effused products of the disease in the lungs; and it generally succeeded, as testified by numerous tailless oxen living afterwards. In cattle the disease was slower in progress, and unattended by the profuse secretion from the nostrils, as in the horse, and was manifested chiefly by loss of appetite and debility. A great many cases were successfully treated by saline purgatives, which did not appear to do the same harm as in the horse. In oxen the irritating morbid agent seemed to pass down to the air-cells of the lungs without acting on the bronchial tubes and nasal passages, as in the horse. Death resulted more from asthenia than from apnœa,

and the vital powers succumbed more from failure of the circulation than from its obstruction.

The cause of both diseases lay, probably, in some morbific agent in the air, like to what produces influenza in England; but many cases were referable to the morbid secretion being swept up off the grass by the animals feeding over places that had been grazed over by affected animals.

Medical officers at the Cape were frequently called upon to attend barracks on the loss of officers' horses, and on the deaths of slaughter-cattle for the use of the troops there from this disease, which rendered the meat unwholesome.

Preventive measures were, however, always salutary in both horses and cattle, which on the appearance of an epidemic ought always to be brought in from grass and kept stall-fed till it has passed. I am, &c.,

February 1, 1872. W. S. Black, Staff-Surgeon.

THE REVIEWER'S REPLY TO DR. DONKIN.

[To the Editor of the Medical Times and Gazette.]

Sir,—I had no desire to reply to Dr. Donkin had you not thought it advisable that I should do so; for, indeed, all the writing in the world cannot alter the facts of the case or make Dr. Donkin's book a good one. I know nothing of Dr. Donkin personally; nor have I any means of deciding whether his book is good or bad beyond what itself contains. Furthermore, I have been careful to separate in my own mind those parts which deal with the treatment of disease by skim milk from those of a more strictly scientific kind; and I repeat that Dr. Donkin's attempts to improve the treatment of diabetes deserve every credit. It is to the quasi-scientific pages of the book I took exception, and, as I believe, most justly. The book apparently claims to give "a sufficiently full account of our present knowledge of the subject (diabetes), and to embrace the numerous and highly important observations concerning the disease made of late years, and scattered amongst a host of British and foreign Medical journals and other publications." One is, therefore, quite entitled to inquire how far these promises are borne out by the character of the work, and, if it falls short, to say so.

Dr. Donkin errs when he supposes the errors formerly adduced were the only ones contained in the volume. To give a full list of them would be, even now, too much; but on the principle "*Ex pede Herculem*," some samples were given and commented on. The impeachment I brought against Dr. Donkin was—that in a work of great scientific pretensions there was not a single quantitative analysis, and it was taught that specific gravity, taken in conjunction with quantity, supplied "a very reliable practical guide as to the quantity of sugar voided in any particular case of the disease"—a guide on which Dr. Donkin seems exclusively to have relied. Now, specific gravity alone is the reverse of a safe guide. Let Dr. Donkin refer to Dr. Bence Jones's "Lectures on Pathology," page 49, and he will find facts and figures to convince anyone on that head—which, indeed, I had believed to be patent to all men. But in one case narrated by Dr. Donkin at page 227 of his book, I noted that the quantity of sugar passed in the twenty-four hours was given (it was also stated to be given in the table, but one cannot find it); therefore I was fain to turn back to the case as it appeared in the *Lancet*, and there the mystery was explained. I found that Dr. Donkin had *by means of a table calculated* the amount of solid matter contained in the urine, its specific gravity being known. "If from this," says he, "we deduct about 600 grs., or 10 drs., as the normal quantity of solids daily in the urine, we arrive at the quantity of sugar present." And this is scientific accuracy, treating an abnormal secretion as a normal one, taking no heed—to mention one thing—of the fact that almost invariably the urea is in diabetes greatly increased! Surely Dr. Donkin cannot have known Roberts's method of estimating sugar, which is both simple and accurate, or he would not have had recourse to such perversely ingenious devices. I will not bandy words with Dr. Donkin, nor discuss the complexity—save the mark!—of Fehling's test; yea, I will commiserate with him on a printer who will spell *Dr.* Ringer *Mr.* Ringer three separate times; who will print carnivora, carnivoræ, and generally make mischief. Perhaps both Dr. Donkin and the printer will be more careful another time. I am, &c.,

The Reviewer.

Fever has broken out with great virulence in the Budwoa, Hooghly, and Nuddea districts.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, January 3.

Dr. J. Braxton Hicks, F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Dr. Bridgwater (Harrow), Dr. Fox (Birmingham), Dr. Gardner (Montreal), Mr. W. Harding, Dr. R. H. Hilliard, Mr. E. M. James (Melbourne), Mr. Jalland (Horncastle), Mr. J. Lattey, Mr. D. B. Rankin (Melbourne), Dr. Vanderstraaten, and Dr. W. C. Wise (Plumstead).

Dr. Bantock exhibited a specimen illustrating the Changes which take place in the Pedicle of an Ovarian Tumour when treated by Ligature. The specimen had been obtained at a post-mortem examination performed twelve months after the operation. When the parts were exposed, no trace of the pedicle could be seen, and the upper border of the broad ligament formed a continuous line with the fundus uteri; but close to its edge could be felt a small body as large as a hemp seed, covered by peritoneum, and about one inch and a half distant from the uterus. The hard body was found to be formed of the knot of the ligature, the loop and ends having disappeared. Dr. Bantock referred to the experiments of Spiegelberg and Waldeyer on this subject, and said that the course of events would appear to be as follows:—When the ligature is applied it forms a deep constriction, which by the bulging of the tissues on each side causes the living to come in contact with the strangulated tissues. Plastic lymph is thrown out, gluing together the opposing surfaces, and its organisation establishes a vital connexion between the two, so that sloughing is prevented. This result is also favoured by the fact that, by displacement of the tissues immediately embraced by the loop of the ligature, in course of time the loop ceases to exert any force; and it is probable that the capillaries ultimately become pervious. Subsequently the absorbents begin their work, and remove not only such portions of the tissues as are unable to maintain their integrity, but the ligature itself yields to the forces at work. Dr. Bantock considered that the extra-peritoneal method by the clamp was the best method of treating the pedunele; still, this case demonstrated the safety of the ligature.

Dr. Playfair read a paper "On the Treatment of Empyema in Children." The author described the peculiarities of pleurisy in children as contra-distinguished from the same disease in the adult. He then referred to the change of opinion which had of late years been observed with regard to the operation of paracentesis. This operation, in ordinary serous pleurisy, evidently stood on a very different footing from the same operation in empyema; since, in the former, we only sought to relieve the distension by removing some of the fluid, and allowing the remainder to be more readily absorbed; while, in the latter, the chance of absorption was diminished to a minimum, and it would be a great gain if we could effect continuous drainage of the pleural cavity, and at the same time effectually exclude the entrance of air. The author then described the method of drainage by Chassaignac's tube, with illustrative cases. He then described the method of continuous subaqueous drainage he advocated, and related the history of three cases successfully treated by it. The results of these were very satisfactory, and contrasted remarkably with the cases treated by pneumatic aspiration by Bouchut. (The paper was illustrated by drawings of the chests of five children, taken by Dr. Gee's cystometer, which showed how much greater the chest deformity was when air had been allowed freely to enter the pleural cavity.)

Dr. Hilton Fagge said that it was hardly necessary for him to state that he approved of the method, as two of the three cases were under his care, yet he felt bound to mention to the Society that he had recently had a case in which the same method had been employed, and with results not entirely so satisfactory. The pus had in this instance made its way by the side of the indiarubber tube, and continued to discharge. It was of great importance that the tube should be tightly grasped by the skin; and for this reason it was better to remove the canula before introducing the indiarubber tube, which should be of the same diameter.

Dr. F. T. Tayler mentioned a case of empyema treated in a similar manner. The chest was tapped with a syphon-trocar. An indiarubber tube was affixed to the canula, and carried into a basin of water. The canula and the tube were retained

twenty-four hours, and then a piece of elastic catheter, with a smaller indiarubber tube, was inserted through the canula, which was withdrawn. The tube was retained for fifteen days.

Dr. Sedgwick approved very much of the plan of subaqueous paracentesis. He had himself occasionally, during the last fifteen or sixteen years, carried out the same principle. He had used a canula, the tube of which projected externally an inch beyond the shield, on which he slipped a long indiarubber tube, with the other end dipping into a dish of water. The plan of introducing the indiarubber tube into the chest was much better than leaving the canula in. Dr. Sedgwick had adopted the same plan in a case of paracentesis abdominis, where the patient was exceedingly weak, and the abdominal walls were as thin almost as parchment. The rapidity of the flow was entirely under control by means of pressure on the tube.

This meeting being the annual meeting of the Society, Dr. Grailly Hewitt said that he had much pleasure in proposing to the Society a very important resolution, to the effect that the Society should at once institute an examination for midwives. The Council began seriously to consider the subject while he had the honour of holding the office of President, and the proposed plan was the result of the continuous and matured consideration of the matter by the Council. The plan recommended involved the institution of an examining board, composed of six Fellows of the Society, the examination to be held quarterly, to consist of a practical testing of the competency of the candidates to practise as midwives, and of the possession, on their part, of such an amount of knowledge as would enable them to recognise the presence of difficulties, and the necessity for at once procuring competent Professional aid for their patients. It would hardly be necessary for him to dilate on the great ignorance and incompetence of vast numbers of practising midwives, nor of the loss of life which thus resulted. The attention of the Society had been forcibly drawn to that in the reports on the subject of infantile mortality procured recently from London and the provinces. It might possibly be said that the institution of such an examination was the duty of the Government, or of the Royal College of Physicians or Surgeons, or of the Society of Apothecaries. He was afraid that little was to be hoped from Government action at present, though ultimately it might be hoped that this action of the Society would result in legislation on the subject. Nor was it to be expected from the general Medical bodies. Under the circumstances, the Society proposed to step forward to initiate what was, he believed, universally admitted to be a laudable object—one, indeed, of pressing necessity. The Society was instituted for the promotion of knowledge in all that relates to obstetrics and the diseases of women and children. This examination would, he felt sure, do very much practically to carry out that great object.

Dr. Routh seconded the proposition. He stated that his first impression was that this measure belonged more to some College than to the Society. On reflection, however, and judging from the long delay that the Colleges would not take it up, he thought some other learned body ought; and if so, what body better qualified than the Obstetrical Society? Dr. Routh then referred to the large number of lives lost through the ignorance of midwives, and to the advantages which would result from having well-educated ones. He could speak with praise of some educated by Dr. Hsll Davis. Again, strong-minded women were on the increase, and sooner or later many would be found in the ranks of the Profession. He only hoped when they were in it there would be found more than the two French ladies, whose names would be handed down to posterity with honour. He alluded to Madame Boivin and Madame Lachapelle. But if the better class of strong-minded women entered our ranks, we might rest assured that they would find imitators in a lower class, which would invade the province of midwifery. If so, it was important to test more accurately their knowledge, and certainly this Society could do it well. Under the circumstances, Dr. Routh thought the Society did well to take the initiative.

The motion was supported by various speakers, and was carried *nem. con.*

The Reports of the Treasurer and the Librarian were read, and the President delivered the annual address. The ballot for election of officers then took place, and the following gentlemen were declared to be duly elected:—*Hon. President:* Sir Charles Locock, Bart., M.D. *President:* J. Braxton Hicks, M.D., F.R.S. *Vice-Presidents:* John Clay, Esq. (Birmingham); H. Gervis, M.D.; H. M. Madge, M.D.; G. C. P. Murray, M.D.; D. Ll. Roberts, M.D. (Manchester); and John Scott, Esq. *Treasurer:* E. J. Tilt, M.D. *Hon. Secretaries:* W. S. Playfair, M.D.; J. J. Phillips, M.D. *Hon. Librarian:* A. Wiltshire, M.D. *Honorary Members of Council:* W. Tyler Smith, M.D.; H. Oldham, M.D.; Robert Barnes, M.D.; J. Hall Davis, M.D.; Grailly Hewitt, M.D. *Other Members of Council:* J. H. Aveling, M.D.; J. W. Black, M.D.; John Brunton, M.D.; Brendon Curgenven, Esq.; J. Fowler, Esq. (Wakefield); G. Gaskoin, Esq.; S. Day-Goss, M.D.; T. T. Griffith, Esq. (Wrexham); W. E. Image, Esq. (Bury St. Edmunds); J. R. Kirkpatrick, M.B. (Dublin); D. Mackinder, M.D. (Gainsborough); J. B. Potter, M.D.; Adolph Rasch, M.D.; W. R. Rogers, M.D.; Henry Savage, M.D.; L. W. Sedgwick, M.D.; Heywood Smith, M.D.; H. W. Sharpin, Esq. (Bedford).

THE PATHOLOGICAL SOCIETY.

Tuesday, January 16.

Mr. Hilton, F.R.C.S., President, in the Chair.

Reports were read on Mr. Norton's Tumour of the Larynx, which was declared to be an epithelioma; on Mr. Hickman's supposed Green Pea, by Dr. Bristowe, which was described as composed of lowly vegetable organisms, and no pea at all; on Mr. Arnott's specimen of Scrofulous Testicle, the description of which was confirmed; and on Dr. Southey's specimen of Supra-renal Capsules, which were described as characteristic of Addison's disease.

Dr. Greenhow then brought before the Society an Isolated Mass like a billiard-ball, which lay detached in a pouch in the cardiac end of the stomach of a woman aged 50. The mass had no appearance of any attachment, but rolled out when the abdomen was opened. In its centre the mass was opaque and yellow; its outer portions were white and something like a uterine fibroid. This part was made up of a network of fibres. There were two other and very similar masses, but much smaller, attached to the great omentum. One ovary was enlarged, and a cyst in it contained hair. Mr. Shaw had shown a billiard-ball tumour similar to this removed from the sac of a hernia, but the specimen was smaller than this.

Mr. J. Wood had examined Mr. Shaw's specimen, and had found other specimens in the London museums. He thought they were formed from the appendices epiploicæ, which seemed to furnish a nucleus. Dr. Wilks, who examined the specimen along with him, differed as to their further mode of growth. He had met with two instances of such masses in hernial sacs, and diagnosed them. He was inclined to believe that they grew by accretion from the fluid of an irritated peritoneum.

Dr. Cayley said this one was not so formed, inasmuch as it had a distinct peritoneal layer; besides, two smaller ones were seen attached to the omentum.

Mr. Gay said he had found some tumours like these in veins, apparently from clotted blood. They were shiny, and had a coat like peritoneum.

Mr. Hulke had examined one smaller than this, and was led to confirm Virchow's notion that they originated in the appendices epiploicæ. One of these bodies became fatty, and formed a nucleus; on this a sub-peritoneal fibrous coat was formed. Their appearance was totally different from the bodies described by Mr. Gay.

Mr. Arnott thought a good deal was to be said for Mr. Wood's view, inasmuch as the mass contained no nuclei and no vessels. An appearance resembling an epithelial covering might be formed on its surface without attachment; and there was no appearance of a pedicle. He had seen the same structure in old lymphomata.

Dr. Greenhow, in support of his opinion, referred to the existence of other tumours still *in situ*. The centre of this mass was calcareous; not a blood-clot, as described by Mr. Gay.

The Secretary read from the *Transactions* the account of Mr. Shaw's case; and the specimen was referred to the Morbid Growth Committee.

Dr. Fagge then showed, for Dr. Kitchener, an enormously Hypertrophied Kidney from a newly-born calf. It was cystic, and contained urine in the cysts.

Mr. George Lawson narrated the sequel of an already recorded case of Blood-cyst of the Thigh. The leg had been amputated and examined by Mr. Arnott, and the cyst found filled with spindle-shaped cells. The patient died in 1871, after the glands of the neck had enlarged, and the stump had been ecchymosed and fluctuating. Just before death there

was most troublesome shortness of breath; and after death a large quantity of brain-like cancerous matter was found in the mediastinum and right thorax, springing from the lung. There was much clotted blood in the stump, and a cyst of cancerous matter with grumous contents in the same situation.

Mr. Lawson also showed a Tumour of the Eyeball, giving rise to what he thought was not an uncommon history. The patient complained of loss of eyesight, and became glaucomatous. Iridectomy had been performed, but that was of no use; so the eye was extirpated, and found to contain a tumour of the choroid. The eye was set in a jelly of glycerine and calf's-foot jelly, with a little creasote—a very good plan, which seemed likely to succeed. It had kept six months.

Dr. Cayley said ordinary glycerine jelly became yellow and opaque by keeping.

Mr. Hogg said it also decayed.

The form of the secondary cancer-cells could not be elicited.

Mr. Waren Tay had observed a similar case in the London Hospital. The loss of sight came on slowly, and glaucoma was induced. The eye was removed, and the tumour found.

Dr. Leared exhibited some Renal Calculi of Cystic Oxide. The patient was a domestic servant, who from time to time had passed these calculi for ten years. Recently she had had four or five attacks. She only suffered from pain during the attack, which seemed limited to the left kidney.

Mr. T. Norton exhibited a Malignant Growth from the Thigh, removed by amputation. The patient suffered from great pain and swelling. The limb was increased in size, and seemed likely to suppurate. There were intervals of great pain, then ease comparatively. (Referred to the Morbid Growth Committee.)

Dr. Greenhow exhibited a Lung from a patient, aged 30, who died of Capillary Bronchitis. In the right lung was a large cavity lined with false membrane, and not apparently communicating with the tubes. There were three similar but smaller cavities on the left side. There were no symptoms of phthisis.

The same gentleman also exhibited the Lung of a Female, aged 56, who had suffered more or less from Bronchitis since she was 30. Latterly the cough had been constant, and she had several attacks of pleurisy. She died suddenly of hæmoptysis. The left lung was very small, the right enlarged; and there was one large cyst in the left, opening into the bronchus. In this was the open mouth of a considerable vessel. He fancied there had been pneumonia, then breaking-down of the lung substance.

Dr. Green said, in the first specimen the lung was very considerably invaded by fibrous tissue.

Dr. Leared asked if the small lung was cirrhosed.

Dr. Green again remarked on the curious absence of induration, though much fibrous tissue was present.

Dr. C. T. Williams had seen several lungs like the first—few of the second form. What was the diagnosis in the second case?

Dr. Baümler asked if there was contraction of the side in the second case.

Dr. Greenhow, in reply, said there was no cirrhosis, and the diagnosis was imperfect. The left bronchus was plugged.

Dr. Thorowgood exhibited a Salivary Calculus, removed by Dr. Prosser James. The mass began twelve years ago, and ultimately caused an abscess, which opened externally. The calculus consisted mainly of phosphate of lime.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, January 20.

Dr. Druitt, President, in the Chair.

Dr. Cormack, Medical Officer of Health for Lambeth, was proposed as an Ordinary Member, and Dr. Sneade Browne as an Associate Member.

Dr. Dudfield, Medical Officer of Health, brought before the meeting the subject of the keeping of pigs in the metropolis, and described in detail a district in his parish in which this trade was carried on on a large scale, to the detriment of a large surrounding population. He had immense difficulty in dealing with the nuisance; in fact, he was obliged to secure the attendance of six policemen when he went to inspect the place. He thought the same regulations ought to be enforced in respect of piggeries as was done in the case of cow-houses. There was not only the nuisance arising from the pigs themselves, but one even greater was occasioned by the boiling of their food. He contended that under present Acts the evil was difficult to get at. The men in question were well-to-do, and laughed at the infliction of a slight fine.

Dr. Stallard had inspected the locality in question, and did not find it in such an unsatisfactory state as had been described. He thought it would be difficult to prohibit entirely the keeping of pigs in the metropolis. Besides this, people had something in the nature of vested interests which ought to be taken into consideration. The wisest plan would be to attack the system on the ground of a general nuisance whenever pigs were not properly kept.

Dr. Crace Calvert, F.R.S., then delivered an address "On the Effects produced in Protoplasmic Life by the Action of Heat and Concentrated Solutions of various Chemical Substances." After describing the minute care he had taken in making the various experiments, the speaker said that he should limit himself to his own experiments and observations. Speaking first of spontaneous generation, Dr. Crace Calvert said his experiments were against it. He found that the best substance to experiment with was distilled water, after having, with great care and trouble, destroyed all trace of organic matter, so that he could keep it for months without life appearing. He then introduced some of this water into small tubes and placed them near putrid meat, and from time to time opened and examined the tubes, until life was observed. In the distilled water in his flask no life appeared, whereas he found that in the water of the tubes life appeared in twenty days. If the production were spontaneous, why, he asked, did not life appear in the liquid contained in the enclosed flask as well as in the tubes which had been exposed to the atmosphere, or where means of impregnating with germ were permitted? The next subject was that of the influence of temperature. Taking some putrid gelatine and other solutions containing substances in a state of decay, he enclosed them in small tubes and heated them successively to 100°, 200°, 300°, and 400°. Microscopic life was destroyed in most cases at about 200°, there being only one class of vibrio life surviving the heat of 300°. Pursuing his experiments upon disinfectants, he dipped some calico into a putrid solution and inserted it in a tube. At 300° the calico was slightly softened; still there was life. He then took the white of egg, and mixed one part of albumen with four parts of water, and experimented with them in adding one-thousandth part of thirty different substances—acids, alkalies, chlorides, sulphates, phosphates, etc. The details of these results were represented in a large diagram. With respect to bleaching powder, Dr. Crace Calvert mentioned that he had for years regarded it as antiseptic. Being on a visit to Paris, the Inspector-General of French Cemeteries told him that not only was it not a disinfectant, but that it actually aided putrefaction. Hardly able to believe this, he, on his return to Manchester, made a series of experiments, and found the assertion correct. Proceeding to give the results of his experiments with the thirty different substances, he said that in some vibrio life developed itself, but fungus life did not until some days later. In some vibrio life abounded, but there were no fungi. An interesting point was to notice that acids promoted fungus life. With alkalies the case was reversed; vibrio life appeared, but no fungi. The substances ranged themselves under four distinct heads:—1. Those which absolutely prevented both vibrio and fungus life. These consisted of only two substances, carbolic and cresylic acids. 2. Those which presented vibrio but not fungus life. Of these, also, there were only two—chloride of zinc and bichloride of mercury. 3. Those in which there appeared vibrios, but no fungi. To this class belonged seven substances out of those he studied—sulphate of quinine, pepper, turpentine, prussic acid, etc. 4. Those which presented neither vibrio nor fungus life. This class was by far the most numerous, numbering no less than twenty-seven substances. The last class might be further subdivided into those emitting a decomposing smell and those that did not. Dr. Crace Calvert also made another series of experiments with putrid solutions of albumen and gelatine, adding to them a one-thousandth part of each of the thirty substances above alluded to. He examined them at the time of inserting the germs, again after twenty-four hours, again after six days, and again after sixteen days. The acids, generally speaking, seemed at first to paralyse low life; but after twenty-four hours most of the animals began to assume their usual movements. Of the alkalies, soda alone affected their vitality. After a few days there was a small quantity of life, and the odour became offensive. Dr. Crace Calvert examined several chlorides, but principally dwelt on the interesting fact that little or no change was produced by

chlorine and chloride of lime when first added. After several days there was a large quantity of life in the solution and a putrid smell. The most powerful substances were the chlorides of zinc and mercury, carbolic acid, and cresylic acid. Although they prevented the production of life, they never entirely destroyed it, a certain percentage constantly remaining. With sulphate of quinine locomotiveness was almost destroyed for a time, but returned completely after a few days, showing that this substance does not prevent vibrio, but does completely prevent the production of fungi. Charcoal did not destroy vibrio life, but completely prevented the production of noxious odours. In concluding, Dr. Crace Calvert said he was making two other series of experiments—one on putrefaction, the other on the decomposition of eggs. These he would be happy to bring before the Association on a future occasion, when the results were fully matured.

The thanks of the meeting were cordially voted to the speaker for his interesting address.

Dr. Letheby, while acknowledging their great indebtedness to Dr. Calvert, remarked that the results arrived at by him differed from those of Dr. Sanderson and other authorities. The discrepancy arose, no doubt, from the immense difficulty of excluding disturbing causes while performing this delicate experiment. To this probably was due the different degrees of temperature assigned by different people as that at which these animals were destroyed. As to what was said by Dr. Calvert about chloride of lime and other substances tending to increase putrefaction, every agent, he said, that tends to develope oxygen does so. Many of the experiments made by Dr. Calvert were very remarkable, especially that with sulphate of quinine. He thought his result might be due to the sulphuric acid rather than to the quinine. It was a great step to discover what hindered and what developed microscopic life, yet they must be on their guard against jumping to the conclusion that the results of disease depending on the supposed development of low organisms in the blood were equally controllable.

Dr. Barclay believed that vibrio and fungus life had very little to do with disease. He believed disease arose from putrefactive change in dead animal tissue, and from this, while undergoing a special process of change, being introduced into the living tissue, and superinducing a similar change in the living tissue.

The Chairman said he had been deeply interested in Dr. Calvert's address, and he gathered from it that it was easier to prevent the development of low organisms than to destroy them after development.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 23.

Surgeon-Major Bostock, Vice-President, in the Chair.

Dr. William Rutherford communicated a paper "On the Excitability of Different Parts of the Trunk of a Spinal Nerve, with a 'Schema of the Circulation.'" In this communication Professor Pflüger's experiments regarding the excitability of different parts of the trunks of the motor fibres of spinal nerves are described, and his "avalanche hypothesis" founded thereon criticised. The faulty character of his experiments is pointed out, and those performed by the author are narrated. The latter conclusively show that Pflüger's explanation of his experiments is untenable; that the avalanche hypothesis regarding the transmission of nerve-force has no fact in its support; and that the excitability of both the *afferent* and *efferent* fibres of a spinal nerve is inversely as the distance from the spinal cord. The possible explanations of this singular and novel fact are considered, and the bearing of this discovery upon our ideas regarding the nature of the influence which travels along a nerve is indicated.

Mr. Henry Power always considered Pflüger's hypothesis fraught with difficulty—that force should gain by being expended. Did Dr. Rutherford think the increased excitability due to the thinness of the coats of the medullated fibres near the spinal cord?

Dr. Rutherford was glad of the suggestion; meantime, he had not made up his mind.

Dr. Radcliffe was glad to hear a refutation of Pflüger's views. Did not the fact that nerves die centripetally explain something?

Dr. Rutherford sometimes cut the nerve at the distant electrodes, when the cutting for a time caused the excitability to increase, so as almost to equal that of the other and cerebral end.

Mr. Power asked if Dr. Rutherford had seen Schiff's experiments, which went to show that the excitability of the pneumogastric was greatest near the brain?

Dr. Rutherford had done so. They confirmed his view.

A paper by Deputy Inspector-General C. A. Gordon, M.D., C.B., was communicated by Mr. Berkeley Hill, on "Proposed Forms of Surgical Returns and Reports to be used in War." The object of the proposed forms is to present information regarding wounds received in battle and operations performed in their treatment in a manner calculated to facilitate comparison regarding their severity, results, prevalence, and fatality of complications usually met with, and also to arrange observations upon subjects of Surgical interest in a definite manner. Table No. 1: In this form wounds are arranged (*a*) according to their position, (*b*) according to severity, and (*c*) the deep parts of importance implicated. The different columns into which the form is divided indicate the circumstances under which wounded have been admitted, the several conditions in which they are discharged, and, in regard to those who die, the causes of death, distinguishing particularly the cases of mortality by hospital diseases and complications. Table 2: This form is intended to contain a record of the various operations performed. The operations are arranged according to their kind, as—(*a*) amputations, (*b*) excisions, (*c*) resections, (*d*) ligatures, (*e*) trephining, (*f*) extractions, (*g*) other operations. The first four classes are severally arranged according to region or part of the body, and in regard to each case the return will show the manner in which it was admitted, period of operation, the circumstances under which the patient is discharged, and, in cases of death, the precise cause, as far as practicable, of the fatal termination. Form 3, or Report: This presents different "headings" under which information may be arranged for the purpose of being subsequently collected and condensed. These headings include the following points—viz., (1) those referring to Form 1; (2) those referring to Form 2; (3) conditions of individual Hospitals; (4) as to certain diseases that may appear among the wounded; (5) as to the important question of hæmorrhages; (6) as to the relative success of primary and secondary operations; (7) as to other Surgical points of interest, some of which are enumerated; (8) as to the character of wounds by new projectiles and other arms; and (9) such other general subjects as are not included under any other of the above heads.

The Chairman thought that, as an Army Surgeon, he ought to tender his thanks to Dr. Gordon.

Mr. Wyatt said that the more succinct the form of notes to be taken in actual campaign, the more likely were they to be accurate. One would hardly be able to note all the points suggested by Dr. Gordon under such circumstances. He had drawn up a form which was approved of in the operations before Paris. It was important to have a form which would be available for use afterwards. In all the civil Hospitals of Paris one definite form was used. It would be well could we have a similar one adopted in London.

Dr. Charles Mayo agreed with Mr. Wyatt as to the difficulties in the way of filling up these forms. Field statistics were very uncertain, especially when the army was constantly moving on. Then it would be impossible to fill them up, however desirable to do so.

Dr. Rutherford next demonstrated the uses of a New Schema of the Circulation, and the meeting adjourned.

OBITUARY.

GEORGE EDWARD DAY, M.D., F.R.S.

Last week we recorded the decease of this amiable and scientific Physician, and valued contributor to our pages, which took place at Andersey, Torquay, on January 31.

George Edward Day was born on August 4, 1815, at Tenby. He was the son of George Day, a gentleman of fortune, who owned an estate in Glamorganshire known as Maurnabon. His misfortunes began early in life, for his father was induced, in 1825, by an old schoolfellow, to join him in the bank at Swansea, and in six months the bank failed, and Mr. Day lost £60,000. His mother, *née* Miss Jane Hale, was a lineal descendant of Sir Matthew Hale, the famous Chief Justice. She was connected with the Wigbys, Greswolds (of Malvern Hall), St. Johns, Perrits, and other good Worcestershire and Gloucestershire families.

Our deceased friend, the eldest son, was sent, after the Swansea Bank failure, to live with his grandmother, Mrs. Hale, at Hopley Court, near Hereford. This house was his home, and here he was educated by a private tutor till he went to Cambridge, where he was entered at Trinity College, and migrated to Pembroke; graduated B.A. in 1837, and M.A. in 1840. On leaving Cambridge, in 1837, he went to Edinburgh to study Medicine.

During his connexion with this University and the Extra-Academical Schools he distinguished himself in all his classes, taking Dr. Handyside's Gold Medal for Anatomy in the sessions of 1838-39 and 1839-40; Dr. Simpson's Silver Medal in the Midwifery class, 1840-41; besides Dr. Skae's and Dr. Atkin's prizes in 1840 and 1841.

During his residence in Edinburgh he was intimately associated with John Goodsir, Edward Forbes, George Wilson, James Forbes, and other distinguished men of that period. In 1842 he became a Licentiate, and in 1848 a Fellow of the Royal College of Physicians. In 1849 he took an M.D. degree at Giessen to qualify him for the Chair of Medicine at St. Andrews, which he obtained in the same year. In 1857 he met with the accident which broke down his health; he fell through a horizontal chimney connected with the white-lead mines at Helvellyn, and after remaining three hours unable to extricate himself, he was saved by some young men, who had heard his occasional calls for help. He fractured the right arm at the surgical neck of the humerus and two inches above the elbow, and dislocated the elbow. The upper fracture remained disunited, and gradually caused complete deformity of the shoulder. Eighteen months after the accident acute rheumatism affected the right knee as the result of his having stood on damp ground; the joint became implicated, synovitis came on, and he never recovered the power of using the leg. In 1863 he relinquished the chair of Medicine and came to Torquay, but never regained his health.

Both before and after this lamentable accident his industry was untiring. He wrote a work on the "Diseases of Advanced Life," and on "Chemistry in its relation to Physiology and Medicine;" he translated Simon's "Animal Chemistry" and part of Rokitansky's "Pathological Anatomy" for the Sydenham Society, Lehmann's "Physiological Chemistry" for the Cavendish Society, and most of the Medical and scientific articles in "Chambers' Encyclopædia." His scientific and Professional knowledge was vast and exact, and his judgment sound and temperate. Almost up to the last he retained his habit of literary work, though struggling against increasing debility and exhaustion, which, however, was not to be traced in his writings. Few who read the reviews and scientific notices in our own columns could have surmised that they were written by an invalid disabled by ununited fracture of one arm, helpless upon the legs, and distracted by a host of minor sufferings arising out of his state of rheumatism and prostration. His handwriting was most peculiar, done as it was with an arm that had to be lifted on to the writing-table. At last, about Christmas, he caught severe influenza, and, though not entirely confined to his bed for more than three days, he never rallied, and spite of the affectionate care of those who long had nursed him and watched his growing feebleness, he expired on the last day of January.

WILLIAM RAYNER, M.R.C.S. Eng., L.S.A. Lond.,

Carried on practice in Uxbridge from the year 1826, succeeding his father. He held appointments under the Poor-law Board from its establishment—at first the district of Ickenham Russlip and Eastcot; this he gave up, and for the last twenty-three years was Medical Officer to the Workhouse. Many years ago he took great interest in a volunteer corps, of which he was successively captain and captain-commandant, and of which he, at the time of his death, held the colours. It was mainly owing to his exertions that a literary and scientific institution was formed in Uxbridge, and in connexion with which he delivered several series of lectures (popular) upon the senses and comparative anatomy, illustrated by diagrams enlarged by aid of a magic-lantern and drawn in water colours by himself. He also took a prominent part in the establishment of the present Local Board of Health; but although he worked very strenuously till the Board was formed, the inhabitants had so little regard for his services, that he was not even elected on it as a member. He was a great lover of natural history, and at one time had a very considerable number of English birds confined together in a large aviary, and he wrote many articles upon their habits in several periodicals. In later years his taste was occupied in the cultivation of plants, and he had the honour of flowering for the first time in England the "Lily of the Empress," as it is called in its native country, the Brazils, and it has been named after him by Dr. Hooker. He operated successfully for strangulated hernia upon an infant only six weeks old, probably the youngest case on record. He also amputated at the knee-joint, for compound comminuted fracture of tibia and fibula, the leg of a woman who was over 80 years; she also had compound fracture of the arm of the same side, the result of the same accident. She is still alive, and is now upwards of 90. During the last few years of his life his sight became very much impaired, so that he was quite unable to read or write.

A few years ago he met with a very unusual accident—rupture of the rectus femoris—and this occurred again last year, but in the other leg. He was attacked last autumn with the malady (angina pectoris) which has now terminated his life, after many months of great suffering and distress, at the age of 70.

ABRAHAM P. BALDERSON, L.S.A.

Mr. Balderson was a well-known Surgeon in general practice in London, but more particularly so as the "assistant of the late Sir Astley Cooper," as the notices of his death in the newspapers style him. Mr. Balderson received his Medical education at Guy's Hospital, and became a Licentiate of the Society of Apothecaries in 1826. He commenced practice in Poland-street soon after, and for many years had a very extensive general practice. He subsequently removed to Great Marlborough-street, where he was joined in partnership with Mr. J. D. Tucker, who now carries on the business, Mr. Balderson having retired altogether some years since. It is a remarkable fact that he did occasionally represent Sir A. Cooper in Conduit-street, and saw patients for him, and yet was never a qualified Surgeon—was never a member of the College of Surgeons. Sir Astley was of great service to his *protégé* in recommending him wherever or whenever he could. His estrangement with his nephew Bransby may explain, but scarcely justify, his conduct. Mr. Balderson was a man of slender acquirements, but of good common-sense and unflagging industry. He was kind-hearted and charitable, and spent the last few years of his life in doing good. He died in Woburn-square at the age of 66.

DR. WILLIAM BAIRD, F.R.S., F.L.S.,

Died on January 27, after a long and painful illness. He was born at Eccles, in Berwickshire, in 1803; educated at Edinburgh, Dublin, and Paris, for the Medical Profession. He received in 1823 an appointment as Surgeon from the East India Company. This gave him an opportunity of visiting India, China, and many other countries, the natural history of which he carefully studied. In September, 1841, he was appointed an assistant in the zoological department of the British Museum, in which capacity he remained till his death. He was a great author, and has made most valuable contributions to science by his publications. His most important work was a "Natural History of the British Entomostraca," which was published under the auspices of the Ray Society in 1850. An excellent naturalist has, by his death, been lost to the world of science. He was highly esteemed by all who knew him for his kindly and genial nature.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 1:—

Breeze, Richard Goodwin, 197, Euston-road.
Mahomed, Fred. Henry Horatio Akbar, Brighton.

The following gentleman also on the same day passed his first Professional examination:—

Barron, Fred. William, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Brady, J. B. J., L.R.C.S.I., L.K.&Q.C.P.I., L.M.—Junior House-Surgeon to the Sunderland Infirmary, *vice* S. H. Whitcroft, L.R.C.P. Edin., etc., resigned.

Matheson, L. M., L.F.P.S. Glasg.—Medical Officer for the Parish of Kilmuir, Skye.

WADDY, H. E., L.R.C.P. Lond., M.R.C.S.E.—Surgeon to the Gloucester Lying-in Charity, *vice* T. S. Ellis, M.R.C.S.E., L.S.A., resigned.

MILITARY APPOINTMENTS.

60TH FOOT.—Staff Assistant-Surgeon William Godfrey Martelli, to be Assistant-Surgeon, *vice* William Silver Oliver, M.D., promoted on the Staff.

MEDICAL DEPARTMENT.—Assistant-Surgeon William Silver Oliver, M.D., from the 60th Foot, to be Staff Surgeon, *vice* Alfred Hooper, placed upon half-pay; Assistant-Surgeon John Henry Hughes, M.D., from the 38th Foot, to be Staff Assistant-Surgeon, *vice* William Godfrey Martelli, appointed to the 60th Foot.

BIRTHS.

ADAMS.—On February 1, at Martock, Somerset, the wife of J. Dixon Adams, M.D., of a daughter.

HAMILTON.—On February 1, at St. Mary's-terrace, Peckham, the wife of Dr. M. Hamilton, R.N., of a daughter.

LEVICK.—On January 29, at West Ham, Essex, the wife of George Levick, Surgeon, etc., of a son.

MOORE.—On January 28, at Cambridge-heath, the wife of Dr. Moore, of a daughter.

ROSE.—On February 5, at Mile-end, the wife of Dr. C. Rose, of a daughter.

SMITH.—On January 29, at 18, William-street, Regent's-park, the wife of Dr. Walter Smith, of a son, stillborn.

STEPHENSON.—On January 29, at Beverley, Yorkshire, the wife of W. Stephenson, Surgeon, of a son.

MARRIAGES.

BLANDY—BAINSFATHER.—On January 30, at St. Andrew's, Wells-street, Frederick John, son of William Blandy, Esq., of Westwood, Tylehurst, Berks, to Anne Jane, second daughter of the late George Bainsfather, M.D., 101, Harley-street, late Physician-General, Bombay.

BOSWORTH—HALL.—On February 1, at St. Nicholas Church, Sutton, John Routledge Bosworth, Surgeon, second son of John Bosworth, Esq., of the War Department, to Emily Sophia, youngest daughter of John R. Hall, Esq., J.P., of The Grange, Sutton.

CARLESS—OGSTON.—On February 1, at 9, Golden-square, Aberdeen, by the Rev. Henry Cowan, Edward Nicolls Carless, M.B., C.M., Devizes, to Amelia, youngest daughter of the late Alex. Ogston, Esq., of Ardoe.

GLENCROSS—BRICKWELL.—On January 18, at Sawbridgeworth, Herts, Frederick John Glencross, Thurlby, Bourn, Lincolnshire, Surgeon, to Caroline, youngest daughter of John Brickwell, Esq.

INGLIS—FEENEY.—On February 1, at the parish church, Edgbaston, Alexander Inglis, M.D., Worcester, to Florence, second daughter of the late John Frederick Feeney, Esq., Edgbaston, Birmingham.

LACEY—KIRBELL.—On January 31, at St. Michael's Church, Chenies, Bucks, Thomas Warner Lacey, L.R.C.P. Lond., of Plumstead, Kent, to Sarah Anne (Daisy), youngest daughter of Mr. Edward Kirbell, of Latimer, Bucks.

LLOYD—TARRANT.—On February 1, at the parish church of St. Marylebone, Henry James Lloyd, M.D., of 57, Margaret-street, Cavendish-square, to Florence, third daughter of the late William Tarrant, of Westcroft-place, Hammersmith.

MONRO—MARGAREY.—On February 1, at Stoke Church, Devonport, Edward William, second son of Henry Monro, M.D., of Cavendish-square, London, to Arabel Sophia, second daughter of P. J. Margarey, Esq.

PORTER—WILLIAMS.—On Tuesday, February 6, at Ardingly, Sussex, William Elliot Porter, Surgeon, of Lindfield, youngest son of the late Rev. J. T. Porter, formerly of The Close, Salisbury, to Julia Martha, only daughter of the late H. W. Williams, Esq., solicitor, and granddaughter of the late Thomas Gibbs Crawfurd, Esq., of Paxhill-park, Lindfield, Sussex.

SNELL—CHAPMAN.—On February 1, at Holy Trinity Church, Brompton, Ebenezer Snell, Surgeon, of Barrowden, eldest son of H. H. Snell, Esq., of Leeds, to Annie, third daughter of John Chapman, Esq., of South-street, Brompton.

DEATHS.

BALDERSON, A. T., L.S.A., for many years assistant to Sir Astley Cooper, at 37, Woburn-square, on February 3, in the 68th year of his age.

DALTON, ANN, wife of Wm. Dalton, M.R.C.P. and F.R.C.S., late of Cheltenham, at Peachley, Bournemouth, on February 2.

HAMMERTON, THOMAS, Esq., late of 112, Piccadilly, W., at Cheltenham, on February 2, in his 84th year.

LOWDELL, SUSANNA, relict of Joseph Lowdell, Surgeon, at 217, Brixton-road, S.W., on January 31, in her 85th year.

QUEKETT, ISABELLA MARY ANNE, widow of the late John Quekett, F.R.S., F.L.S., etc., Professor of Histology at the Royal College of Surgeons, at 13, Delamere-crescent, Westbourne-square, on February 6, aged 55.

ROBERTS, MATILDA EUPHEMIA, the beloved wife of Charles Roberts, Surgeon, at Uxbridge, on February 1.

ST. JOHN, CHARLES, M.R.C.S.E., of 2, Cambridge-gardens, Kilburn, elder son of the late Charles St. John, Esq., of Barbadoes, at 28, Maryland-road, W. (the residence of his brother-in-law), on February 1, aged 33.

TOWNSEND, CHARLES, Surgeon, of Pakenham-road, Edgbaston, and Temple-row, Birmingham, after a short illness, on January 29.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BLOOMSBURY DISPENSARY.—Resident Medical Officer. Must be duly qualified. Applications to the Secretary, on or before February 17. Election on the 19th.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Dental House-Surgeon. Applications and testimonials to the Honorary Secretary, on or before February 14.

KENT AND CANTERBURY HOSPITAL.—Dispenser and Assistant House-Surgeon. Must be duly qualified and registered. Applications to Mr. T. Southee, on March 15. The duties will commence on March 31.

MARGATE ROYAL SEA-BATHING INFIRMARY.—Resident Surgeon. Must have some legal qualification to practise. Applications to the Secretary, on or before February 29.

MIDDLESEX HOSPITAL, W.—Physician. Full particulars may be obtained upon application to Mr. H. M. Evans, Secretary-Superintendent, on or before February 20.

MILE-END OLD TOWN UNION.—Medical Officer for the North District. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications to Mr. E. J. Southwell, Guardians' Offices, Buncroft-road, Mile-end, E., on or before February 15.

NEWARK HOSPITAL AND DISPENSARY.—Resident Medical Officer and Secretary. Candidates must possess both Medical and Surgical qualifications. Applications to the Secretary, on or before February 13.

NORTH WALES COUNTIES LUNATIC ASYLUM, DENBIGH.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. John Robinson, Clerk to the Visitors, on or before February 20.

NOTTINGHAM DISPENSARY.—Resident Surgeon and Assistant Resident Surgeon. Double qualifications necessary. Applications to the Secretary, on or before February 12. Election on the 26th.

WESTMINSTER GENERAL DISPENSARY, GERRARD-STREET, SOHO, W.—Hon. Surgeon. Must be F. or M.R.C.S.E., not practising pharmacy or midwifery. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTMINSTER GENERAL DISPENSARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. M. Norris, on or before March 1. Election on the 7th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

St. Thomas's Union.—Mr. Philip C. Hayman has resigned the Woodbury District; salary £65 12s. per annum.

Settle Union.—Mr. Francis Green has resigned the Workhouse; salary £18 per annum.

Uxbridge Union.—The Workhouse is vacant; salary £50 per annum.

APPOINTMENTS.

North Bierley Union.—Edward Bryan, M.R.C.S. Eng., L.S.A., to the Sixth District.

Poole Union.—Edward P. Philpots, M.D., B.M., M.C. Univ. Aberd., to the Third District.

Toxteth-park Township.—Thos. F. Morrish, M.R.C.S. Eng., L.S.A., to the Second District.

DR. JOHN BUSKLEY BRADBURY, of Downing College, has been appointed Linacre Lecturer in Physic at St. John's College, Cambridge, *vice* Dr. Paget, appointed Regius Professor of Physic.

MESSRS. BURGESS, RICHARDS, AND JARVIS have been re-elected District Medical Officers of Health for Bethnal-green.

THE GOVERNMENT has sanctioned a liberal expenditure, extending over two years, for investigating the causes and nature of cholera in the Jubbulpore district.

AT a special meeting of the Association of Medical Officers of Health, held on Thursday last, the 8th inst., at the Scottish Corporation Hall, Crane-court, Fleet-street, a paper was read by Mr. Wm. Acton, on the question "Whether the Contagious Diseases Act shall be Repealed, Continued, or Extended to the General Population, founded on the Minutes of Evidence lately given before the Royal Commission."

THE Vice-Consul of Her Britannic Majesty at the city of Bolivar writes to the Consul-General at Caracas—"An old woman, named Mariquita Orfile, has discovered an efficacious remedy for the yellow fever and black vomit, which has completely cured several persons. This remedy is the juice of the leaves of the vervain plant, which is obtained by bruising, and is taken in small doses three times a day. Injections of the same juice are also administered every two hours until the intestines are completely relieved of their contents. All the Medical Practitioners here have adopted the use of the remedy, and consequently very few, if any, persons now die of those terrible diseases referred to. The leaves of the female plant are used."

DINNER GIVEN BY DR. BUTCHER, OF DUBLIN.—On Monday, the 5th inst., Dr. Richard G. Butcher, Lecturer on Operative Surgery at Sir P. Dun's Hospital, and Examiner in Surgery in the University of Dublin, entertained about one hundred members of the Profession at dinner in the Ancient Concert-rooms, Dublin. Sir Dominic Corrigan, Bart., M.P. (the President of the King and Queen's College of Physicians), Dr. Banks, Sir William Wilde, the Rev. Professor Haughton, Dr. George H. Porter (Surgeon to the Queen), and many other

leading Medical men were among the guests. The healths of her Majesty the Queen and of the Prince of Wales were drunk with enthusiasm. In proposing the health of the host on the occasion, Sir Dominic Corrigan spoke of the necessity for combined action on the part of the Profession in securing a high social position in the community. Some admirable part-singing pleasantly diversified the evening's entertainment, which was in every respect a complete success.

Hunterian Oration.—At a meeting of the Council of the Royal College of Surgeons of England on the 8th inst., Mr. Henry Hancock, the Senior Vice-President, was nominated, and consented, to deliver the Hunterian Oration in the ensuing year.

The French Indemnity Subscription.—The subscription set on foot by the ladies of Alsace towards the raising of the fund for the indemnity, seems spreading fast in France, and in the *Union Médicale* of February 3 is an eloquent letter from Madame Jeannel, the wife of Dr. Jeannel, addressed to her *consœurs*, calls on the wives of Medical Practitioners in the name of the "ardent patriotism" which she says sentimentally, if not quite accurately, "distinguishes women, and especially French women," to organise a special subscription in aid of the effort "to speedily liberate our invaded brethren and reconquer our independence." In the National Assembly the proposal for a national subscription has been brought forward by Professor Bouisson, of Montpellier, who promises to contribute himself 10,000 francs. In political circles, however, the proposed subscription is looked upon as a futile procedure.

Professor Wilson, F.R.S.—This gentleman will bring his course of lectures on "Dermatology" to a close on Wednesday next, the 14th inst., and be succeeded by Professor Flower, F.R.S., who will deliver eighteen lectures on the "Modifications of the Organs of Digestion in the Vertebrata," commencing on Friday next, the 16th inst. The following is Mr. Flower's programme, viz.:—"The parts which will come under consideration in this course are the mouth, lips, cheeks, palate, tongue, salivary glands, fauces, pharynx, œsophagus, stomach, intestinal canal, liver, and pancreas. The modifications of the structure and functions of these parts will be treated of in detail in the various animals composing the class Mammalia, in the following order:—Primates, Lemuroidea, Carnivora, Insectivora, Chiroptera, Rodentia, Ungulata, Hyracoidea, Proboscidea, Sirenia, Cetacea, Edentata, Marsupialia, Monotremata. If time should permit, a review of the principal variations of the same parts in the other vertebrata will follow." The lectures will be illustrated as fully as possible by specimens from the Museum and by diagrams. The course will conclude on Wednesday, March 27; and some time in June next Professor Holmes will commence his course of lectures on the "Surgical Treatment of Aneurism in its Various Forms."

The Female Medical Students.—Miss Jex Blake has protested against the recent decision of the Edinburgh University Court on the female Medical student question. A reply to her protest has been forwarded to Miss Jex Blake by the Secretary of the University Court. After referring to various points in the protest he says—"On the assumption that while you at present decline the offer made by the Court with reference to certificates of proficiency, you now ask merely that arrangements should be made for completing the Medical education of yourself and the other ladies on behalf of whom you write, I am to state that the Court are quite ready to meet your views. If, therefore, the names of extra-academical teachers of the required Medical subjects be submitted by yourself, or by the Senatus, the Court will be prepared to consider the respective fitness of the persons so named to be authorised to hold Medical classes for women who have in this or former sessions been matriculated students of the University, and also the conditions and regulations under which such classes should be held. It is, however, to be distinctly understood that such arrangements are not to be founded on as implying any right in women to obtain Medical degrees, or as conferring any such right upon the students referred to."

Demonstration of the Students of the University of Edinburgh.—At the conclusion of Sir William Sterling Maxwell's address, a large body of the students assembled outside the Music-hall, and, headed by a band improvised for the occasion, the principal instruments in which were penny whistles and children's trumpets, marched by way of Prince's-street to the quadrangle of the University. Here a programme was speedily drawn up, and immediately carried into effect. To the number of three or four hundred, the students proceeded in procession, four abreast, to St. Andrew-square, and, opposite the premises of the Lord Provost, they set up a terrible hooting and yelling, to indicate their disapprobation of his Lordship's actions in regard to the education of the lady Medical students. At the conclusion of this unwelcome serenade, the processionists marched along Queen-street, and when passing the Merchant Maiden Schools they gallantly cheered the inmates, many of whom acknowledged the compliment by waving their handkerchiefs. Continuing their progress westwards, they arrived at Professor Lister's house, in Charlotte-square, and a deputation, consisting of Messrs. Rees and A. D. Stewart, went up to the door, and acquainted the Professor with the nature of the demonstration. Professor Lister then came forward and briefly addressed the crowd. He said he did not know whether the demonstration was or was not intended as a compliment to him. If it were complimentary to all the Professors of the University then he was glad to see them, but it would have pleased them more had the students behaved better to the rector of their own choice. Although what he had said might not please them, his words were meant in good part. Having given three cheers for Professor Lister, the students next visited in succession Professor Spence's, in Ainslie-place, Sir Robert Christison's, Dr. Bell's, and Dr. Annandale's. They subsequently marched back to the University, and on passing the *Scotsman* office, in Cockburn-street, gave vent to their feelings by continued groans and hisses. Coming up the High-street the students congregated in front of the *Courant* office and cheered lustily. Going in a southerly direction, they gave three cheers for Mr. Livingstone, bookseller, and then proceeded by way of Nicholson-street to Buccleuch-place, on a visit to Miss Sophia Jex Blake. Naturally enough, people turned out in all directions to witness the somewhat unusual sight of 300 or 400 students in procession. In Buccleuch-place a good-looking young lady was standing at her own door, watching the demonstration. Such a temptation could not be resisted. Two or three students made a rush up the steps, and one of them succeeded in obtaining the much-coveted kiss. The students then went to Miss Jex Blake's house, and, although they pulled the door-bell with much vigour, that lady did not deign to acknowledge their presence. Shortly afterwards the procession broke up.—*Edinburgh Courant.*

Composition and Quality of the Metropolitan Waters in January, 1872.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	21·57	0·094	0·126	0·008	15·1	3·8
West Middlesex .	20·27	0·034	0·119	0·001	15·3	3·3
Southwark & Vauxhall . . .	20·77	0·115	0·119	0·008	15·0	3·8
Chelsea . . .	21·43	0·098	0·120	0·004	15·4	3·9
Lambeth . . .	...	...	...	...	...	...
Other Companies.						
Kent . . .	26·83	0·013	0·312	0·000	20·4	6·0
New River . .	20·47	0·021	0·119	0·002	15·4	3·6
East London . .	23·00	0·068	0·136	0·003	16·0	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in the case of the Grand Junction and of the Southwark and Vauxhall Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 102,446,507 gallons; and the number of houses supplied was 487,230. This is at the rate of 31·4 gallons per head of the population daily.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

We are glad to see that our "young friend" Mr. Neale, who expressed himself as so well satisfied with the Matriculation Examination of the University of London, obtained the second place in the honour list at the last examination, *exceptis excipiendis.*

Fothergill tells us that four years ago Mrs. F. went into the Samaritan Hospital with an ovarian tumour, and went successfully through the operation of ovariotomy. On January 22, 1871, she was safely delivered of twins by Dr. Skegg, M.D., Northumberland-street, Strand. The mother and twins are doing well.

Chelmsford.—Yes; the quarrel is a very "pretty one as it stands." We have no desire to enter into local squabbles. We dealt with the question in its relation to the public and the Profession, and we do not see any reason to modify the opinion expressed in the last number of this journal. We may state that we think the *Chelmsford Chronicle* has behaved well in the matter.

THE "YOUNG" FAMILIES.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A correspondent, in your last number, inquired if there was any family connexion between the celebrated Dr. Young and his son or nephew the late Mr. Young, of Sackville-street, and Mr. George Young, of the City. I can answer that there was not. Mr. George Young was the brother of the celebrated actor, Charles Young, and was for many years in extensive practice in Frederick's-place, Old Jewry, in the next house to that which has been occupied by Mr. Coulson for nearly forty years past. On the retirement of Mr. Young, his house was taken by Mr. E. A. Lloyd, of St. Bartholomew's, who subsequently removed to Mr. Abernethy's house in Bedford-row. I am, &c., J. F. C.

COMMUNICATIONS have been received from—

Mr. BALMANNO SQUIRE; Mr. DALE; Mr. A. MACLEOD; Mr. COWLARD; Mr. SNELL; Mr. F. P. STAPLES; Dr. VINEN; Dr. STEVENSON; Dr. RADCLIFFE; Dr. MUNK; Mr. E. MORGAN; Mr. WADDY; Mr. M. NORRIS; Mr. GLENCROSS; Dr. NEALE; Dr. RUMSEY; Mr. G. REID; Mr. R. EDIS; Mr. J. W. BLACK; Mr. H. C. LAWRENCE; Mr. RAYNER; Mr. J. TEASDALE; Mr. H. R. BELL; Dr. THOROWGOOD; Dr. MOORE; Mr. MAUNDER; Dr. LETHEBY; Dr. ANDREW SMART; Mr. ROWAND; Mr. C. A. FOX; Mr. C. WELCH; Dr. BAKEWELL; Mr. H. ARNOTT; Mr. F. A. MAHOMED; Dr. R. D. POWELL; Mr. J. CHATTO; Dr. LIONEL BEALE.

BOOKS RECEIVED—

Cobbold on Worms—Supplement to Wats's Dictionary of Chemistry—Antisepticity in Surgery, by E. Lund, F.R.C.S.—Lund's Suggestion for a Ready Method of Recording Surgical Cases in Hospital Practice—Transactions of the Odontological Society—Report of the Northumberland and Durham Medical Society—Dyson Wood on the Present Condition of Political Liberalism in England—Dyson Wood on Social Politics—Report of the Board of Health of the City of New York—Harris's Principles and Practice of Dentistry.

PERIODICALS AND NEWSPAPERS RECEIVED—

Pharmaceutical Journal—Chelmsford Chronicle—Kettering Monthly News—Borough of Marylebone Mercury—Nature—Practitioner (February)—Temperance Record—Cincinnati Clinic—Philadelphia Public Ledger Almanac—Medical Press and Circular—East London Observer.

APPOINTMENTS FOR THE WEEK.

February 10. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9¼ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westmioster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakespeare's Time."

12. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2¼ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Silver, "On Mitral Stenosis" (communicated by the President). Mr. Walter Coulson, "On Lithotomy after Lithotrity."

13. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m. Mr. J. N. Radcliffe, "The recent Diffusion of Cholera in Europe."

SOCIETY OF ARTS, 8 p.m. Meeting.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Clinical Meeting. Dr. Wynn Williams, "Case of Artificial Anus consequent upon Umbilical Hernia."

ROYAL INSTITUTION, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

16. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 9 p.m. Dr. Gladstone, F.R.S., M.R.I., "On the Crystallisation of Silver and other Metals."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 3, 1872.

BIRTHS.

Births of Boys, 1292; Girls, 1216; Total, 2508.
Average of 10 corresponding weeks, 1862-71, 2245·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	710	713	1423
Average of the ten years 1862-71	802·0	783·5	1585·5
Average corrected to increased population	...	...	1734
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	4	3	1	9	...	3	1	2
North ...	751668	20	6	5	1	32	1	6	2	...
Central ...	333887	...	6	...	1	18	...	...	2	...
East	639928	7	9	6	...	21	...	4	3	2
South	966132	22	7	18	1	32	...	3	1	2
Total	3251804	52	32	32	4	115	1	16	9	6

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·697 in.
Mean temperature	44·4°
Highest point of thermometer	54·2°
Lowest point of thermometer	36·3°
Mean dew-point temperature	40·1°
General direction of wind	S.W. & S.S.W.
Whole amount of rain in the week	0·04 in.

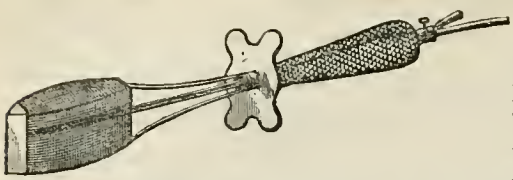
BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 3, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Feb. 3.	Deaths Registered during the week ending Feb. 3.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2508	1423	54·2	36·3	44·4	6·89	0·04	0·10
Portsmouth ...	115455	12·1	90	55	54·2	28·8	42·6	5·89	0·18	0·46
Norwich	81105	10·9	59	61	51·0	33·5	42·4	5·78	0·23	0·58
Bristol	186128	39·8	125	87	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	53	37	53·9	35·8	45·1	7·28	0·91	2·31
Birmingham ...	350164	44·7	290	145	53·6	35·5	45·7	7·61	0·72	1·83
Leicester	99143	31·0	93	31	53·0	33·7	44·4	6·89	0·36	0·91
Nottingham ...	88225	41·2	64	49	53·8	34·1	45·0	7·22	0·44	1·12
Liverpool	499897	97·9	410	273	56·4	34·6	45·4	7·44	0·45	1·14
Manchester ...	†352759	78·6	262	205	55·3	33·0	44·8	7·11	0·63	1·60
Salford	127923	24·7	100	71	55·2	30·9	44·5	6·95	0·65	1·65
Oldham	84004	20·2	70	43	...	...	...	...	...	...
Bradford	151720	23·0	138	87	56·0	37·5	47·6	8·66	0·18	0·46
Leeds	266564	12·4	249	135	56·0	36·0	46·5	8·05	0·46	1·17
Sheffield	247847	10·9	195	141	53·2	34·5	45·2	7·33	0·73	1·85
Hull	124976	35·1	104	67	54·0	31·0	43·5	6·39	0·45	1·14
Sunderland ...	100665	30·4	84	53	...	...	...	...	...	...
Newcastle-on-Tyne	130764	21·5	98	66	54·0	37·0	45·1	7·28	0·41	1·04
Edinburgh	205146	46·3	115	131	54·0	31·0	43·4	6·33	0·49	1·02
Glasgow	489136	94·8	376	285	...	...	...	...	...	...
Dublin	310565	31·9	185	232	56·2	35·8	47·2	8·44	0·76	1·93
Total of 21 Towns in United Kingd'm	7394345	34·0	5668	3677	56·4	28·8	44·0	7·17	0·47	1·19

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·70 in. The highest was 29·99 in. on Sunday morning, and the lowest 29·40 in. on Thursday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,693, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the correctednumber for 1871.



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(The late Mr. BRUCE'S.)

The Instrument consists essentially of two tubes connected together, one of which may be attached to a gas-receiver or to an ordinary gas-jet, and serves as the burner; the other tube is inclined to the former at a slight angle, and serves as a Blow-pipe. The accessory parts of the Instrument consist of the following:—

1st. An indiarubber ball, capable of containing about 110 cubic inches of gas, which may be readily filled from any ordinary gas-jet by means of a pump-ball. In cases in which the gas-jet is conveniently situated, this receiver may be dispensed with, and the burner connected directly with the pipe by means of an elastic tube.

2nd. Three or more small platinum cups of various forms, adapted to the different purposes for which the Cautery may be applied. One of these cups is hemispherical, one conical, and one terminates in a probe-like extremity. Other forms adapted for special purposes have been made, but are not contained in the ordinary cases. To facilitate removal of the cups whilst heated, a small metal clip has been introduced.

3rd. Shields of different forms to protect the surrounding parts during the application of the Cautery. These consist of discs of metal and ivory, mounted upon handles, and perforated by holes of various sizes, and a plate, with a slit in the centre, to allow the Cautery to be applied along a line.

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ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

CUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 122.)

PART IV.

EXAMPLES OF SUCCESS AND FAILURE IN PRACTICE.

Pneumonia: Treatment—General Plan: Extremes to be avoided, but Treatment varied with the Type: Failures: Successes: Evil Consequences of Excessive Use of Stimulants.

Treatment.—In the early stage of acute pneumonia, during the feverish reaction after the chill or period of collapse, in young and vigorous subjects, I have still no doubt of the superior efficacy of antiphlogistic remedies over all others. As Consulting Physicians, we do not often see the disease in this early stage, and in such subjects; and therefore we may join in the remark now often made, "How rarely bloodletting is ever employed!" But I cannot subscribe to the sweeping condemnation of this measure made by my lamented friend the late Dr. Todd and his followers in this matter; nor do I by any means approve of the highly stimulating practice which he substituted for it. Referring to an earlier period of my practice, I can recall to mind cases in which pneumonia in its first stage, with rusty expectoration, fine crepitation, strong pulse, and ardent fever, was cleared away and cured in a few hours by bleeding, general and local, aided by tartar emetic and salines. The effect was too immediate to admit of a doubt; and I would contrast these prompt and unequivocal results with the tardy and doubtful cures described by the advocates of the stimulating plan. Tartarised antimony is a most valuable aid to bloodletting at the same early stage; and in most ordinary cases may be substituted for it. I first observed the use of this agent in the practice of my illustrious teacher, Laennec; but he gave much larger doses than appear to be necessary. Doses of from the eighth of a grain to half a grain every two, three, or four hours are as effectual as larger doses, and are more easy and safe in administration. It may properly be exhibited in an effervescing saline of citrate of potash with nitre, to the diuretic and cooling properties of which I attach much importance. In fact, I find these diuretic salines of great utility through the whole inflammatory period of the disease, and I believe they help to restore to the renal secretion its proper constituents, the absence of which is a prominent feature of the disease.

No sooner does the inflammatory engorgement begin to pass into hepatisation, than bloodletting and the other sedative means lose their efficacy, and, with increasing weakness of pulse, may be absolutely injurious. At this period mercury (particularly calomel with a little opium) is more useful, together with large and repeated blisters; and these, together with the salines, now improved by the addition of carbonate of ammonia, are the best remedies for this stage. It has appeared to me that the useful operation of mercury is connected with its action on the liver and intestines more than with its affecting the gums, the appearance of the bilious or dark green stools being often followed by improvement in the symptoms. As hepatisation proceeds (and in cases not arrested early it will proceed in spite of treatment) the skin cools and the pulse fails in strength; and then frequent liquid nutriment, together with wine and other stimulants (particularly carbonate of ammonia), are required to keep up the powers of circulation, respiration, and expectoration; and the improvement which will often follow their use is very striking. I suppose we have all of us seen patients rescued from an approach to sinking by a timely and judicious use of stimulants and nourishment at the proper period; and observe—this treatment, which for the sthenic forms of inflammation in the young and robust is fit only for the after-stage of the disease, is necessary even from the first in the asthenic type, and in feeble and aged subjects; and the only antiphlogistics to be ventured on then are blisters, mild mercurials, and saline diuretics with ammonia. There is doubtless in pneumonia, more than in some other severe inflammations, a tendency to pass into an asthenic or typhoid state; and this I take to be due to the manner in which the blood becomes affected, both by the retention of the excrementitious matter already noticed, and also by the manner in which it becomes contaminated with the products of inflammation developed in so large a vascular plexus, and so near the centre of the circulation.

Thus, the sources of danger in pneumonia, and therefore the causes of failure and death, are not only in the lung itself, by interruption to respiration from obstruction in the air-cells and tubes, and to the circulation, by coagulation of blood in the pulmonary vessels, but also in the blood generally, by cachæmia and pyæmia, and in the heart and system at large, by asthenia. You can perceive, therefore, why, in the treatment of pneumonia in its successive stages, or in its different forms, we have to use, and use freely, the most opposite remedies (bloodletting and stimulants), and yet be rational and consistent in our practice.

Pneumonia is undoubtedly a formidable disease, and, according to the reports of French authors, the mortality ranges from 9 per cent. in ages from 10 to 30, up to 60 and 80 per cent. in ages from 60 to 80; but I cannot find in my notes evidence of anything like this mortality. The cases of which I have notes, within the period from which I take my samples, are not numerous—not exceeding thirty—and the recorded deaths are only three. The history of these three will show that treatment had not a fair chance.

One was the case of a lady, about 30, whom I was requested to see by the late Dr. Darling. He had been called in only the day before, *the patient previously having been treated homœopathically*—in other words, had not been treated at all; and the disease had advanced to extensive hepatisation, with collapse of the vital powers, beyond the reach of Medical aid. She sank the following day—the victim, I truly believe, of homœopathic quackery.

The second case was that of a gentleman, aged 34, seen in the winter of 1849. Six days before, after prolonged exposure to wet and cold, he was attacked with severe rigors and pains in left chest, and great oppression; and although he had been actively treated by cupping, tartarised antimony, calomel and opium, and blisters, I found him unrelieved, and expressing his conviction that he could not recover. In truth, the chances were fearfully against him; for, in addition to the signs of double pneumonia, there were friction-sounds in the left back and accompanying the heart's motions, with a weak and rapid pulse, and clammy skin. And he did sink in two days—an example of the failure of Medicine from the overwhelming amount of disease. On post-mortem examination, both lungs were found extensively hepatised, and the pericardium as well as the pleuræ coated with lymph. But such cases are very rare—I do not recollect more than three or four in other periods of my experience.

The third fatal case belongs to a group that are not so uncommon — pneumonia of the aged. An old lady of fourscore had a shivering fit, followed by pain of the side, cough, and great oppression, frequent unsteady pulse, and slight delirium. I saw her on the second day after the attack, and found the fine crepitation in both lungs, with the loud large tubular sounds denoting consolidation over a great part of the right back. The circulation was beginning to fail, and, although stimulants were freely and assiduously given, there was no power of resisting the disease, and death took place the next day. Chomel used to say that he rarely knew an instance of recovery from pneumonia after the 70th year; but I can recall at least half a dozen instances of recovery at and above that age, one being an old lady of 83, another a veteran general officer of 88. But then our practice in such cases is very different from that commonly pursued in France. At this age the vital powers are so apt to succumb to disease that it is necessary from the first to sustain them by continued stimulation and nutrition, even whilst we are using mild mercurials, saline eliminants, and large blisters to derive from the lungs. My experience has taught me to put great faith in large blisters, both in asthenic pneumonia and in bronchitis, and I am confident that I have seen many lives saved by their means. Instead of being lowering, they give a salutary excitement to the labouring circulation; and the copious serous discharge which they produce from the skin tends to relieve the congested lung without wasting the red blood that is so needed to sustain the functions. Small blisters tease as much as large ones, and are far inferior in the relief they afford.

Passing now to the list of *successes* in pneumonia, I shall only detain you by a brief notice of a few severe cases in which the pneumonia was double, affecting both lungs.

In February, 1851, I was called to see a lady, aged 38, with

pneumonia, in the first and second stages, occupying the whole of the right lung. It had come on a week before, after weaning her infant and much anxiety; and, in addition to the usual symptoms, there was occasional delirium, and the urine was albuminous, but of high specific gravity. I considered these symptoms to be mutually connected, and to have reference also to the recent weaning. In a few days the left lung was also attacked, and became considerably hepatised; but fortunately the right lung began to clear before much of the left was involved; and after some days of extreme danger the urine became abundant, and with copious deposit, and the patient made a gradual and complete recovery—the lungs at the end of two months being quite free from deposit. The chief remedies employed were local bloodletting and antimonial salines at first; then mercurials, salines, and blisters; lastly, mineral acids and other mild tonics: nutrient diet with mild stimulants being continued throughout.

A gentleman, aged 40, in March, 1853, after six weeks of gonorrhœa and orchitis, was severely chilled, and had extensive pneumonia of the right lung. The symptoms had begun to abate after the use of venesection and tartarised antimony, but a more expectant treatment having been substituted by a Physician called in, the inflammation returned with great severity, attacking both lungs, but again yielded to mercurials, antimonial salines, and free blistering; and the patient was well in four weeks, and has enjoyed good health since.

I have notes of several cases of boys at Harrow and other schools, at ages from 12 to 17, becoming the subjects of double pneumonia of a formidable character. These boys get heated at football or some other violent exercise, and then throw themselves on the damp grass, or take off their coats to cool themselves, or stand about "keeping base"; and the chill operating on the exhausted body causes extreme congestion in the lungs, the circulation of which has been weakened by the previous violent respiratory efforts. The result is pneumonia, generally of asthenic type, commonly double, attended with much prostration of strength, sometimes slight delirium, much coated tongue, sordes on the teeth, and other indications which exemplify the connexions of pneumonia with blood disease to which I have directed your attention. Yet these cases, ugly as they seem, generally do well—in fact I have no record of any fatal case—and this without any very active treatment. Youth is in their favour; and if the spread and obstructive influence of the disease is checked by large warm poultices, or even blisters, the eliminating processes aided by mild mercurials and salines, sometimes with ammonia, and the strength sustained by frequent liquid nutriment and moderate quantities of wine—the issue will generally be favourable. I very much doubt that the same success would attend a much more energetic practice, whether of the antiphlogistic or of the stimulating kind.

Note added in 1872.—The following extract from our recent work on "Pulmonary Consumption" (p. 335) will explain the view which I take of the utility of stimulants and other sustaining measures in the treatment of asthenic inflammations, and will further show the grounds on which I did not hesitate to add my name to the recent Declaration against the abuse of alcoholic stimulants that has excited so much comment:—

"Whether the inflammation be pneumonic or bronchial, it throws out bioplasms or sarcophytes, which, if they languish and concrete, block up the tissues and interfere with respiration and circulation; but if kept alive and active, may migrate and clear out of the affected tissues and membranes in the form of pus and mucus-cells and other excretable matter. Now, we may in some measure promote this result by the judicious use of stimulants and nutriment in such forms and quantities as the patient will bear. Often the stomach is weak, and cannot bear much or solid food, and then beef-tea and other soups and broths should be given in small quantities and at short intervals, together with the diluted wine or spirit most agreeable to the patient. . . . . After such attacks of inflammation as have required the use of antimony and salines, or even after those lower forms benefited by carbonate of ammonia, the operation of dilute mineral acids, especially the nitric, is often very grateful to the palate and stomach, cleansing the tongue and restoring the appetite and the power to take and digest solid food; and the sooner this can be effected the better. It may sometimes be commenced during a remission of the febrile symptoms in the morning, even when salines are still necessary in the evening and night; and if the remission increases to intermission of the fever, quinine, salicine, or calumbo may be added to the morning dose. This should be our aim—to attempt as early as possible to change the treatment from the antiphlogistic to the tonic and sustaining, still retaining the aid of nocturnal soothing salines and moderate counter-irritation to keep in check any remains of the inflammatory irritation.

"I feel quite sure that this is a much safer and more successful practice than that which has been much recommended of late, giving strong tonics, such as iron and quinine, boldly throughout an inflammatory attack, without regard to their immediate effects of increasing pain, cough, tightness of breath, and heat of skin.(a) I am equally opposed to the practice of keeping patients with pneumonia and bronchitis in a state of constant semi-intoxication with brandy, in quantities much greater than are necessary merely to sustain the failing powers. No doubt patients do sometimes recover under this treatment; but their recovery is more tardy than that from a more moderate and rational plan; and convalescence and subsequent health are often impaired by the craving for, and indulgence in, stimulants, which this practice produces. I have known several, and have heard of more, cases of dipsomania which dated their origin from this spirituous medication." It should therefore be our object, in prescribing stimulants in the treatment of disease, not to exceed the quantity necessary for the temporary weakness, and to diminish or withdraw them by degrees in proportion as this is removed.

(To be continued.)

ORIGINAL COMMUNICATIONS.

OVARIOTOMY—ANTISEPTIC DRESSINGS—RECOVERY.

By W. NEWMAN, M.D. Lond., F.R.C.S. Eng.

S. A., aged 32, was admitted into Stamford Infirmary, June 13, 1871. Married; one child, 5 years old. Menstruation regular until the last three months; since that time has been every fortnight. Enlargement of abdomen for the past twelve months, steadily increasing. Thin, but not unhealthy-looking. Abdomen uniformly enlarged—thirty-six inches in circumference at umbilicus. Dulness on percussion over lower three-fourths of abdomen, both in front and in flanks; this unaltered by any change of position. Fluctuation very evident. More resistance to deep pressure in left than in right iliac region.

Vaginal Examination.—Cervix small and os uteri healthy. Much resistance to be felt at roof of vagina, and there seems to be more downward bulging and resistance to the finger on the left than on the right side.

July 3.—I performed paracentesis of the abdomen, removing thirteen pints of greenish-yellow fluid; sp. gr. 1028; alkaline; coagulated by heat to one-half of whole bulk. After the tapping a mass the size of a fœtal head could be felt in the left iliac region, extending across to the mid-line and upwards to within two inches from the umbilicus. Much relief followed the tapping.

25th.—Is anxious to go home for a time. Fluid is reaccumulating. Abdomen measures thirty-two inches.

September 13.—Readmitted as in-patient; in very fair health; abdomen now measures thirty-five inches.

21st.—Menstruation ceased on 16th. Large warm water enema given this morning. 2.30 p.m.: Chloroform given and operation of ovariotomy undertaken. All the staff of the Infirmary present. The catheter passed. Surface of abdomen washed with carbolic acid lotion (1 in 20), and carbolic acid spray (1 in 100) kept up steadily throughout the whole operation. The sponges employed were all wetted with lotion of the same strength. An incision made from umbilicus to pubes through outside tissues down to the peritoneum; this covering was care-

(a) If it be not to the strong tonic and stimulant treatment (which had been certainly adopted in some of them), I know not to what to ascribe the frightful hyperpyrexia in certain cases of acute rheumatism recently described by Dr. Wilson Fox and others. He seems to have averted a fatal result in some of these cases by what appears a very hazardous measure—cold bath and ice applications; but the struggle between life and death was fearfully long and doubtful; and one feels constrained to ask, "Cannot this formidable hyperpyrexia be prevented or met by gentler means?" I never met with such a case, in my own practice, during the ten years when I had charge of patients at University College Hospital. Out of 163 cases of acute rheumatism only two died—one with peri- and endo-carditis supervening on old heart disease; the other of double asthenic pneumonia. The remaining 161 were cured after an average stay of twenty-four days in the Hospital. The chief treatment was by alkalies and colchicum, followed by bark. Local bloodletting and blisters were sometimes added when the heart was attacked; and in all cases of severe pain, opium, generally combined with calomel.

fully opened on a director. A thick-walled cyst at once came into view; no omentum or intestine to be seen. Slight and easily broken-down adhesions existed on the whole of the front part of the tumour between this and the peritoneum; no adhesions to internal organs. I tapped the cyst with large trocar, drawing off eight pints of fluid; it was then easy to draw out the greater part of the mass, and several separate hard collections of cystic growth came out also. The larger part of the solid growth was found to lie anterior to the uterus, low down in the true pelvis, and it was not possible to dislodge this by traction until I introduced two fingers into the vagina and made firm upward pressure. The difficulty apparently arose from the mass lying beneath the promontory of the sacrum. The pedicle was very long and thin, almost riband-like. This was tied in two halves by some carbolised catgut, two strong strands on either side, and then returned into the abdomen. Two points, which bled freely on the peritoneal surface, just within the pelvis, were also tied with catgut, and all the ligature-ends cut short. No ovarian fluid escaped into the abdominal cavity; all the blood was carefully sponged out. Left ovary affected; right not implicated. Wound brought together by three sutures of flexible metallic wire, which included the peritoneum; a suture of carbolised silk between each two metallic sutures. Protective and antiseptic gauze closely applied over all, and retained in place by wide antiseptic bandage. She was then lifted back into bed, still asleep from anæsthetic. Pulse 90, good volume; catheter every four or five hours. 9 p.m.: Pulse 92; temperature 98°; some pain and sickness. 11.30 p.m.: More pain, and even iced milk is rejected. Subcutaneous injection of morphia (gr. ½).

22nd.—Has had some fair sleep. Pulse 112; temperature 99°. Complains of feeling faint. Twenty drops of brandy in iced water; nutrient enema (beef-tea and egg) every four hours; morphia injection (gr. ½) as may be needed. 6 p.m.: Pulse 120; temperature 98·6°; retching less. 10 p.m.: Pulse 120, not wiry; skin quite moist.

23rd.—Had a very fair night. Pulse 120, fair volume; respiration 24; temperature 100·2°. 10.30 a.m.: Changed gauze and dressings; no trace of redness or discharge; no more sickness. 10 p.m.: Pulse 116; respiration 20; temperature 100·6°; skin and tongue moist. Has dozed frequently; not in pain. Has had tea and milk; no sickness.

24th.—Metrostaxis set in. 10 a.m.: Good night. Pulse 112; temperature 100·4°. Wound dressed; no redness of edges, no discharge. 9 p.m.: Pulse 110; respiration 22; skin moist. Has been troubled with flatulence; abdomen not distended. Has morphia injection (gr. ½) about every six hours, and nutrient enema—beef-tea and brandy (egg omitted)—every four hours.

25th.—10.30 a.m.: Pulse 104; temperature 100°. Stitches removed; wound is apparently united. Abdomen rather flat than otherwise. Takes a little food (milk, etc.) by mouth. Complains of uneasy pain about lower part of abdomen. 9 p.m.: Pulse 108; respiration 22; temperature 101·2°. Says she is fairly comfortable. Metrostaxis, small in quantity, is steadily going on. Is glad to have the urine drawn off every four hours; says that this relieves the pain.

26th.—3 a.m.: Still in pain. Temperature 101·4°; pulse 120; respiration 22. 9 a.m.: Has feeling as if bowels would act; pain of bearing-down character. I made a vaginal examination, and found very manifest fluctuation in Douglas's space; some little pain on pressure upwards with the finger. Pulse 120; temperature 101·4°. Wound dressed; looks well; some little discharge on the gauze. Warm water enema given; a good quantity of liquid fæcal matter followed. An hour subsequently an enema of pulv. opii gr. ij., mucilage ʒij.; this was followed by much relief. Has no tenderness on pressure on abdomen. No symptom of active febrile disturbance; no rigor. 10.30 p.m.: Pulse 120; respiration 24; temperature 102°. Skin moist; tongue moist. Vaginal swelling as before; uterus pushed upwards and forwards. The fluctuation can be distinctly felt both by vagina and rectum. Opiate enema repeated.

27th.—10.30 a.m.: Pulse 108; respiration 20; temperature 101°. Has had a better night. Wound dressed. There has been discharge of several ounces of serous blood-stained fluid from about middle of wound; all has been taken up by gauze covering, and there is no trace of odour. Says that after retching last night she felt something give way, and soon had much relief. 10 p.m.: Pulse 104; respiration 22; temperature 100·2°. Has not been so comfortable to-day; feeling of sickness and occasional retching. Enema of warm water brought away a fair quantity of perfectly normal and semi-solid fæcal matter. Skin moist, and is said to have had free perspiration.

28th.—10 a.m.: Temperature 101°; pulse 98. About one ounce or a little more of serum on the gauze; no redness about wound. Metrostaxis (present for four days) now ceased; some hardness over pubes on right side; no pain on gentle pressure; abdomen not distended. 9 p.m.: Pulse 96; temperature 101°; respiration 22. Comfortable most part of the day; some fæcal motion, and since that time watery diarrhœa and pain. Through carelessness of nurse the lower part of wound has been quite uncovered for some little time, and at lips of wound there is now some surrounding redness; no odour from discharge.

29th.—11 a.m.: Pulse 100; temperature 101°; respiration 22. Has been troubled with pain and irritable purging; tenesmus relieved by opiate enemata; vaginal swelling even more decided and more tense. 3.30 p.m.: Temperature 102·6°; pulse 108. Flushed in face, anxious and restless; never so before since the operation. 9 p.m.: Temperature 101·6°; pulse 100. More comfortable than she was at 4 p.m.; complains much of pain at the lower part of back; has some (though not urgent) feeling of sickness; no diarrhœa the last few hours.

30th.—11 a.m.: Pulse 96; temperature 102°. Says she has had very much pain about the back through the night, and has not slept well. Wound dressed; some small quantity of serous blood-stained discharge on the gauze. The abdomen in the lower third is evidently enlarged, and more firm to the touch; vaginal swelling quite as evident, and very tense. 8.30 p.m.: The conditions of local distension and of increasing general distress were so marked, that, after careful consultation with my colleagues, it was decided to break up the lower part of the wound, and allow the contained fluid to escape. Chloroform was given; the carbolic acid spray employed as usual, and I then (with antiseptic finger) broke open the lower two inches of the wound. The adhesions gave way easily, and I soon reached the abdominal cavity. The moment that the finger was free in the cavity some dark-coloured and slightly offensive blood (to the amount of three ounces or more) welled up. I touched with the finger a floating and apparently natural fold of intestine, and reached well down into the true pelvis. No firm clot or solid matter was touched. A metallic suture introduced at upper part of newly made wound; the lower part left open. Had some fair sleep, with usual morphia injection.

October 1.—10 a.m.: Pulse 98; temperature 102°. Wound dressed; some quantity of dark bloody discharge on gauze; no odour; tongue quite moist, white coating. 10 p.m.: Pulse 96; temperature 102·4°. Says she is much relieved from pain. Abdomen smaller; no pain to the touch; a large quantity of dark blood-stained discharge on the gauze.

2nd.—9 a.m.: Pulse 94; temperature 100·4°. Has had a very fair night; abundant discharge; dressings have needed changing every five or six hours; no sickness or retching for last thirty-six hours; estimated that from twelve to twenty ounces of deeply stained serum have come away since the wound was opened; vaginal swelling much as before. 9 p.m.: Pulse 92; temperature 100·2°. Abdomen more flat; has taken food well, and is in all points feeling better.

3rd.—10.30 a.m.: Pulse 96; temperature 101·2°. Complains of sorethroat. Fauces are slightly red. Tinct. ferri mur. mxv. ex aq. ʒj. ter die. Discharge from wound less in quantity. 9 p.m.: Pulse 88; temperature 100·4°. A good result (solid motion) and much relief followed the use of enema of warm water. Is certainly better.

4th.—11 a.m. Pulse 84; temperature 99·2°. Fairly good night. Says she is very comfortable, and her general aspect is good. Wound dressed; about two ounces of dark broken-up blood on the gauze; no odour; no pus. 9 p.m.: Pulse 88; temperature 101°. Has had some meat for dinner, and enjoyed it; has also two eggs and more than a pint of porter daily; milk, too, in fair quantity.

6th.—Highest temperature 102·4°; but pulse only 92. Vaginal examination made. The swelling is still present, but not so large or so tense. Is doing very well.

7th.—Discharge quite inodorous; but, for the first time, some distinctly puriform fluid wells up through the wound. This may be due to some internal change, but more, I think, to an inadequate covering of the lower part of the wound.

9th.—Says she is quite comfortable. Abdomen much flattened; discharge distinctly pus; about one ounce on gauze night and morning, but quite without odour.

13th.—Doing very well; discharge is more watery now; quantity much as before. Vaginal examination made: the uterus is almost, if not quite, in normal place; still some fluid to be noted in Douglas's space; not at all tense.

15th.—Was much disturbed yesterday by screams of another patient. Temperature ran up to 103°, and she had racking headache; no abdominal discomfort, and no disturbance about

the wound. Headache relieved by twenty-minim doses of the tinct. digitalis. Is better on the whole to-day.

19th.—Headache gone; wound now filling up, and discharge scanty and inodorous. The vaginal swelling can no longer be detected, and uterus is evidently in normal position. She has pain and tenderness in left groin; for about two inches along line of femoral vein there is some little thickening; a local phlebitis. This crept on downwards to posterior tibial vein, and for some few days the left foot was œdematous.

21st.—Up for first time to-day; antiseptic dressings discontinued.

27th.—Sits up regularly, and is gaining strength; eats and sleeps well.

November 6.—The wound in abdominal wall not quite filled up; only a few drops of discharge (pus) now each day. She can stand upright, walk a few steps, and will shortly leave the Infirmary.

Remarks.—The above case is, I believe, the *first* in which the antiseptic treatment has been fairly applied in the operation of ovariotomy. My best thanks are due to Professor Lister for his great kindness in affording me this past summer the opportunities of watching the daily application and the marvellous results of antiseptic dressings. General and special Surgery will alike, I doubt not, profit by his teachings. The whole operation was undertaken and carried out from first to last under an abundant cloud of carbolic acid spray (1 to 100). Certainly this may be conceded: that the employment of this antiseptic spray had no prejudicial influence, and did not provoke mischief when freely brought into contact with a large serous cavity; no symptom of acute peritonitis was noted. The selection of the catgut ligature for the pedicle in preference to the more commonly used clamp was, I think, an error, and it is not impossible that the serious complication of large internal hæmorrhage may have been due to the slipping of some one of the ligatures employed. Further, too, I think it open to grave question whether it would not have been more wise to have introduced—say for the first twenty-four hours—a tent of carbolised oiled lint at the lower angle of the wound. The success that followed on the breaking-up of the wound, so as to allow the free escape of the effused blood, is of much interest. In this I only followed the teaching of well-known operators; but it can hardly be too much to claim for the antiseptic dressing a very material share in the recovery that followed in spite of the opening up to external influences of a very large collection of blood. That putrefaction did not happen was surely due to the careful exclusion of the external atmosphere as such; and as certainly, had septic changes once occurred, the patient could hardly have recovered. The question was carefully thought over more than once, whether it would not be best to puncture or incise the collection in the vaginal pouch of peritoneum. The main reason which decided me not to adopt this course was the certainty that the antiseptic treatment would then have been impossible, and I am heartily glad that the event has justified the decision so arrived at. The details given in the above paper are condensed from far more copious notes, and for these, taken constantly every three hours for more than a fortnight, as well as for most careful personal attention, my very best thanks are due to my friend Mr. A. T. Gibbings. But for his sedulous care, the ultimate result would have been far less favourable.

Stamford.

ON

LIGATURE OF THE SUBCLAVIAN ARTERY.

(A REPLY TO DR. BEACH'S CRITICISM.)

By Staff Assistant-Surgeon F. P. STAPLES.

THE number of the *Medical Times and Gazette* for November 18, 1871, contains an adverse criticism on a method I advocated some time ago for a more facile deligation of the subclavian artery than that in common use. Before noticing its details, I may remind your readers that the operation recommended differs from that commonly practised by the skin incision being made along the upper side of the subclavian triangle of the neck, or, in other words, along a line parallel to the normal course of the omo-hyoideus.(a)

Some advantages were claimed for what your correspondent has been pleased to term an innovation, of which the principal were as follows:—

1. The skin incision, not being immediately bounded by the unyielding clavicle, admits of easy retraction in both directions, consequently giving more space at the bottom of the wound, and thus free access to the vessel.

2. The risk of hæmorrhage obscuring the final steps of the operation from accidental wound of the supra-scapular vessels is lessened.

3. That the omo-hyoideus, fully exposed as it is in the incision recommended, is a more recognisable and a truer guide to the artery than the edge of the anterior scalenus.

The criticism deals with the last only, and against its successful adaptation to the operation under notice urges three objections, which may be briefly stated thus:—

1. The occasional want of, or other anomaly in the course of, the omo-hyoideus, and the probability of the case requiring operation being the occasional one where the anomaly obtains.

2. The chances of the Surgeon's embarrassment by the anomaly.

3. Increased risk for the patient resulting from embarrassment.

With regard to the first objection, I have to thank Dr. Beach for placing his experience on record, but will remark that, as the course of the omo-hyoideus must ever remain normal in an extremely large proportion of cases, the difficulty will present itself to the Surgeon about to operate as remotely problematical. Assuming, however, its existence in a case under operation, are the 2nd and 3rd points in the objection—viz., embarrassment of the Surgeon and increased risk to the patient—inevitable?

An anomalous distribution of the parts in the posterior triangle of the neck is calculated to disconcert the Surgeon, no matter by what method he essays to ligature the subclavian artery; and I need scarcely observe that the absence of the posterior belly of the omo-hyoid muscle is by no means the most embarrassing of these anomalies.(b) Practically, however, it is the most misguiding that is likely to occur in the course of the operation recommended; yet a careful consideration of it, based upon not a few dissections, scarcely seems to confirm the opinion that from its presence need necessarily follow frustrated efforts of the Surgeon or increased risks to the patient. The discovery of the anomaly will be made—(I am alluding to the absence of the posterior belly of the omo-hyoideus, and will pass over the other irregularities of the muscle as no more applicable to this than to any of the other methods in use)—immediately the deep cervical fascia has been divided, while the important parts in the space are undisturbed; then, in using the incision recommended, and keeping in the direction of the skin wound, a few scratches, if there is not much fat, will expose the vessel if placed normally, and if it is placed low down it will bring the Surgeon on to the body of the plexus, and by following this to its inner edge there ought to be no reasonable difficulty in finding the artery.

If, however, the efforts of the Surgeon are impeded, as stated to be likely in the criticism, although I think I have shown there need be no reason for such embarrassment, I may remark that in using the incision recommended he is not deprived of the assistance to be derived from the edge of the anterior scalenus.

A Surgeon is, no doubt, at liberty to draw his own conclusions from his anatomical labours, and to warn his Professional brethren of the difficulties by which his path has been impeded, and, on this understanding, the criticism should have passed unnoticed had the impeding embarrassments and promises of uncertainty resulted from a trial of the method criticised; but, as such is not the case, I have thought it necessary to occupy so much of your space to show that the condemnatory objections need create no alarm, and that they are based upon a remote probability, which, if accidentally present, need neither be embarrassing to the Surgeon nor full of risk to the patient.

Puchmurree, Central India.

THE South Shields Board of Guardians have voted £100 to Dr. Thompson, and £75 to Dr. Denham, for their extra services during the prevalence of small-pox in the town and district.

(a) It was not intended in the first paper, nor is it now, to institute in the written description of the proceeding a comparison of it with any of those methods by which large skin flaps are carried over the posterior triangle; nor with the methods by perpendicular or semilunar incision.

(b) For the anomalies of the subclavian space see Gray's "Anatomy," page 343. The dissections of the neck in Sir Wm. Fergusson's "Surgery." Allan Burns' "Observations on the Diseases of the Heart, etc., and on the Unusual Origin and Distribution of some of the Larger Arteries of the Human Body." Edinburgh, 1809.

THE RISE AND PROGRESS OF YELLOW FEVER IN BUENOS AYRES IN 1871.

By J. H. SCRIVENER, M.D. Lima,

A Short History of the Introduction of Yellow Fever into the Port of Buenos Ayres in 1858, and of its Reappearance and Propagation in 1871.

Yellow fever was imported into Buenos Ayres in 1858 and in 1871. In March, 1858, I received a note from Dr. Alsina (then Governor of Buenos Ayres) requesting me to be present at two post-mortem examinations at the Recoleta (the public cemetery of the city). This invitation I willingly accepted, as Dr. Alsina was aware that I had practised in Lima during the prevalence of yellow fever in that city; and as a pestilence was then raging in Buenos Ayres, about the nature of which Medical men were undecided, he wished me to ascertain if it was really the disease. I went to the cemetery, where I found the President of the College of Physicians and a number of its members, besides several Physicians of different nations. I had at that time retired from my Profession, and was holding the appointment of her Britannic Majesty's Acting Consul in Buenos Ayres.

On making the post-mortem examination of these two bodies, we found the same pathological signs which presented themselves in those who had died from yellow fever in Lima; we therefore came to the conclusion that it was the same disease.

The yellow fever prevailed in Buenos Ayres for about six weeks in 1858, and was confined to certain streets running parallel with the river. It disappeared suddenly with a strong south-westerly wind (called a *pampero*), after having carried off between 600 and 700 victims. The importation of this fever was clearly traced to the Royal Mail Steam Packet *Camila*, for three persons on board that vessel, among whom was the purser, died from it.

It is a remarkable fact that, previous to the appearance of yellow fever in Buenos Ayres, it had prevailed for many years in Rio Janeiro; yet, notwithstanding the uninterrupted intercourse between Rio Janeiro and the port of Buenos Ayres, it was not brought to the latter city till the end of March, 1858. The same fact was observed with respect to the yellow fever in Lima; for that disease prevailed for several years in the port of Guayaquil on the Pacific coast, and though there was frequent and uninterrupted intercourse between that port and that of Callao (six miles from the city of Lima), it was not imported into Lima until 1852.

During the outbreaks of yellow fever in 1842 and 1845 in Guayaquil, there were instances of persons who had the fever on board the northern steamers, and who disembarked in the port of Callao, and arrived in Lima, where they were attended by Medical men and by members of the family with whom they were staying, but yet no other person was attacked with the disease.

It has been remarked in Lima that it has been since the discovery of gold in California, and the constant rush of people and shipping from the Atlantic to the Pacific, that the epidemics of 1853, '54, and '55 have taken place in Peru; and it is remarkable that, since the arrival of great numbers of emigrants from Europe, the epidemics of 1866, '67, and '71 have occurred in Buenos Ayres.

It is impossible to know the sanitary condition of the numerous vessels that visited the River Plate ports during the periods referred to; we cannot, therefore, affirm anything with certainty on this subject. We know that some of them came from the ports of Brazil, where the yellow flag was hoisted half-mast high as the signal of cholera and yellow fever; but we are ignorant of the number of these vessels which arrived with their sickly crews, neither have we any means of ascertaining it, for every captain touching at Buenos Ayres had an interest in not divulging any facts that might subject his ship to the quarantine laws. Certainly there were vessels which came from the ports of Paraguay and Corrientes during those periods, where cholera and yellow fever prevailed.

The Buenos Ayres *Standard* attributes the importation of yellow fever to two causes: it states that a passenger in confinement at the Lazaretto of Ensenada borrowed a horse, rode into town, took to his bed, and recovered; but that his family died, then most of the people next door died from the disease, and so it spread through the whole district of San Telmo, the dirtiest and most populous in the city. It also states that at the same time a vessel with immigrants from Genoa, which had touched at Barcelona, had become infected there; that the captain threw overboard fourteen persons who had died of the fever, but, on entering the port of Buenos Ayres, he only presented his papers from Genoa, and landed his passengers, many of whom were doubtless infected.

Such facts, then, as these, which I have thus briefly related, show, I think, a striking resemblance in the growth of yellow fever in different latitudes in the south-west coast of Peru and the shores of the River Plate between 1849 and 1871.

The individual who conveyed the yellow fever to the town of Chareas, in Peru, was a soldier-deserter from the coast, and a native of Pisco. This man caught the contagion in Pisco, where he went, according to report, in search of a dead man's effects, and was carried home in a litter, a distance of six leagues. Those who came in contact with him took the fever, which soon became general in the towns and villages in the highlands of Peru. According to official reports, one-half of the population of Cuzco (the ancient capital of the Incas), consisting of 40,000 souls, fell victims to the disease.

It would appear to be clearly proved, by the preceding accounts, that the yellow fever was propagated by contagion. How can we explain, then, why persons arriving from an infected port with yellow fever, as in the case of those who arrived at Lima from Guayaquil in 1842 and 1845—several years previous to the development of the disease in that city—did not propagate it? Then, again, why vessels that came from the infected ports of Brazils to the River Plate ports previous to 1858 did not import it, whilst the soldier-deserter from the coast, a few years after the periods referred to, imported it into the towns and villages of the highlands of Peru; and a passenger from the Lazaretto of Ensenada, or more probably from the Genoese vessel, into the city of Buenos Ayres?

Dr. Jackson, in his work "Remarks on the Epidemic of Yellow Fever," throws no light on the subject. He says that "certain inexplicable conditions in the atmosphere facilitate the propagation of contagious diseases among the community; others are indifferent, as neither facilitating nor opposing; and some may be considered as negative, inasmuch as a disease inherently contagious does not spread, or spreads only in a very limited manner, and reluctantly, as it were, under the implied condition. The fact is obvious; the efficient cause is unknown; the ultimate cause is the preservation of the human race from extinction under the occurrence of a mortal contagious malady."

We have heard, from the best authority, that many of her Britannic Majesty's ships on the West Indian and North American coasts, whose crews were suffering from yellow fever, were cured from it, and the disease entirely removed, by the vessels going to a temperature of 60° of Fahrenheit. Yet we find, from the Medical writers in the Andes of Peru, that the disease struck down with the same severity and rapidity the miner in the highest and coldest mountains as the agriculturist in the balmy and warm temperature of the valleys. It seems to have been equally contagious in every climate and temperature in the highlands of Peru. It is estimated that the yellow fever proved fatal to one-fourth of the indigenous race of Peru.

I was exercising my Profession in Lima when the pyrexial disorders of 1852 and 1853 broke out; but they were only, as Dr. Archibald Smith justly observes, "the nascent and growing stages" of that mature yellow fever which burst forth with violence in January, 1854.

There were no primary and progressive stages of yellow fever previous to its outbreak in Buenos Ayres, but there were certain inexplicable conditions in the atmosphere which attracted the attention of the inhabitants. The weather was extremely sultry, and the thermometer of Fahrenheit ranged between 96° and 104° in the last days of December and the commencement of January; there was a density in the air which had not formerly been experienced; there had been a great drought for several months, and the river shrank on several occasions to an unusual distance from the shore. It is true that there were several sporadic cases of yellow fever in December of the previous year, but they created little or no alarm; they were, nevertheless, the harbingers of the greatest pestilence that ever afflicted the city.

Medical men, both native and foreign, were undecided as to the nature of the epidemic at its outbreak; some were of opinion that it was a typhus fever, others that it was icteroid typhus, and others declared it to be yellow fever.

I was in Buenos Ayres towards the conclusion of the fever in May last, and saw many who had been attacked with it, and being acquainted with it in consequence of my attendance on the sick in Lima in all its stages and forms, felt interested in obtaining from Medical men and reliable persons, who attended upon the sick, an account of the stages and forms of

the disease in that city. I am particularly indebted to Dr. Christiani and the Rev. Mr. Lett, who were present from the beginning to the end of the pestilence, for much valuable information on the subject.

It appears, from an account published by the Rev. T. E. Ash, B.A., Chaplain to the British Legation in Buenos Ayres, that "the yellow fever made its appearance in that city in the first week of last January, but at the beginning the only persons attacked by it were a few Italians, who were entirely ignorant of the nature of the disease; that if the alarm of that pestilence had been properly sounded by the authorities, the Medical men, the clergy, and the press, it would have helped considerably to crush out the incipient danger, and thereby saved some thousands of lives."

But, with due deference to this gentleman's opinion, I beg to observe that, if the alarm of the pestilence had been properly sounded, it could not have prevented the dreadful effects. That mysterious agent, yellow fever, or its epidemical influence, existed in the atmosphere, and no human means could have interrupted its course or impeded its pernicious effects. The district of San Telmo suffered more from the fever than any other quarter of the city, from causes only partially known. We know that if the apartments of the sick are crowded and ill-ventilated, they may be supposed to be charged with offensive material in a higher proportion than the common atmosphere, inasmuch as it has there less opportunity of being diffused; and it appears that such was the case in the district of San Telmo. "It was supposed," continues Mr. Ash, "that the ravages of the plague would be confined to San Telmo; hence no precautionary measures were taken. No person of note had succumbed to the fever."

We learn from this gentleman and the press that the disease progressed during the month of February; "that it passed from the parish of San Telmo to the Calle Paraguay and near to the Calle Florida; that the registered deaths in the beginning of the month did not exceed twenty daily; that the mortality increased rapidly towards the close of the month, and the deaths were from forty to fifty daily; that several persons of note had died of the fever, among whom were the venerable Irish pastor, Father Fahey, and the old and respected Dr. Ventura Bosch."

It appears that in March the pestilence spread with frightful rapidity, and that the greatest terror prevailed in all quarters of the town. The press endeavoured to calm the fears of the inhabitants by publishing fewer deaths than took place. The Government and public authorities were indefatigable in their efforts to adopt prompt measures suited to the exigency of the case, and a Lazaretto was established near the Once de Setiembre. We learn from Mr. Ash's statement that "the gravediggers at the South Cemetery were unable to keep pace with the mortality, and as many as seventy coffins were one night left overground; that by dint, however, of high wages, a larger number of workmen was obtained, who, in gangs of day and night service, aided by the moonlight, succeeded in getting through their dismal work." "In the middle of March," continues Mr. Ash," the plague may be said to have become general. The parish of Socorro, considered one of the healthiest of the city, was infected. In Calle Callao, our widest street, numerous cases occurred, and the most airy and best-ventilated parts of Buenos Ayres were the first and most severely attacked, whilst the centre for the time escaped. Governor Castro closed all the schools in the town. The mortality of the first week of March reached seventy daily, and on March 8 rose to 115. Physicians recommended everyone who could to leave the city. Those whose business required their presence in the town were advised to sleep in the suburbs. The panic had, unhappily, communicated itself to all classes, and it was said that more than half of the Physicians had fled. Those who remained were overburdened with work. It was remarkable that the epidemic followed the tract of those streets which had been flooded in March of last year. The houses in those parts had been mostly left in a filthy condition, the inhabitants returning to them after the floods had subsided, while piles of rotting clothing, etc., remained infecting the locality for some time after. And now the month of March again brought heavy rains, the Tercero (a rapid stream which runs through certain streets when there is a heavy rain) rose, and it is said that some of the people sick of the fever were drowned in their beds."

Mr. Ash also states that "there was much superstition among the lower classes, who fancied that the priests and Doctors were killing them by throwing powders in the streets every night. They refused the ordinary Medical attendance, and in some cases adopted the most ridiculous remedies, such as applying the entrails of chickens to the stomach of the sick person. The Lazaretto was now full; but the poorer people had such a horror of it, that its occupants were only those who were removed thither by the police—it was a by-word that no one left the place alive, and even the most wretched denizens preferred dying amid squalor and misery to being sent to what they looked upon as the vestibule to the cemetery. Towards the close of March the deaths reached 350 per day, and swept from among them several representative men. A second panic now ensued, greater than the first—waggons, carts, and every kind of vehicle were seized at any price to convey fugitives and furniture into the country. Some went with canvassed tents, and others in covered bullock carts; others took the railways to the remotest points, and many went away to ranchos on the Indian frontier."

All who have written on this great pestilence have stated that nothing could exceed the gloom and desolation that pervaded the city in April—that the streets were silent and desolate, save where a hearse appeared followed by a solitary coach; pieces of crape were hung from nearly every door; no signs of life were visible from the windows of the opened houses; the stillness of death reigned in every quarter, for there were no persons, no carts, no carriages, no movement of any kind in the streets. The mortality was now returned at 400 daily. The hotels were closed, as well as the chief coffee-houses, and even the clubs; and the city, as Mr. Ash states, "was like a ship abandoned at sea."

A Popular Committee had been formed, for providing accommodation and even comfort for the poorer classes, and were the means of saving many persons from a premature end. They published the following circular on April 20:—"There are barely 30,000 souls left in town, of whom 7000 are sick, and the death-rate is from 400 to 500 daily."

It appears that the pestilence reached its climax on April 10, when there were 503 deaths according to the official mortality-list, and 540 according to Mr. Ash's account, who states that the gravediggers toiled by the light of lanterns, and more than 1000 were interred on that day. Here it is worth relating that of 300 gravediggers employed not one died.

The epidemic had raged for 100 days, calculating from January 1 to April 10, when it commenced rapidly to decline, the mortality decreasing to one-half. It must be taken into consideration that at that period of the decrease the population was reduced to one-third—that is, about 60,000 inhabitants—the rest having taken up their quarters in the villages near the city and at their estates in different parts of the country.

From the commencement of May there was a great decline in the epidemic, and, subsequent to the 10th of that month, there were but from four to six new cases daily. It was at this date I arrived at Buenos Ayres and found that the city was thinly populated, although the inhabitants were returning rapidly to their homes. A new case, however, of the disease showed itself occasionally at the beginning of June, after the Medical Board had declared that it had ceased to exist.

It is estimated by the *Standard* that the yellow fever proved fatal to 26,200 persons in Buenos Ayres, but the official returns of deaths are 13,400: the former statement is considered as exaggerated, and the latter far below the true number. It is probable that we shall never know the accurate number; nor can we reasonably expect to do so, when we consider the misery and confusion which prevailed on the occasion. It is positively known that more than 10,000 Italians fell victims to the epidemic; they were of the lowest class of society, and extremely filthy in their habits. They slept in houses called *conventillos*, like sheep in a penfold (for which they paid twopence the night), and sixty of them were carried out dead from one of these houses. Thousands of the poor native class fell victims to the disease. Many of them were so suddenly and violently attacked that they had not the means of sending for a Medical man. There was also a great number of this class who had no confidence in Medicine; and then, again, when a Doctor was sent for, he frequently could not be found. We may therefore confidently assert that more than half of this class perished without Medical attendance. I think, perhaps, that I am within bounds when I state that not a thousand of the well-to-do class fell victims to the epidemic.

It appears to me a noteworthy fact that the first outbreak of yellow fever in Buenos Ayres should have been so severe and fatal, as compared with those of Lima and Rio Janeiro, considering the latitudes in which both are respectively placed. We learn from Dr. Ravenna (now of the former city, and formerly of the latter) that the epidemic began in a very mild manner in Rio Janeiro, and went on increasing in strength till the

third year, when it became most fatal. It was known by the name of "the polka," since, like the popular dance of the same title, it appeared to be so much the fashion that almost everyone affected by it took part in it.

Having given a brief account of the yellow fever in Buenos Ayres, and its importation into that city, I shall now endeavour to relate the forms in which that epidemic presented itself, according to the accounts given to me by Dr. Christiani and the Rev. Mr. Lett, who attended upon hundreds of sick on that appalling occasion. On looking over Dr. Daza's treatise "On the Epidemic in the Highlands of Peru," Dr. Archibald Smith's work "On the Rise and Progress of Yellow Fever in Lima," and my own observations during its prevalence in that country, I find that, according to the testimony of these gentlemen, the epidemic took the same forms, and was accompanied in general by the same series of symptoms, as those observed in the persons whom it attacked in Buenos Ayres.

The yellow fever presented itself in Buenos Ayres in three forms—1st, the benignant or simple hæmorrhagic form; 2nd, the bilious or icteric form; 3rd, the nervous or ataxic form.

Signs of the First Stage.—The invasion was sudden, and commenced with fever, lassitude, disinclination for food, headache (which was chiefly confined to the forehead, accompanied with a sense of stricture as from a binding of a cord), slight nausea, or vomiting of a green and yellow hue, pains in the thighs and loins, frequently very acute in the latter. This train of symptoms frequently appeared within the first twenty-four hours.

Symptoms of the Disease in—1. *The Benignant or Simple Hæmorrhagic Form.*—After the primary symptoms of invasion had passed, the patient presents the following signs of the disease:—Prostration of vital forces, greater or lesser, according to the intensity of the fever. There is a great change in the countenance—it is more or less flushed; sometimes florid and comparatively bright, sometimes livid and sullen. There is a great variation in the pulse—it is sometimes full and strong, and then, again, hard and small; it is always frequent, varying from 90 to 120 beats per minute. There is great restlessness in some cases; the headache is very violent, and occasionally attended with a sense of heaviness and mental drowsiness; the eyes are more or less disturbed; the lips are often dry, and sometimes parched and pale. The tongue becomes white and foul, but red at the point and borders; it sometimes becomes rough, dry, and parched, and covered with a yellowish tinge. There is considerable thirst, and the bowels are much confined. The heat of the body is dry and ardent; the respiration is frequent, and from time to time the inspirations are deep and prolonged; the urine is usually scanty and high coloured. A deep-seated pain is frequently felt in some part of the body, but more particularly in the loins.

The above symptoms go on increasing until the sixth, seventh, and eighth days. They are occasionally prolonged to the tenth or fifteenth, accompanied almost constantly, from the third to the fourth day, with mulberry-coloured spots, which present themselves on the skin; they are of different sizes, from that of a flea-bite to that of a pea. They first appear on the breast, then on the abdomen, from whence they generally spread all over the body. The patient is very restless during the earlier days of the fever—he is sleepless or slumbers lightly, and has occasionally mild delirium.

The fever generally comes to a crisis between the eighth and fifteenth days, and when favourably it declines by degrees, which is known by the moderate heat of the body, a slight perspiration, less frequency and greater softness in the pulse, a free and easy respiration, restlessness and headache disappearing, more expression in the eyes, the tongue assuming its natural appearance, thirst declining, the appetite returning, and the urine more abundant.

When the fever is to terminate fatally then all the symptoms become gradually worse: the pulse becomes progressively smaller, the breathing hurried, the heat of the skin from being moderate becomes ardent, the head is confused (and deafness often accompanies this symptom), the lips and tongue are dry—there are frequently open chinks on the latter, covered with an exudation of blood, or a dark stain; the voice fails, speech is broken and slow; the eyes are sunk, with a fixed look; the hands and feet are tremulous, and bathed in a cold sweat; the pulse ceases to be felt, and death closes the scene.

2. *The Bilious or Icteric Form.*—This typical form presents, according to Dr. Daza, two distinct modifications—viz., the hæmorrhagic-icteric, and the non-hæmorrhagic-icteric or congestive. He describes the latter, which he designates the "bilious":—"From the fourth to the sixth day, up to which time the symptoms are just the same as in the preceding (benignant variety), this bilious form begins to show itself by a greater prostration of strength, so that the patient is unable to move himself; the pulse is small and frequent; the heat of the body is dry and burning; breathing agitated; the voice weak, and the manner of utterance much altered; the skin of the face, neck, and breasts presents a colour which varies from an opaque yellow to the brightest tint of the broom blossoms. This yellow tinge is more conspicuous in the white of the eye, which, as the disease advances, grows more intensely yellow. The headache is ordinarily attended with a troublesome sense of heaviness; the tongue is covered with a white or yellow coat, and in continuation becomes dry, arid, chapped, and covered with a dark or blackish stain, the same as the lips; there is a bitter taste in the mouth, retching and vomiting of a green and yellow colour, and such is the gastric irritability that it is generally necessary to apply a sinapism to the epigastrium in order to prevent what is drank from being rejected by vomiting. This form is one of the most fatal, and has caused the greatest consternation in towns and villages, where it has been confounded with the yellow fever, on account of the rapidity with which it snatches away its victims, and also because in some cases the yellow fever is so strongly pronounced that it stains the clothes and bed-covers even after death."

Vomiting was frequent in those who were attacked with the fever in Buenos Ayres. The matter ejected was frequently of a dark brown or black colour, resembling turbid coffee; it was not accompanied with retching or straining. The urinary secretions were much affected; they were, in some cases, entirely suppressed, and when that took place the case was almost always fatal. There were many who died from hæmorrhage. Mr. Lett assured me that he had seen many cases of this form, and that the greater part of them were females; that the blood spurted out of the mouth with violence, and at times was ejected by mouthfuls; that the blood exuded from many parts of the surface of the body in great abundance, more particularly from below the arm-pits; that some who were apparently dying from hæmorrhage recovered, but of those whose bodies were covered with dark or livid spots, of the size of a sixpence, not one recovered; that in many cases in which the fever came to a favourable crisis the individuals suffered from abscesses in different parts of the body; that petechiæ, as well as suppression of urine, were present in half the cases, and hæmorrhage very frequently from the nose; and that very few recovered who had suppression of urine.

3. *Nervous or Ataxic Form.*—There were some cases of this variety of the epidemic; it was the most fatal, but, happily, much less frequent than the preceding. Mr. Lett assured me that he had seen several cases of it, but they were of only a few hours' duration. In fatal cases of the disease, according to Dr. Daza, the following symptoms present themselves:—"The eyes are turned or squint, and the patient's whole frame is seized with tremblings. The tongue is sometimes cold and pale; the headache is in most cases intolerable; appetite totally gone; there is a little thirst. The wasting of the body is very observable in this modification of the disease. Should he survive the fourth or fifth day, his convalescence will be extremely protracted."

There were many bodies in the forms we have enumerated that stained the ground with a yellow colour.

It will be seen in this brief account of the different stages and forms of yellow fever, and for which I am indebted to Medical men and other reliable persons, that the general features of the disease in Buenos Ayres were as follows:—

1. In the more severe cases livid or black spots appeared on the tongue; blood very commonly exuded from the gums and spurted out from the mouth, particularly in females.

2. In a great majority the skin took on the yellow colour of the flower of the broom, either during life or after death.

3. The urine was suppressed in many cases, and the bowels were very confined in all.

4. Many affected with petechiæ of a dark colour were carried off on undetermined days; many died from hæmorrhage of the stomach, uterus, intestines, and surface of the body.

5. Mulberry-coloured spots on the skin were observed in most cases.

It would have been of great interest if the Medical men of Buenos Ayres had drawn up pathological tables of post-mortem cases, as was so frequently done during the prevalence of the yellow fever in Lima. Their treatment of the fever was in accordance with that employed by Medical men in those countries where the disease prevails.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

ACUTE DIFFUSE PERIOSTITIS AND OSTEITIS OF HUMERUS, INDUCING DEATH OF A LARGE PART OF THE BONE—RECOVERY, WITH A VERY USEFUL ARM, AND WITH VERY SLIGHT DEFORMITY.

(Under the care of Mr. HULKE.)

A BOY, aged 11, was admitted into Percy Ward January 6, 1871, with a considerable brawny swelling of the arm and redness, great pain and tenderness, most marked towards the shoulder. Pulse 120; temperature 101°. This was attributed to a fall a week before, which, four days later, was followed by rigors, sickness, and loss of appetite, with the local symptoms detailed. He was of a scrofulous family. Acute periostitis being diagnosed, on the next and following days incisions down to the bone were made, with the object of limiting its extension by affording a free exit for the products. No pus escaped, but the general swelling and the fever diminished.

On January 19 deep fluctuation was thought to be felt over the neck of the humerus, and an incision was made there; it led to rough bone, but gave vent to no pus.

At the end of the month he was able to get up. The inner and upper part of the arm remained swollen and thickened.

On February 5 an abscess pointed, and was opened, over the bicipital groove. This was followed by increased swelling and redness of the front and outer side of the upper arm and shoulder. A probe passed into the abscess ran towards the head of the bone. He could lift the arm from his side with the other hand without pain; but owing to the great swelling it was uncertain whether this was not a movement of the scapula with the humerus. When the scapula was fixed, which could only be imperfectly accomplished, owing to the great tenderness, on rotating the arm a distinct crepitus was perceptible; but it could not be certainly established whether this was in the shoulder-joint, or whether it proceeded from separation of the diaphysis and epiphysis. Mr. Hulke took the latter view, and, being anxious to prevent an extension of the inflammation from the shaft to the head of the humerus and shoulder-joint, which the prolonged presence of the dead end of the shaft might occasion, on February 15 laid open the abscess, found the shaft separated (as he had suspected) from the head of the bone, and cut off about two inches of the upper end, which were dead, bathed in pus, and enveloped in a tube of thickened periosteum, the inner surface of which was already lined with new bony tissue. The joint was left intact. The posterior surface of the shaft nearly to the elbow was dead, but the necrosis evidently did not comprise the whole cylinder, and as it was perfectly tight, it was left to be exfoliated. Some time later an abscess pointed through the triceps a little above the olecranon. After this the swelling greatly lessened, and the abscess closed, the incision through which the necrosed end of the shaft had been removed remaining open.

In April this was enlarged, and a sequestrum about four inches long pulled out. The wound now closed, and in the following July he left the Hospital with a perfectly movable shoulder-joint, very slight deformity, and a strong useful arm.

TWO CASES OF AMPUTATION.

(Under the care of Mr. HULKE.)

Case 1.—A mechanic's wife, aged 27, was admitted into Bird Ward, November 18, 1870, with great swelling, tenderness, and severe pain in the right knee, aggravated by the slightest movement. The tibia was displaced backwards and rotated outwards, as is usual in old-standing disease of this joint. During the preceding ten years the knee had been repeatedly inflamed, though never so severely as now. The present acute symptoms had lasted eight weeks. Her father, mother, a brother, and a sister had died of phthisis. The joint was fixed in a M'Intyre's splint, and the limb swung, the knee painted with iodine, and the pain relieved with anodyne. This treatment was followed by improvement, but towards the end of December the condition of the joint grew worse, her rest was much broken, she lost flesh, and her strength declined. Mr. Hulke, therefore, amputated the limb above the femoral condyles on January 4, by Teale's method. The raw surfaces were washed with a watery solution of chloride of zinc, the flaps joined with silk sutures soaked in carbolised oil, and the stump covered with a square of lint dipped in the same. Her temperature rose on the fourth day to 101·2° in the armpit, and then fell. On the tenth day her appetite failed, she had retention of urine, she felt depressed, and manifestly flagged. On the sixteenth and following day she vomited several times, and now the urine was observed to be of a dark smoky colour. No blood-discs could be detected in it, and by boiling with nitric acid no albuminous precipitate was obtained. Its specific gravity was 1034. These symptoms were unaccompanied by any rise of temperature or acceleration of pulse. Suspecting them to be due to the absorption of a poisonous quantity of carbolic acid from the oiled lint with which the stump was covered, this was discontinued, and they immediately ceased. After this she made steady progress, and left the Hospital towards the end of February. When last seen, a short time ago, she had an excellent stump, and had grown stout.

Case 2.—An emaciated, goîtrous woman, aged 21, of a scrofulous family, was admitted into Regent Ward, February 14, 1870, with enlargement and contraction of the left knee, backward displacement and outward rotation of tibia, and great pain, increased by the slightest movement. She said that five years ago, after a fall, the knee became swollen and painful, and it had ever since continued more or less so, obliging her lately to use crutches. Six days after her admission an abscess was found in the ham and calf. This was opened with antiseptic precautions, and dressed in the same manner; but it extended, and required fresh incisions to drain it thoroughly. The discharge became very offensive and more abundant. The pain and other inflammatory signs in the joint increased. Her sleep was much broken by starting of the limb; her appetite, never good, failed; her temperature rose, and her pulse became quicker. Under these circumstances Mr. Hulke removed the leg by Teale's method, sawing through the femur just above the condyles. The flaps and the stump were treated in the same way as in the last case. Recovery was retarded by repeated diarrhœa, and at the end of March the femur, over which the large square anterior flap had at first hung very loosely, protruded through its centre by inducing ulceration. No part of the edges of the flap had been lost by sloughing, but, owing to the very feeble state of the girl, their union was very slow. A few days later the soft tissues were pushed back a couple of inches, and the projecting bone was sawn off. The cancellous tissue of the piece cut off was inflamed, soft, and full of pus; the exterior of the cortex was overlaid by porous masses of new bone. After this the condition of the stump and her general state improved; but at the end of April an abscess formed in the outer side of the thigh, which remained long open, and threw her back again. It finally closed in June, on the 15th of which month she went home convalescent, with a soundly healed stump on which she could already bear some pressure.

WESTMINSTER GENERAL DISPENSARY.

TREATMENT OF SYPHILIS BY MERCURIAL FUMIGATION, WITH A DESCRIPTION OF A NEW AND CHEAP VAPORISER.

(Under the care of Mr. CHURCHILL.)

CASES of accidental inoculation of syphilis upon the hand of the Medical attendant, though fortunately rare, deserve to be recorded as beacons to warn the unsuspecting of the danger they incur by neglecting to use proper precautions to protect themselves from the possible absorption of syphilitic material through a crack or wound of the hand.

T. L., a Medical student, was attending occasionally at the Westminster General Dispensary for the purpose of receiving instruction in the dispensing of medicines and the treatment of disease. He was particularly anxious to obtain some information with regard to the pathology and treatment of syphilitic disease, and with this view he had been allowed to watch the progress of treatment in selected cases, with the endeavour, if possible, to discover the changes in character of the primary sore. He had been in the habit of manipulating the sores, hoping to satisfy himself as to the distinctive differences between the Hunterian and the soft or non-infecting chancre, and to ascertain how far it was possible for a soft chancre to become indurated, so as to resemble, if not to constitute, a true infecting chancre. It has been asserted by some authorities that a soft sore under irritation may become indurated, and, as such, a focus of constitutional infection. Those who discredit the dual character of the syphilitic poison also assert that a hard

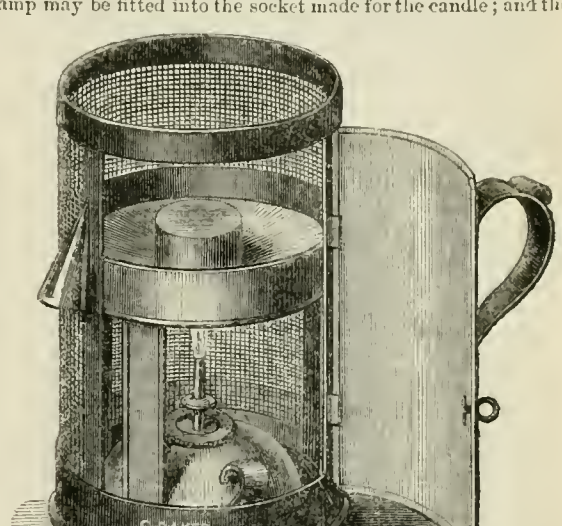
sore may produce a soft chancre on an uncontaminated subject, depending to a great extent upon the temperament or constitution of the individual infected. The assertion that hard sores are much rarer in females than males would seem, if true, to justify to some extent the doctrine of the unity of the syphilitic virus. All observers admit that sores which are to all appearance soft are occasionally followed by constitutional symptoms, and that sores of the true Hunterian type are not always followed by secondaries. Also, in syphilised subjects, inoculations with matter taken from a hard sore will occasionally produce a sore resembling a soft chancre, but this the dualists affirm is not identical with the soft chancre. Supporters of the other doctrine admit that the poison of syphilis has developed into two well-marked varieties, which, as a rule, "breed true." "The two diseases are, for all practical purposes, entirely dissimilar, differing in symptoms, in prognosis, and treatment" (*Vide* Mr. Bradley's "Notes on Syphilis and on the Unity of the Syphilitic Virus," p. 38.) The only point that remains to be determined is, how far these two diseases, "entirely dissimilar," have divaricated, according to the evolutionary hypothesis, from a single original stock. That gonorrhœal urethritis is, and always has been, a distinct disease, seems to me as certain as the admitted distinctions between acute and croupous laryngitis, although, according to some evolutionists, a "traumatic urethritis" was the parent of all forms of venereal disease.

The account T. L. gave of himself, referred to in the last issue of the *Medical Times and Gazette*, was as follows:—In addition to the ordinary routine work of a Medical student in the dissecting-room, he had undertaken to assist the pathologist in post-mortem examinations; and while others carefully sucked or cauterised wounds inflicted during dissection, it was his boast that no harm had ever come from previous wounds. He supposed that his system was innocuous to the intrusion of septic particles or other products of decomposition. He had witnessed in others the poisonous effects of the absorption of deleterious matter; and though aware of the risk he incurred by dissecting with open wounds, he was, like many others, indifferent, because fortifying himself by a false hope. Surgeons of far greater experience, and maturer years, in their zeal to instruct, are perhaps unmindful of the potency of the syphilitic poison. Too great care cannot be taken to guard against the possible entrance of syphilitic matter by such unexpected channels. That the disease was not contracted by venereal indulgence was evident by the appearance of the primary sore on the palmar surface of the thumb, and the implication of the axillary glands on the left side, as also by the absence of any scar or mark on the penis and of inguinal glandular swelling; last, but perhaps not least, was the evidence of the patient himself, who most positively denied that he had exposed himself in any way to the possibility of infection by impure or muliebral contact.

Unaware of the cause of the small blister on the palmar surface of the thumb, T. L., in his attempt to heal the sore beneath by bland ointments and lotions, was really fostering the development of constitutional symptoms, little suspecting that he would have the opportunity of studying(!) in his own person a disease the cause of which he was hoping to investigate more fully in others. He went to the sea-side for change of air, hoping that the follicular ulceration of tonsils and palate and the sore on thumb would heal as his health improved. It was not until his return to town that his suspicion was aroused as to the specific nature of the disease. It should be mentioned that he consulted about this time some Surgeons of eminence; but whatever their suspicions may have been, no specific treatment was adopted. He was afterwards advised to take fifteen grains of iodide of potassium and four grains of Plummer's pill daily, and to dress the sore with black wash. About this time ulcerating tubercles appeared on the legs and back; an eruption also appeared on the scalp, and he lost a good deal of hair. The sloughs on the tonsils and palate were some time separating, and he suffered for about twelve months from sorethroat. T. L. consulted Mr. Henry Lee, who advised the mercurial fumigation treatment, which was commenced at once—*i.e.*, as soon as the eruption became fully developed. He continued this treatment every night for three months, when it was omitted in consequence of all sores having healed, as also the sorethroat. It was now the middle of winter, and he was unable to carry out effectively the mercurial treatment, on account of early lectures at the Hospital requiring him to expose himself to the cold morning air. The sorethroat returned, and he resumed the fumigation for another two months, when he was pronounced to be cured of the disease.

For the successful administration of mercurial fumigation so much self-denial on the part of the patient is required, that he too frequently stops the use of the bath before the disease has been entirely eliminated from the system. Such a partial employment of the mercurial bath has given rise to a scepticism with reference to its efficacy as a powerful anti-syphilitic remedy. T. L., fully aware of the danger of partially curing his disease, carried out the treatment most systematically, and is now rewarded by the comforting assurance of a renovated constitution.

The plan adopted of administering the baths under the bed-clothes has two important advantages not possessed by the ordinary method of administration under a cane chair—viz., 1st, that the patient's body is placed in a mercurial atmosphere so long as he remains in bed; 2nd, that he is enabled to apply the fumigating process to the throat, larynx, nasal passages, and bronchial mucous membrane, by respiring the vaporised air for a limited time under the bed-clothes; 3rd, that the luxury combined with the greatly increased warmth obtained by this method of administration commends itself to the approval and satisfaction of the patient, not enjoyed by other methods. As a corollary, patients have been more ready to carry out to successful termination this method of treatment by mercurial fumigation. A cradle is necessary to support the bed-clothes, and raise them from the bath. For poor patients, unable to purchase a vapour bath, I have had constructed a metal tray for holding the water, with a raised portion in the centre, surrounded by water, on which the calomel is deposited. The tray fits into a watchman's "candle-lamp." A spirit-lamp may be fitted into the socket made for the candle; and the



apparatus is complete. Hitherto, the expense of the apparatus has seriously interfered with the introduction of this powerful anti-syphilitic remedy among the poorer classes of society, who are, perhaps, more subject to the ravages of this destructive disease. The difficulty having been overcome, it is to be hoped that the method of treatment will be more universally known and adopted. I have used this method of fumigation, and found it most successful in cases where the wife has contracted syphilis from her husband, and *vice versâ*. The process of cure may with advantage be carried out simultaneously. This vaporiser will no doubt prove of great service in the sick-room, and in pulmonary complaints, for fumigating purposes, and for volatilising drugs previous to inhalation. The apparatus complete, as shown in the figure, may be obtained from Messrs. Baker, surgical instrument makers, High Holborn.

ROYAL INFIRMARY, EDINBURGH.

ASCITES COMPLICATING OVARIAN DISEASE.

(Under the care of Dr. MATTHEWS DUNCAN.)

M. R., AGED 51, a widow, who has had seven children, was admitted to Ward XVI., on November 13, complaining of pain and swelling in the belly, and indigestion. She first remarked the swelling of her belly eight or nine weeks ago;

it has increased rapidly since then, and gives rise to pain and inconvenience. Her monthly periods were regular up to the time of the commencement of her present illness, but they have been absent since then.

Present Condition.—The belly measures forty-five inches, the tape being passed round it over the most prominent part, which is the umbilicus. On palpation and percussion in the usual manner the swelling is found to be caused by fluid, free in the peritoneal sac. No cardiac or other local disease could be discovered to account for the presence of the ascitic fluid.

November 17.—Patient was tapped to-day. Twenty-two pints of fluid of a greenish colour were drawn off. It is found to have a specific gravity of 1020; reaction alkaline; when heated, or on adding nitric acid, it almost entirely coagulates. On keeping this fluid, no coagulum is formed, but a deposit is observed, which on microscopic examination is seen to contain round granular cells, varying in size, and generally possessing a nucleus and granular contents. Some of these cells are four times as large as an ordinary red blood-corpuscle. After the tapping, a hard, irregular, nodulated mass is felt, occupying the right iliac fossa, near the site of the right ovary; it is freely movable.

Remarks.—This patient was sent into the Hospital, said to be suffering from ovarian dropsy. The great bulk of the fluid, however, was at once made out to lie free in the abdominal cavity, to be what is ordinarily called ascitic. Cases of ovarian dropsy are generally accompanied by some amount of ascites, but in the great majority of them it is trifling, in small quantity. On manipulating over an ovarian cyst, the woman lying on her back, you can generally make out the rounded margin of the cyst-wall, where the dulness of it should end; but the dulness of the free fluid in the abdominal cavity may run into it, and you may thus be unable to distinguish between the two. Place the woman on her side, however, and then the dulness is observed to end at the rounded margin of the tumour, the ascitic fluid having gravitated towards the other side, and what was before dull on percussion is now found to be resonant. Instead of the ovarian dropsy, it was the ascites which predominated in this case. On tapping, it was found to measure twenty-two pints and a half. After tapping was performed, an ovarian tumour was detected, which before was not to be recognised. The large amount of ascites was probably owing to the disease being, in all likelihood, malignant. Malignant disease seems to cause a great deal more irritation of the peritoneum than simple ovarian tumour. In ordinary cystic disease of the ovary we occasionally observe tubercular peritonitis to be present along with it more frequently than would happen should there be no irritation of the peritoneum, such as is caused by an ovarian tumour. The opinion that the case before us is probably malignant in its character, is founded on the following considerations:—1st. The cachectic condition of the patient—the sallow, anæmic appearance of her face. In advanced ovarian dropsy which is not malignant you have considerable emaciation present, especially about the face, neck, and breasts; but otherwise the general appearance may be healthy. 2nd. The feeling and history of the tumour itself. It has a very irregular, hard, nodulated feeling; no big cyst present. There is no definite shape, but merely a series of irregular lumps. It is growing slowly. The age of the patient (51) gives some countenance to the diagnosis.

Election of M. Marey.—This distinguished physiologist, whose sphygmograph has imparted such an impulse to physiological research and practical Medicine, has just been elected, by a large majority, into the Section for Anatomy and Physiology of the Académie de Médecine.

The French Liberation of Territory Subscription.—This patriotic subscription, which must excite sympathy in the breast of every one capable of love for his country, is being pursued with great energy, and must, at all events, realise a considerable sum of money. The Medical journals had first thought of opening their columns to receive the names of those *confrères* who might feel disposed to contribute to a separate subscription. At a meeting of Medical editors, however, it was thought better to abandon the projected Medical Press Committee, in order not to multiply too much the centres of reception. All *confrères* are urged to use the great influence they possess in increasing the lists to be opened at the different municipalities. The ladies, however, with whom the idea of voluntary subscriptions originated, do not feel disposed to give up their separate action; and a committee is being formed at Paris, having Madame Wurtz as president, and Mesdames Nélaton and Barth as vice-presidents.

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Medical Times and Gazette.

SATURDAY, FEBRUARY 17, 1872.

THE CONTAGIOUS DISEASES ACTS.

It was shown in an article in our last number that opinions as to the Contagious Diseases Acts may be ranged under three heads. First of all there are the *implacables*, represented by Mr. Jacob Bright, whose doctrine is that the repression of prostitution is a restraint of civil liberty, and that the fear of syphilis is so potent an aid to continence that we cannot afford to stamp out a disease which has such happy moral results. We will not waste our readers' time by undertaking the superfluous task of arguing against these propositions.

The second class are those whose prime idea is the stamping out of disease *simpliciter;* and the third consists of those who wish to repress prostitution, and who objected to the Acts at first in fear lest the machinery for eradicating physical disease might be so worked as to be converted into a protection and public patronage of vice.

Now, we think we shall receive the assent of every sane and respectable householder and ratepayer in the United Kingdom when we say that it is high time that controversy should cease. No case has been fairly made out of oppression, or false accusation of respectable women, since the Acts have been put into partial operation. They who began by advocating the removal of physical evils, now point triumphantly to the good moral results of the Acts; and they who are eager for the repression of prostitution because of its immorality cannot (if they are of sound mind) object to measures for curing disease as well. There is, therefore, the happiest occasion for a compromise; both parties may unite in strengthening the hands of the Home Secretary, and in obtaining the sanction of the Legislature to an Act in which the maximum of moral and of physical repression shall be combined.

Before specifying the general nature of the Bill which Mr. Bruce on the evening of the 13th obtained leave to bring into the House of Commons, we cannot help reinforcing our argument for a compromise—for the union of all rational men in getting the best Bill which public opinion and the Houses of Parliament can be got to sanction—by a very short statement of the manner in which things got into their present mess.

We lay the chief blame of the *imbroglio* on those members of our own Profession who, in their laudable zeal for wiping out syphilis, began by introducing the thick end of the wedge first, and shaped their measures in such a way as to awaken the prejudices and alarm the moral sense of the community. It is not too much to say that a large part of the middle classes

have a vague, but overwhelming notion, that a frightful state of immorality prevails in Paris. They have heard of prostitutes furnished with certificates of health after examination; thus they have conceived an idea of a "French system" of open immorality, and their bristles erect themselves of their own accord at the very notion of such a French system, or any part of it, being introduced into "moral" England—that "happy" land which, as they suppose, a "silver streak" divides from the abominations of French sensuality, just as our forefathers used to boast of it as a barrier against wooden shoes, slavery, and a diet of frogs.

We lay the blame, then, of the present inveterate opposition to the Acts on the way in which the matter was first handled; on the well-meaning attempt to make it an isolated question of disease—a mere Medical question. The results would have been far different if the moral side, which the advocates of the Acts are now fain to put forward, had been acted upon from the first. If the ancient common laws of the land had been put in force for the regulation of prostitutes as such, the physical treatment might have been added with very little trouble.

Let us call attention to a few facts gathered from recent returns and from Mr. Bruce's speech, which will illustrate our meaning.

We are told that in the year 1865 there were 1770 prostitutes in Plymouth, of whom 1249 were under 21 years of age—under the age at which the English law allows men to dispose of their persons and property as they choose. Now, pray, mark what follows! Of these 1249 wretched children, *two* were under 13 years of age, *twelve* under 14, 109 under 15, 89 under 16, 207 under 17, 227 under 18, and so forth—altogether 1249 under 21, and out of these 419 children under 17 years of age.

The advocates of the Contagious Diseases Acts point to these figures with justifiable pride, and assure us that the operation of these Acts had in six years (1871) reduced the total number of prostitutes in Plymouth from 1770 to 503, and that of these only one was under 17 years of age. We are thankful for the result, come by how it may be.

But what a sarcasm! Here, in "moral" England, with its "streak of silver sea" fencing it off from French abominations—with bishops, parsons, Dissenting ministers, magistrates, sanitarians, philanthropists, grievance-mongers, reformers, missionaries, district visitors, and every kind of functionary, official and voluntary, to look after the morals of the people—here, in Plymouth, one of the largest towns in England, 419 children are allowed to prostitute themselves. And this hideous blot is at last wiped out. How? By love of God? No. By love of your neighbour? No. By preachers and the fear of hell? No. But by a committee of Surgeons, who preach fear of the pox!

We say now, what the *Medical Times and Gazette* has said before over and over again, that nine-tenths of the good achieved might have been gained and *kept* if the moral instincts of the community had been tenderly handled; if there had been no ground for talking of the introduction of a "French" system; and if the ancient existing laws against vagrants (of which a summary, prepared *ad hanc rem*, appeared in our columns three years ago) had been put in force. This is now admitted; and here we may call attention to one grotesque feature in the administration of law in England.

Anyone who has undertaken the task of endeavouring to enforce sanitary law must be aware of the invincible obstacles interposed by some magistrates; and how, if the Act appealed to is susceptible of an interpretation which shall render it nugatory, this interpretation is stolidly brought forward as a bar to the efficient working of the law. This has been the case with the Vagrant Acts. These were quite sufficient, as we have said, to inflict "heavy blows and great discouragement" on prostitution and syphilis, had the police acted upon them and the magistrates interpreted them in their proper spirit, and had the Home Secretary or Lord Chancellor (or other personage on whom the responsibility rests) taken care to keep police and magistrates to their duty. But no!—this Act was "interpreted" in such a way as to be useless, till a change came over the spirits of the Liverpool magistrates.

"The Vagrant Act," says Mr. Bruce, in his speech on Tuesday evening, "*had been interpreted in different ways.* In Liverpool *lately* it had been applied with great vigour for the *first* time, and with results of a very striking kind. In a report recently issued by a committee of magistrates in Liverpool it was stated that the number of women convicted under the Vagrant Act previous to 1870 varied from sixty-five to 500 annually. In 1871, however, the magistrates, acting under the direction of the stipendiary magistrate, Mr. Raffles, determined that the act of importuning in itself justified the apprehension and punishment of the offender. The result had been that in 1871 the number of women so charged under the Vagrant Act was 3388, and the change in the appearance of the streets of Liverpool had been very remarkable. The present Bill proposed to enact that every common woman who in any public street importuned persons should be liable to be dealt with under the Vagrant Act, and that for this purpose the Vagrant Act should extend to Scotland and Ireland. For the first offence under that Act, the offender, as a disorderly person, was liable to three months' imprisonment; for the second offence, as a rogue and a vagabond, to six months' imprisonment; and for the third, as an incorrigible rogue, was liable to be tried at Quarter-Sessions and sentenced to twelve months' imprisonment. In the opinion of the Liverpool magistrates, the power of committal for still longer periods would be useful."

Of course it would. But what is the use of Acts if magistrates exert their perverse ingenuity in giving them a colourless interpretation?

We must now condense into few words the gist of Mr. Bruce's Bill. He said that the Government had reluctantly come to the conclusion that it was impossible to maintain in a limited district the main principle of the Act—viz., compulsory periodical examination—while it could not be extended to the whole country. And this he held to be impossible in the present state of public opinion, of which the Acts went far in advance. Under these circumstances the Bill proposed to substitute for the present Acts certain general stringent provisions, which he explained, for clearing the streets and preserving decency, for detaining diseased persons in custody for other offences, for the more effectual protection of young girls and women, and for repressing disorderly houses and the harbouring of diseased women.

We are exceedingly sorry at the sacrifice of the periodical examination. This examination is attacking prostitutes from the physical side, and is quite justifiable, if made, as it should be an appendix to moral repression. Women who publicly offend against order and morality cannot claim "civil rights."

In conclusion, we must express our hope that the question will be settled for the present; that all parties will agree in accepting the best Bill which can practicably be had; and we believe, for our own part, that if Mr. Bruce's Bill be carried in its present shape, public opinion will demand the addition of the compulsory examination clauses before two years are past.

ELECTION OF EXAMINER AT THE COLLEGE OF SURGEONS.

On the last day of this month the Council of the College of Surgeons will elect an examiner in the room of Mr. Cock, retired. Two members of the Council and two Fellows not on the Council have been nominated. For a long time it was the custom to elect the senior member of the Council who was willing to serve as an examiner. Then it was felt that there might be Fellows, not members of the Council, who would make better examiners than anyone on the Council. At any rate, it seemed desirable to increase the number of Fellows from whom the candidates could be selected; and a sort of understanding has latterly been arrived at that half the members of the Court of Examiners should be members of Council, and

half not so. It remains to be seen whether this rule will work well. There are evident disadvantages in excluding from the Court of Examiners senior members of Council who have attained a position in the Profession which would make their names an additional value to the diploma, and who may have better qualifications for the office of an examiner than anyone not on the Council. And it seems absurd that the fact of being elected to the Council by the suffrages of the Fellows should be a disqualification for the examinership. It would seem to be far better if the simple endeavour were made to select the best available man for the office without the least reference to his being a member of Council or not.

In the present election, if the rule of having half the members of the Court of Examiners elected from Fellows who are not on the Council be adhered to, one such Fellow must be elected; and two have been nominated—Mr. Campbell De Morgan and Mr. Callender. Two members of Council have also been nominated—Mr. Spencer Smith and Mr. Birkett. There are three senior members of Council to these gentlemen—namely, Sir James Paget, Mr. Prescott Hewett, and Mr. Charles Hawkins;—but these three gentlemen have expressed their inability or unwillingness to act as examiners. Accordingly, the two members next in order of seniority who are willing to serve have been nominated.

There can be no doubt that all the four gentlemen we have named would make good examiners. But the Council have to consider some delicate questions in making a choice of one from among four good men. It is not desirable that teachers should examine their own pupils; therefore, for this and other evident reasons, it is not desirable to have more than one examiner from one school. As Mr. Lane, of St. Mary's, is already an examiner, this may be some objection to the election of Mr. Spencer Smith; but as Mr. Hilton, of Guy's, is also one of the Court, the same objection holds against Mr. Birkett; and as Mr. Savory is also an examiner, Mr. Callender is in the same position as Messrs. Smith and Birkett. Mr. De Morgan is free from any objection on this score, and his position as a teacher and a Surgeon to the Middlesex Hospital will give great weight to his candidature. Nor is he a member of Council; so that his election would maintain the principle of the equal division of examiners between members of Council and other Fellows. On the other hand, the fact that a man passes successfully through the ordeal of an election is in general a proof of competency and knowledge of business.

Whatever the choice may be, we have no doubt it will be a good one—indeed, it must be so if any one of the four gentlemen nominated be elected. And the task of selecting the best of four good men must be a difficult task; for, supposing the Professional qualifications to be equal, questions of tact, and temper, and knowledge of the world, and knowledge of students, and common sense, will all arise, and ought to have their due weight with the electors. These things the Council will necessarily consider, and we may safely leave them to arrive at a just decision.

VISUAL QUALIFICATIONS OF CANDIDATES FOR THE PUBLIC SERVICES.

It is very desirable that some fixed rule should be laid down as to the degree of short sight which disqualifies a Medical man for admission to any of the public services. It is no doubt essential that care should be taken not to admit as a recruit for the ranks any man who cannot see the bull's-eye on a target up to 500 or even 1000 yards; it is also well that combatant officers should possess vision sufficiently acute to enable them, with the naked eye, to distinguish objects such as cavalry from artillery, at moderate fixed distances; and we believe it to be laid down that officers are not to be admitted as students in the Staff College who do not possess good sight; but as an ordinarily near-sighted man can, with properly adjusted field-glasses, see just as well as a man who enjoys long sight, and as field-glasses are part of the regular equipment of every staff officer, we hardly think that short-sightedness *per se* should be held to be an absolute disqualification for even that branch of military service.

We consider it still less essential that a Medical officer should possess a range of vision such as to enable him to count Snellen's test-dots at a distance reducing them to the size of the bull's-eye on a rifle target at 500 yards. In the schedule sent from the Army and Indian Medical Departments to candidates for those Services, this principle is recognised, and a moderate degree of myopia is not objected to; but the candidate must be able to dissect or perform a Surgical operation without glasses. This is reasonable enough; but a recent instance has been communicated to us in which several candidates for the Indian Medical Service were rejected because their vision was below the standard laid down as essential for recruits for the ranks. One of the gentlemen so rejected, we are informed, was afterwards accepted for the Army Medical Service on appearing before a special Board at Whitehall-yard, where the requirements as to sight appear to be more moderate than at the India Office; and subsequently, to make the matter still more surprising, on the application of a little force *ab externo*—at the instance, we believe, of a gentleman of Indian descent, of very high Professional attainments—all the candidates previously rejected on account of defective vision were, by the self-same Board, on being reassembled at the India Office, admitted as fit!

This very obvious self-contradiction might, of course, have been avoided by a more liberal construction of existing rules; and we hope that, a precedent having now been authoritatively established at the India Board, there may be no more rejections of ordinarily myopic candidates for admission to the Indian Medical Service.

THE WEEK.

TOPICS OF THE DAY.

The meeting of the General Medical Council is, we believe, definitely fixed for the 29th of the present month. We hear that there is very little chance of any scheme for a Conjoint Examining Board for Ireland being submitted to the Council with the unanimous consent of the Irish Examining Bodies. In Scotland, the scheme approved by the Edinburgh Royal College of Surgeons and the Scottish Corporations generally differs entirely from that offered by the University of Aberdeen. In England, the scheme which has been agreed to by the two Royal Colleges and by the Universities is essentially imperfect, inasmuch as it has been framed in such a manner that the Corporation, which under Act of Parliament grants by far the largest number of Medical licences of any "Medical authority" in the kingdom, is unable to take part in it. Out of these apparently irreconcilable elements, if the General Medical Council can construct the lasting fabric of a uniform test and admission to the Medical Profession, it will truly deserve a meed of praise such as it has not been its lot hitherto to receive. For ourselves we are not sanguine. We are fully convinced that it would be better to go on with our present somewhat time-worn, but tolerably effective machinery, than to erect a different standard of examination in each of the three kingdoms, and favour the introduction to the Medical Register of a number of Medical men practising with one qualification, which will be the undoubted effect of the sanction of the General Medical Council being obtained for the imperfect scheme of the two Royal Colleges.

The Report of the Syndicate of the University of Cambridge, which, it will be recollected, was in favour of the scheme of the Royal Colleges of Physicians and Surgeons for a Conjoint Examining Board, has been received favourably at a meeting of

the Senate of the University; but at the time of our writing it had not been finally adopted.

The disturbances which took place at the installation of Sir William Stirling Maxwell as Rector of the University of Edinburgh have led to the rustication of one student and the admonition and continuance in the University on probation of several others. We hope that the University authorities are satisfied with the constant hot water in which they are kept by their infringement of the laws of decency by the admission of women to the Medical school of their University.

The Solicitor-General for Scotland has pronounced against the legality of the election of Mr. Ruskin as Rector of the University of St. Andrews, on the ground that it contravenes a clause in the Scottish University Act, which prevents any Principal or Professor of a University being eligible for the office of Rector. Mr. Ruskin is Professor of Fine Art at Oxford. The office, therefore, falls to Lord Lytton, Mr. Ruskin's Conservative opponent, if he be inclined to accept it.

Professor Huxley has resigned his seat on the School Board. We are glad to announce that Professor Huxley's health has greatly improved since he left England, and that his friends fully expect that his illness, which was the result of overwork, will have been fully recovered from before his return from the East.

A deputation from the Poor-law Medical Officers' Association, and from the British Medical Association had an interview with Mr. Stansfeld on Tuesday. The deputation was introduced by Mr. Corrance. The object of the deputation was to obtain the insertion of clauses in the forthcoming Sanitary Bill, which would place the Medical relief of the poor on a more satisfactory footing, reorganise the Poor-law Medical Service, extend the Dispensary system, and provide for the payment of drugs out of the public money. Mr. Stansfeld's reply was deemed satisfactory by the deputation.

The disappearance of the Russian agent of the Messrs. Blews, and the statement that the mystery is explicable by supposing that the unfortunate man is suffering from a second attack of a form of insanity which compels people to get away on some pretext from their connexions and friends, and to wander about without any ostensible purpose, are of some Medical interest. Wander-madness, like lycanthropia, has no place in modern mental pathology as a separate diseased state, but the impulse to get away from the restraints of society, and from their ordinary surroundings, is a common one to mad people. There are two classes of cases of this kind—one of persons of unsound mind, who lose themselves, or do not recollect or realise their connexion with familiar places, like the solicitor who passed his own house twice when wandering about in the night, and knew it, but to whom it never occurred that he should go in. Others leave their homes intentionally, and even use stratagem to throw their friends off the scent. To this class, no doubt, the case of Mr. Blews' agent belongs.

Professor Rolleston, of Oxford, has been elected a Fellow of Merton College. The Linacre Professorship of Physiology, held by Professor Rolleston, was endowed out of the revenues of Merton in 1854.

Mr. Bazalgette, the engineer to the Metropolitan Board, has replied to the charge brought by the City Commissioners of Sewers, that the main drainage scheme in the City, at least, is grievously incomplete, and that in all 562 sewers in the City have direct or indirect outlets into the Thames. The substance of Mr. Bazalgette's reply is, that when the works are completed all cause of complaint will be removed, and that many of the sewers that now remain are small and insignificant.

UNIVERSITY OF LONDON.

The Senate of the University has resolved to take the opinion of Sir Roundell Palmer and Mr. Cozens Hardy upon the claim made by the Treasury, that the receipts and payments on account of the Brown Trust Fund be included in the accounts rendered to the Audit Department. The Senate has also declined the offer made by Dr. Crisp of his Museum of Comparative Pathology for purchase on behalf of the University.

ROYAL COLLEGE OF SURGEONS.

The following is an abstract of the unconfirmed minutes of the meeting of the Council on the 8th inst.:—It was resolved to present addresses of congratulation to her Majesty and to H.R.H. the Princess of Wales on the recovery to health of H.R.H. the Prince of Wales. The report of the Court of Examiners since November 17 was read, and the Council adopted the recommendations of the Court, that lectures on anatomy in the University of Cambridge be in future recognised to the same extent as in other Medical schools; and that two courses of lectures on general anatomy and physiology, each of four months' duration, be recognised as equivalent to one course of the required attendance on such lectures, on the understanding that the second course will be an extension, and not a repetition of the first. Mr. Clark was elected an Examiner in Dental Surgery; and Messrs. H. Spencer Smith, J. Birkett, G. C. De Morgan, and G. W. Callender were nominated for election to the Court of Examiners, and Thursday, the 29th inst., was fixed for the election. The Council determined to appoint at their next ordinary meeting a committee of five members, in addition to the President and Vice-Presidents, to consider and report on the conditions upon which members of twenty years' standing should be elected to the Fellowship under Section 5 of the Charter of 1852. Mr. Simon, in pursuance of his notice of the 11th ult., moved—"That, on the occurrence of a vacancy in the Court of Examiners of this College, due notice be given of such vacancy by advertisement in such journals and at such times as the President shall decide, and that Fellows desirous of being considered candidates be invited to send in their names to the President"; and the motion having been seconded by Mr. Erichsen, Messrs. Simon and Hawkins demanded that the names of those voting for and against the motion be entered on the minutes—viz., majority for the motion, twelve: Sir William Fergusson, and Messrs. Hilton, Clarke, Hawkins, Smith, Simon, Holden, Erichsen, Wilson, Lee, Wells, and Critchett; minority against the motion, three: Messrs. South Curling, and Birkett. Mr. Erichsen gave notice of the following motion at the next ordinary meeting of the Council—viz., "That a return be prepared by the Court of Examiners, and presented to the Council at its ordinary meeting in May next, of the number of candidates who have been rejected at the Primary and Pass Examinations for the Membership during the three Collegiate years from July, 1868, to July, 1871, stating the numbers who have been rejected and who have passed from each School, and that a similar return be presented to the Council each year at its quarterly meeting in July."

At a meeting of the Board of Trustees of the Hunterian Collection of the College, on Saturday last, the 10th inst., Mr. Cæsar H. Hawkins, F.R.S., Serjeant-Surgeon to her Majesty, and late President of the College, and Sir John Lubbock, Bart., F.R.S., M.P., were unanimously elected trustees of the Collection confided to the care of the College by Government, in the vacancies occasioned by the decease respectively of Mr. George Grote, F.R.S., and Sir Roderick Impey Murchison, Bart., F.R.S.

The skeleton of the Porbeagle shark taken on the coast of Sussex in November last is now completed, and the specimen exhibited in the Hunterian Museum. The great skill and practice of the articulator, Mr. James Flower, have succeeded in overcoming most of the difficulties usually found to attend the preparation of the skeletons of cartilaginous fish; and careful measurements and drawings of the animal having been taken before it was dissected, every part is now preserved in its natural position. "Of course," says Professor Flower, the dis-

tinguished Conservator, "it has been impossible to prevent a certain amount of shrinking of the cartilages;" but this has been guarded against as much as possible by various ingenious expedients adapted to the different construction of the parts that had to be dealt with. The soft cartilaginous skull, where most difficulty was expected, has been preserved in its natural form by drying in a matrix of plaster of Paris made exactly to fit all its cavities and depressions, and the spinal column has been kept very nearly of its normal length by inserting thin slips of wood between each of the bodies of the vertebræ. Besides the skeleton, several excellent and instructive preparations have been made of the soft parts of the animal.

In concluding his course of lectures on Dermatology, on Wednesday last, the 14th inst., Professor Wilson reminded his audience that the day was the anniversary of the birth of John Hunter, on whom, in his peroration, he pronounced the following eloquent eulogium:—"Hunter," he said, "was a man to whose comprehensive mind every work of the Creator was interesting and important, in whose sight nothing was too small for observation, and nothing created in vain, whether the humblest plant or animal of the highest order of organisation. In the field of pathology in all its departments his zeal and faith were equally energetic and pure, whether he was investigating what may be termed the physiology of pathology, as in his grand labours on the blood, on inflammation, and on syphilis, or whether he was illustrating morbid changes in the integuments. He has left behind him, in the splendid museum, which will for ever be a chaplet to his fame, many valuable specimens of dermatological interest; and if his spirit be with us and round about us this day, as I doubt not it is, I am fain to hope that he will not look disapprovingly on our present occupation. I believe it to be impossible that he could do so. No whole would seem perfection to him without the perfection of its parts, for the soul of Hunter was essentially all-absorbing and universal."

THE OUT-PATIENT GRIEVANCE.

As in all other places of the kingdom wherein there is a Hospital or Dispensary, the evils attendant on the indiscriminate relief given to out-patients is felt at Bath. The evils are patent enough; what is the remedy? It is proposed by the governors of the Bath United Hospital "that (except in cases of accident or urgency) no Hospital relief be administered without a subscriber's recommendation; but the recommendation entitling the bearer to Medical relief shall not state if it is to be administered to him as an in- or out-patient; for it is believed that while the subscriber is the best judge of the social suitability of the applicant for treatment, the Medical staff is most competent to determine if the patient can be treated as suitably out of the house as in it." It was thought that this resolution would throw to some extent the onus of selecting proper persons for Medical relief on the subscribers, and on the Medical staff the onus of placing the persons recommended on the in- or out-door patient list. It is evident, however, that this is a mistake, for the governors will certainly not take the trouble to inquire into the real position of the applicant for a letter. The subject is one of extreme difficulty, and, as yet, no adequate remedy has been proposed.

SOMETHING FOR THE NAVAL MEDICAL SERVICE.

"The smallest donation thankfully received," may apply to the Medical officers of the navy; but they have never had anything like a spontaneous relief or reward. The little they have obtained has been wrung, as it were, at the knife's point from the officials at the Admiralty. We now learn that the unmeaning rank of Acting Assistant-Surgeon in the Royal Navy has been abolished, and in future all officers on entering the service will have their regular commissions in the same way as do their brethren in the army. They will, in fact, receive the rank of gentlemen, if they are not treated as such.

LOCAL SANITARY ADMINISTRATION.

On Thursday, the 15th inst., a deputation of the Social Science and British Medical Associations waited on Mr. Stansfeld, at the Local Government Board, Whitehall, with reference to Mr. Stansfeld's proposed Sanitary Bill. The deputation comprised a large number of veteran sanitarians, and the aspect of Chadwick, Liddle, Aldis, Farr, and others, afforded practical proof that regard for the health of the community is not incompatible with the good health and energy of the individual sanitarian. Dr. Lyon Playfair and Mr. Hastings were the chief speakers, and their object was to impress on Mr. Stansfeld the necessity of county sanitary boards, intermediate between the purely local and the central or metropolitan sanitary authority. Mr. Stansfeld received the deputation very courteously, but was not able to promise that he would take the county as a sanitary unit at present, though he said that it was far from impossible that such a scheme might be matured in process of time. We hope that all parties will join in strengthening the hands of the Government, and assist in getting the best Bill which the Legislature can be got to pass. It is quite clear that the parish Surgeon must be the primary Medical Officer of Health. His board of guardians must require him when attending fever or diarrhœa to take cognisance of preventible causes. If there be a *registration of sickness*, the exploration of causes of disease *must* follow. As to the authority that shall superintend large combined works of drainage, water-supply, and the like, whether county or metropolitan, it involves no principle, but must be settled as public convenience may dictate. On the ground of distributing patronage fairly, we should like to see eminent provincial Physicians—Rumsey, Budd, Trench, Davies, Philipson, Middleton, Osborne, Wiblin—employed; and do not see the need of abstracting them altogether from private practice.

ELIMINATION OF ALCOHOL.

Dr. A. Dupré, of Westminster Hospital, has recently presented a very important paper to the Royal Society "On the Elimination of Alcohol." Obviously, one of three results may follow the ingestion of that liquid—either all the alcohol may be oxidised, and none eliminated unchanged; or a portion only may be oxidised, and the rest eliminated unaltered; or all the alcohol may be eliminated unchanged. If all the alcohol be eliminated unaltered, it follows that if a certain amount of alcohol be administered daily, the quantity eliminated would increase from day to day, till eventually a state of equilibrium would be attained, and the amount eliminated each day would equal the amount ingested. If, on the contrary, all the alcohol were either oxidised or eliminated within a period of twenty-four hours, no increase in the daily elimination will take place as a consequence of the alcohol diet. The author undertook two series of experiments, in which the quantity of alcohol eliminated by both kidneys and lungs was determined. His results are thus summed up: "The amount of alcohol eliminated per day does not increase with the continuance of the alcohol diet; therefore all the alcohol consumed daily must, of necessity, be disposed of daily; and as it certainly is not eliminated within that time, it must be destroyed in the system. The elimination of alcohol, following the ingestion of a dose or doses of alcohol, ceases in from nine to twenty-four hours after the last dose has been taken. The amount of alcohol eliminated, in both breath and urine, is a minute fraction only of the amount of alcohol taken."

Dr. Dupré confirms M. Lieben's observation that a substance exists in the urine of man, and in the urine of various animals, which is not alcohol, though it yields iodoform. The author found, that after six weeks of total abstinence, and even in the case of a teetotaler, that this substance, the precise nature of which has not been determined, is eliminated in the urine, and perhaps also in the breath. The quantity met with in the urine is very small, and it was found that after the

elimination due to the administration of alcohol had ceased, the amount of the substance eliminated in a given time at first remained below the quantity normally excreted, and only gradually rose again to the normal standard. The presence of this body in urine must throw great doubt on many of the previous determinations of alcohol in urine. It passes over with the first portions of the distillate, it yields acetic acid on oxidation, gives the green reaction with bichromate of potash and sulphuric acid, yields iodeform, and its aqueous solution has a lower specific gravity and a higher vapour tension than pure water.

CONVERSAZIONE AT THE LONDON INSTITUTION.

One of the *conversaziones* of the London Institution was held at Finsbury-circus on the evening of the 14th instant, and proved highly successful, both in the excellence of the subjects exhibited and the number of ladies and gentlemen who assembled to enjoy them. The examples of the Fine Arts shown attracted general attention, especially Mr. White's sketches of Mexican scenery and vegetation, the wonderful photographs by Mr. Good, and not less the sketches taken in India and on the route in the recent eclipse expedition. Specially interesting to us were the scientific objects. Messrs. Hopkin and Williams exhibited specimens of several of the rare metals and their salts; Messrs. Zimmerman showed a new form of voltaic battery; Messrs. How and Messrs. Beck had on the table a number of microscopes, mainly binocular; and Mr. Browning demonstrated the hydrogen spectrum with one of his instruments. The *conversazione* was rendered still more attractive by a lecture delivered in the course of the evening by Mr. Norman Lockyer, F.R.S., F.R.A.S., "On the Sun." The learned astronomer confined his remarks to the solar atmosphere, giving the most recent views on its composition, on the nature of its spots, and so on. The enormous value of the spectroscope as a scientific instrument was pointed out; and it was shown by the lecturer, in reference to his late valuable researches on the spectra of various densities of a given gas—say hydrogen—how a new means of research was put into the hands of the physicist and chemist in this foundation of a process of quantitative spectral analysis. The lecture was illustrated by magnified photographic views of the sun's atmosphere, some of which were taken during the recent eclipse, by the spectra of various substances, as well as by several other experiments of different kinds.

THE ILLEGAL PRACTICES OF A PHARMACEUTICAL CHEMIST.

With reference to the case of Andrews *v.* Davies, recently decided in the County Court at Shrewsbury, the plaintiff stated that he was a certificated pharmaceutical chemist. He possessed, according to his own admission, a foreign diploma of Doctor of Medicine, and had been convicted under the Medical Act for "wilfully and falsely using the title of Doctor of Medicine, implying that he was recognised by law as such." Now, whether this conviction would be affirmed or not if it were brought before the Court of Queen's Bench, one thing is certain, that according to the Pharmaceutical Chemists Act (15 and 16 Vic., cap. 56, sec. 11), "No person who is a member of the Medical Profession, or who is practising under the right of a degree of *any University*, or under a diploma or licence of a Medical or Surgical corporate body, shall be entitled to be registered under this Act; and if any registered pharmaceutical chemist shall obtain such diploma or licence, his name shall not be retained on the said register during the time that he is engaged in practice as aforesaid." And by the 12th section, "If any person, not being duly registered as a pharmaceutical chemist, shall assume or use that name in any part of Great Britain, or shall assume, use, or exhibit any name, title, or sign implying that he is so registered, or that he is a member of the said Society, he shall be liable to a penalty of £5." One object of the Medical and Pharmaceutical Acts is to draw a broad line of demarcation between the Medical Profession and the trade of a chemist and druggist; and no person is allowed to combine the two. He cannot be a member of the Medical Profession and of the Pharmaceutical Society; and even if a chemist and druggist obtains a recognised degree or diploma, he must cease to be a member of the Pharmaceutical Society. *A fortiori*, if a man has been "wilfully and falsely using a title implying that he is recognised by law as a Practitioner in Medicine," and has thereby fraudulently induced people to confide in him, he is doubly amenable to the law. Mr. Andrews' occupation, even as a chemist and druggist, will, it would seem, henceforth be gone; for under the 31 and 32 Vic., cap. 121, sec. 1, no person shall "sell or keep open shop for retailing, dispensing, or compounding poisons, or assume or use the title of 'chemist and druggist,' or chemist, or druggist, or pharmacist, or dispensing chemist or druggist, in any part of Great Britain, unless such person shall be a pharmaceutical chemist, or a chemist and druggist within the meaning of this Act, and be registered under this Act, and conform to such regulations as to the keeping and dispensing of such poisons as may from time to time be prescribed by the Pharmaceutical Society with the consent of the Privy Council." It is to be hoped that this may be a caution to all prescribing druggists who aspire to a position to which they are not by law entitled, instead of remaining content with an avocation in itself at once respectable and lucrative. Infraction of the law cannot be tolerated to the detriment of the Medical Profession and the public at large. Mr. Andrews has been attempting to sit between two stools—the stool of Medicine and the stool of a vendor of drugs. Between the two he must come to the ground.

LAMBETH WATER AGAIN.

Dr. MacCormack, Medical Officer of Health for Lambeth, is reported to have made, on the 12th instant, an analysis "of the Southwark and Vauxhall Companies' water, drawn whilst the water was on from the main, from the house, 4, Walnut Tree-walk, Kennington-road," and states that, "having examined it by the two most modern and delicate processes, and having got results by both which confirm each other in the most striking manner, he has no hesitation in repeating that the water was totally unfit for human consumption, and little better than extensively diluted sewage. Of the two, the Lambeth water was a trifle worse than the Vauxhall, but both were much worse than many waters which have been already condemned, and the wells closed."

A CONTRAST.

At the meeting of the Leicester Town Council last week the following little episode took place:—Mr. Councillor Cottingham complained that Mr. Howse received £70 for inspecting cattle, whilst the Medical Officer received only £15 for similar services rendered to human beings. No one seemed to think that the Medical Officer received too little, but all agreed that the cattle inspector received too much. It was eventually decided not to raise the salary of the human Doctor, but diminish, if possible, that of the cattle doctor—that he be paid a fixed salary, instead of per case.

PRESENTATION TO MR. DUNN.

We learn that Mr. Dunn has been presented with a silver cup by the Strand Theatre company, in recognition of his long and valuable services. The presentation was made on the stage of the theatre, accompanied by a very appropriate speech from Mr. Arthur Swanborough. The cup bore the following inscription:—"Presented to R. William Dunn, by Mrs. Swanborough, the ladies and gentlemen of the Strand Theatre company, as a slight mark of their respect and esteem."

HOSPITALS FOR SMALL-POX.

It is curious to observe the various ways in which small-pox is propagated and encouraged even by those whose interest as well as duty should lead them to adopt an opposite mode of conduct. Here is a sample of the way in which "things are not done" in the important episcopal city of Lincoln:—At a late meeting of the Local Board, letters were received from the Clerks to the Local Boards of Sheffield, Norwich, Nottingham, etc., in answer to applications for information relating to small-pox Hospitals. The Hospital at Nottingham, to hold 120 persons, it was stated had already cost £2000, and it was not known what the ultimate cost would be. A report was also read from the Lincoln Dispensary, complaining of the apathy of the Board in providing accommodation for persons suffering from small-pox. Dr. Harrison, who was present, stated that during the present year thirteen cases had come under his notice. Three of the patients had died, and seven were well. The disease was of a very mild form. He further stated that twelve out of them would have been sent to Hospital. Hereupon one of the Local Board said, amidst some cheering, "I should act very differently with my family." Another gentleman did not think there was any necessity for a small-pox Hospital at all. There had always been during his life a few persons suffering, but there was no cause for alarm, as the city was too healthy, sweet, and clean. He did not think anyone would go into the temporary Hospital; he should not allow his family to do so; and none but the veriest paupers would go in. He moved that no further steps be taken in the matter. This, being seconded, was carried. This is the way to shelve a question; but it speaks little for the sagacity and common sense of the Lincoln Board that they should thus, by a side wind, ignore their duty.

TESTIMONIAL TO A SURGEON.

On the occasion of Dr. Alfred Harvey leaving the scene of his late practice, and the patients to whom he had administered for many years, a social gathering took place at "Simpson's," in the Strand, on Monday evening last. The dinner was served up in Simpson's best style, and the company, numbering nearly fifty influential gentlemen, passed a most pleasant evening. After the banquet, the chairman, Dr. Cross, presented Dr. Harvey with a splendidly illuminated testimonial and a purse of sovereigns. The testimonial bore the following inscription:—"We, the undersigned patients and friends of Dr. Alfred Harvey, whilst sincerely expressing our regret at his retirement from the neighbourhood of the Strand, embrace this opportunity to present him with this testimonial and a purse of sovereigns, and testify our appreciation of the admirable manner in which he has discharged his important duties for upwards of thirty years, and also record with gratitude the invaluable services rendered by the ability displayed in his Profession, and by his uniform courtesy and kindness; and trust that the satisfactory results which have attended his efforts here will command for him the same high esteem and regard where he is now located." Dr. Harvey acknowledged the compliment in a few eloquent words.

ST. PANCRAS MEDICAL ARRANGEMENTS.

The Board of Guardians of St. Pancras have determined to abolish the infirmary of the workhouse as a receptacle for cases of acute sickness. It will in future be used for cases of chronic disease only. Some changes have also been made in the Medical staff of the institution. Dr. Hill has been appointed Medical officer of the whole establishment, at a salary of £200, with residence, etc., and an allowance of £25 per annum for a deputy to act in his absence. With a view, if possible, we suppose, of offering some check to the number of inquests held in the workhouse infirmary, Dr. Hill, by his contract, is required to pay over all fees for post-mortem examinations and coroners' inquests to the Board of Guardians. Without expressing any opinion as to the policy of such a measure, it may fairly be doubted if the arrangement be legal.

RADCLIFFE STUDENTSHIPS.

We have much pleasure in publishing the following announcement. The offer, we are sure, will be received as a boon by the students of the favoured schools, and is highly creditable to the Radcliffe Trustees:—

"The Radcliffe Trustees, anxious to aid one or more advanced students in the scientific study of preventive or curative Medicine, offer £10 a month, for three months, to a student of St. Bartholomew's, Guy's, or St. George's Hospital desirous of working for that time in Oxford. He will have opportunities of studying physics, chemistry, geology, the higher parts of biology, clinical and sanitary Medicine. Candidates must be recommended on intimate personal knowledge by the Dean or Secretary of their Medical schools, and will not be submitted to an examination. Their names must be sent to Sir James Paget, Sir William Gull, or Dr. John W. Ogle, on or before February 20. The first election will be in the last week of February. There will be an election of another student in April. Candidates are requested to state in their application during what months other than the long vacation they would prefer to reside.—Oxford, January 31, 1872."

THE SICK POOR OF THE HOLBORN UNION.

One of the first questions which the newly constituted Holborn Board took into consideration was the rearranging and remodelling of its workhouse buildings. It has been determined by the Board to concentrate the whole of the paupers in two of the houses, instead of as heretofore in six. This work of improvement began last year. The whole of the buildings, with the infirmary, sick-wards, and administrative offices, will, when completed, accommodate 1500 inmates; and the total outlay, including all outgoings, will be less than £40 per bed, whilst other parishes are expending nearly £100 per bed upon their new establishments. The Holborn Guardians deserve the commendation, not only of their own, but of all other ratepayers in the metropolis, when it is remembered that a saving of £1 only per head on all the paupers of this metropolis would amount to no less than £150,000.

CHOLERA IN THE THAMES.

The Sub-Committee of the Thames Shipping Inspection Committee, in their report, state that there has been, up to the present time, no appearance whatever of cholera. They have, however, met from time to time, that they might be in a position to watch the course of the disease, and to take immediate action in the event of its making its appearance among us. Mr. Harry Leach's offer to act as Advising Medical Officer to the Committee has been accepted, and, immediately on the appearance of cholera in the River Thames or the metropolis, Mr. Leach will be engaged as principal Medical Superintendent, at a monthly salary of fifty guineas. The Sub-Committee have, from time to time, received communications respecting the progress and extent of the cholera on the Continent. The Honorary Secretary is at the present time in communication with the authorities, to arrange that official reports should be supplied them.

SMALL-POX JOTTINGS.

Seven fresh cases of small-pox had occurred in the Islington Medical district during the past week, as against five the week before. There had been two deaths from the disease.——It was reported to the Hackney Board of Guardians that no deaths of patients belonging to that union had occurred in the Small-pox Hospital at Homerton during the past week, but notice had been received of the discharge of five from that establishment.——The Medical Officer reported to the Holborn District Board of Works that during the previous fortnight one death had occurred from small-pox, and two fresh cases

were brought under notice.——Small-pox, of a very malignant type, has been prevailing for some time, and still prevails in Philadelphia to an alarming extent. In New York there has been during the winter a constantly increasing number of deaths from small-pox every week, but the disease as yet is not of so virulent a character as in Philadelphia.——In Nottingham, since November 20 last, 362 patients have been admitted to the small-pox Hospitals; of this number 189 were discharged, 121 still remain under treatment, and 52 died. But it is stated on reliable authority that there have been 150 deaths during the above period in private houses, making the mortality from this disease alone over 200. No person who had been vaccinated took the disease. Public vaccinators are now appointed. Nottingham and Wolverhampton are now the two highest in the bills of mortality.——Four fresh cases of small-pox were reported to the Kensington Board of Guardians last week, and two deaths.——The Medical Officer, in his report to the St. Olave's Board of Works last week, states "that during the past twelve months 157 cases of small-pox had occurred in the district; of these 144 had been vaccinated, 13 had not. Of the 144, 8 died, or at the rate of 5·7 per cent.; of the 13 unvaccinated 10 died, or at the rate of 76·9 per cent. These all referred to the Poor-law Medical practice of the district; as to private practice, a difficulty was experienced in getting at the returns, but the number of cases was estimated at 40, all of which must have recovered, as no death had been certified."——During the past fortnight 18 fresh cases of small-pox were reported at Wakefield, and 6 patients in the Small-pox Hospital.——The returns of small-pox cases in Aberdeen, made up to the 8th inst., show—Total number admitted to the Hospital since the opening 69, 1 new case admitted, 51 remaining under treatment, 7 patients discharged cured, and 11 deaths. The disease is greatly on the decline.——There were 7 deaths from small-pox during the past fortnight in the Hackney district.——In Poplar, in the past week, 3 deaths had occurred from the disease in the Union, and 11 fresh cases brought under notice. In the same period 63 persons were vaccinated at the public stations. In the North-street Infirmary 13 small-pox patients are under treatment.——The last quarterly return of deaths in Sheffield shows 360 from small-pox. The disease was epidemic in Sheffield during 1863-64, and again in 1868-69. During the ten years 1861-70 the fatal cases in Sheffield and Eccleshall Bierlow districts were no less than 1252. The present epidemic is, however, more severe than any in recent years.——In Halifax, from January 3 last to the 16th inst., 89 cases of small-pox were reported, and 8 deaths.——The Irish Registrar-General, in his report on the third quarter of the year 1871, states that, of the 19 cases of small-pox reported from Waterford, "all recovered except one, which was directly imported from Liverpool, and complicated with purpura hæmorrhagica. I attribute the providential escape of this city from the threatened epidemic to the perfect vaccination of all the children in this district, and also to the great amount of revaccination performed on the appearance of the first case of small-pox and previous to it." But small-pox had been very prevalent in Ireland during the quarter.——The small-pox epidemic in Edinburgh shows no sign of diminution, and in the eight principal towns of Scotland during the past month the disease is still increasing, the deaths having risen to 461 in January, as against 354 in the previous month.——Small-pox appears to be decreasing at Brigg, Lincoln, 2 fresh cases only having been reported in the last week. ——The Medical Officer of Health of Wolverhampton states, in his report to the Sanitary Committee, just issued:—"As far as at present can be ascertained, principally from statements made by friends of the deceased, 151 of the deaths from small-pox occurred in those who were confessedly unvaccinated; 106 were stated to have been vaccinated, but many of these were probably unvaccinated. Of 69 no information was obtained." ——In the metropolis, during the week ending last Saturday, 68 deaths occurred from small-pox, showing an increase on the week previous of 16.——In the four Small-pox Hospitals at Hampstead, Islington, Homerton, and Stockwell, 34 deaths were returned last week, against 37 and 27 in the two preceding weeks.——In Dublin, last week, 17 deaths from small-pox were reported, against 40 and 47 in the previous fortnight. ——A newspaper reporter at Ryde was, on Tuesday, fined by the magistrates 2s. 6d. and costs, for selling a local newspaper which had been exposed to infection from a person in his house suffering from small-pox, without having previously disinfected it.

MEANS FOR DISINFECTION.

The City Commissioners of Sewers have resolved upon the construction of a room for infected articles, a room for the storage of articles after disinfection, a shed for a truck, and a furnace for burning infected flock, etc., on the ground in Golden-lane purchased for mortuary buildings, etc.

FROM ABROAD.—GUNSHOT WOUNDS OF THE BRAIN.

Professor Podrazki, of the Joseph Military Academy of Vienna, has narrated in two recent numbers (December 9 and 16) of the *Wiener Medizin. Wochenschrift* an interesting case of gunshot wound of the brain followed by recovery.

Early in October, 1869, a youth aged 15 was accidentally shot in the head by a pistol, and on Professor Podrazki seeing him next day he found a round wound one centimetre in diameter, situate at the internal end of the left arcus superciliaris, into which he could pass the end of his little finger. At its bottom he found some coagula, and could feel a slight pulsating movement. The bony edges of the wound were sharp and jagged, and the surrounding skin was blackened by the powder. The lad, who was robust and healthy, lay pale and senseless, the pupils being widely dilated and in nowise sensitive to light. The breathing was stertorous, and the pulse, which was very compressible, beat only 54. A small quantity of slightly blood-coloured serum flowed from the wound. Both extremities were completely paralysed on the right side, and the urine had passed away involuntarily. The Practitioner who had first seen him had passed a probe some five or six inches long into the track of the wound (which ran horizontally backwards) without coming in contact with the ball. The diagnosis here was easy, all the symptoms indicating that the projectile had probably done extensive injury to the left anterior lobe of the brain, and that this had been attended with a considerable extravasation of blood either into the substance of the brain or between its surface and the bony coverings. Where the ball might be could not be conjectured. Of course, the prognosis was highly unfavourable. The treatment was expectant, ice being applied to the head, strong soup administered, and cold-water clysters given as an occasional aperient. Searching for the ball was out of the question, and the locality of the wound prevented the patient being placed in a position favouring the action of gravity.

In a few days the patient's consciousness gradually returned so that he became able to answer questions, but only after long consideration, as if he were in search for words, and then very slowly—in complete contrast with his ordinary quick and lively speech. In about a week some pain in the head appeared, accompanied by a pulse of 130, regular morning vomiting, and sleepless nights. There was occasional delirium, and the palsied limbs were very tremulous. The discharge from the wound consisted in part of genuine pus and in part of serous fluid. This condition of things had several times alternated with a remarkable remission of disquieting symptoms, when suddenly, about the middle of November, a soft, pale-red tumour made its appearance, projecting from the wound, but gradually became covered over by the granulations and skin, which formed over it a tolerably firm cicatrix. At first only of the size of a hazel-nut, it gradually but slowly increased.

Simultaneously with its appearance the condition of the patient exhibited a most marked improvement, his pulse going down to 80, his consciousness being clear, his sleep and appetite excellent. Even the paralysis exhibited decided improvement.

On December 12—two months after the accident—Professor Podrazki was alarmed at learning that the Surgeon in attendance had mistaken this tumour lying over the healed wound for an encysted tumour, and had proceeded to remove it. Alarmed, however, by the large quantity of black blood that issued on an incision of the skin, he desisted from the attempt. The author, on arriving, found a hernia cerebri of the size of a small walnut, which had become covered by a firm cicatrix. This having been cut through, as stated above, the pure cerebral mass projected. An attempt at returning this having been attended by the sinking of the pulse from 90 to 54, and by the patient becoming faint and cyanotic, it was determined to leave it as it was, only covering it with oiled linen and wadding. At the same time a remarkable appearance was discovered a little above the external occipital protuberance—a small, elastic tumour, the size of a bean, which, on pressure, yielded somewhat and felt painful. Spontaneous pains had, it seems, all along been occasionally felt here. The bones appeared entirely intact; but as this small tumour corresponded pretty nearly to the spot at which the ball coursing along the inner surface of the bones might be expected to reach, the question arose whether the swelling was not connected with the presence of the ball, and whether trephining would not be justifiable in order to secure its removal and to give issue to the pus, which possibly was the cause of the hernia cerebri. This procedure Professor Podrazki considered too conjectural, and at all events not to be had recourse to unless symptoms of cerebral compression came on. The patient at that time was improving every day, the paralysis having much diminished, so that he was able to sit up for some hours daily. He had, however, entirely lost the power of memory for recent occurrences and for things that had happened only a few hours, while remote events were well recollected. His visual power was also to some extent enfeebled. It was resolved not to interfere. There was a continuous flow of a clear, serous fluid (cerebro-spinal?) from the wound made by the incision, and the hernia cerebri—or, as Professor Podrazki prefers calling it, the prolapsus of the brain—continued to increase, until it had attained the size of a walnut, projecting over the incision-wound. By July, 1870, complete cicatrisation had taken place, and a photograph is given of the lad's appearance at that time. The tumour measured two inches in length, and was one inch and a half in thickness, being quite transparent, and very elastic in its anterior part. At its base the sharp edge of the bony aperture could be felt, surrounded at its lower portion by somewhat pointed osteophytes. Compression employed for some minutes diminished the size of the tumour remarkably, this becoming soft, and having a faint pulsation, while the usually excessively distended skin was thrown into folds. This pressure, however, threw the patient into a state of syncope, his pulse becoming remarkably slow. The tumour evidently only in part consisted of cerebral substance, the remainder (in its anterior portion) being cerebro-spinal fluid; and the author resolved, in consultation with Hofrath von Pitha, to resort to puncture. This he executed in November, 1870, by means of Dieulafoy's *aspirateur pneumatique*, and the tumour immediately diminished to half its size, while the remainder was, by means of gradual and gentle pressure, entirely returned, without any symptoms of cerebral pressure being produced. A pad was applied to retain it. Quite recently the author has heard from the lad's friends that nothing now remains of the tumour, the forehead being quite even, the aperture in the bone being filled up with a firm cartilage-like substance. The general health is excellent, and the patient is able to walk about, though only slowly, as the power of the right foot is not yet quite restored, although the paralysis of the arm has completely disappeared. Speech is still slow and difficult, and has become remarkably deep. The intellectual power has not diminished.

Professor Podrazki observes that the friends of the lad regard him as cured, but for the Surgeon he is still a subject of anxiety; and it is only in a qualified manner that he reports the case as a "recovery." Indeed, in some interesting general observations with which he prefaces the narrative of this case, it is evident that the greatest caution must be observed in delivering our prognosis in this class of injuries. We have only space to briefly allude to some of the remarks in question. Sometimes, it is observed, death takes place only weeks or months after gunshot wounds of the head, either in consequence of secondary inflammation having been set up, an abscess having formed in the track of the wound, or from decomposition of extravasated blood. As long as the ball remains within the skull, life is permanently menaced, although the wound may have completely healed and all cerebral disturbance have disappeared. Various authors have recorded cases in which, even years after apparently complete recovery, death has taken place, either suddenly without preliminary symptoms, or under an apoplectic attack, or with a gradual loss of strength. In the great majority of cases acute encephalitis or meningitis occurs, the patient dying with symptoms of compression of the brain from the formation of matter, or with those of pyæmia. Sometimes death takes place quite suddenly when all seems to be going on quite well. This was so in a soldier from the Italian war, who, standing upright by his bed and questioned as to his ailments, laconically replied that he had a ball in his head. And so it proved. The pulsations of the brain were visible through an aperture in the frontal bone. His pulse beat only 44, but otherwise he seemed very well, and was making decided progress, when, on standing up, he fell down suddenly, dead. An abscess was found in the anterior lobe of the brain, and the ball lay at the bottom of it. In other cases the ball sinks by its own weight through the soft mass of the brain until, coming in contact with some important part, it at once causes death. Sometimes it reaches the base of the skull, where it remains long without doing mischief, or may become eliminated—although this is one of the rarest of occurrences. Patients are placed in the greatest danger by attempts being made to search for the position of a ball by means of a probe; for this may easily, without being perceived, penetrate uninjured portions of the soft mass of the brain, and give rise to immediate death. Whenever the probe is used all pressure must be abstained from, the instrument being left to glide along. The occurrence of prolapsus or hernia cerebri, which usually takes place only some weeks after the occurrence of the injury, adds much to the gravity of the prognosis. According to Bruns, about two-thirds of those who exhibit this die, and Professor Podrazki's experience leads him to consider this a too favourable statement. The seven cases which have occurred in his Clinic of the Joseph's Academy between 1854 and 1870 have all died.

PARLIAMENTARY.—HABITUAL DRUNKARDS—REGULATION OF MINES—ABOLITION OF CAPITAL PUNISHMENT—PREVENTION OF CONTAGIOUS DISEASES.

In the House of Commons, on Thursday, February 8,

Mr. Donald Dalrymple, stating that he was in possession of certain facts to prove the feasibility of the object in view, moved that a Select Committee be appointed to consider the best plan for the control and management of habitual drunkards.

The motion was agreed to.

On Monday,

Mr. Bruce brought in his Mines Regulation Bill.

A Bill for the Abolition of Capital Punishment was read a first time.

On Tuesday,

Mr. Bruce brought in his promised Bill for the Prevention of certain Contagious Diseases and for the better Protection of

Women. He prefaced his statement by a sketch of existing legislation on this subject, and of the agitation it had excited. To illustrate the working of the Act, he quoted largely from the Report of the recent Commission, adding that, though opinions might differ on the balance of their moral results, as to their physical operation in the diminution of disease and vice there could be no question. However, the Government had reluctantly come to the conclusion that it was impossible to maintain in a limited district the main principle of the Act—viz., compulsory periodical examination—while it could not be extended to the whole country. And this he held to be impossible in the present state of public opinion, of which the Acts went far in advance. The present Bill proposed to enact that every common woman who in any public street importuned persons should be liable to be dealt with under the Vagrant Act, and that for this purpose the Vagrant Act should extend to Scotland and Ireland. For the first offence under that Act, the offender, as a disorderly person, was liable to three months' imprisonment; for the second offence, as a rogue and vagabond, to six months' imprisonment; and for the third, as an incorrigible rogue, was liable to be tried at Quarter-Sessions and sentenced to twelve months' imprisonment. The next provision of the Bill was borrowed from a recent clause in the later Poor-law Acts, which enabled the Guardians when any paupers within the workhouse were discovered to be labouring under contagious diseases to detain them until they were cured. The Bill proposed to apply the same rule to women of the class referred to. All such women committed under the Vagrant Act, or generally as disorderly persons, would, if found to be suffering under contagious disease, be liable to be detained in the prison infirmary or in some certified Hospital until they were cured, or for a maximum period of nine months. No compulsory examination would in that case be necessary. Besides those who were committed to prison summarily as disorderly women there was a considerable number of women committed to prison for other offences, where the evidence showed that they were leading an immoral life. It was, therefore, proposed that the committing magistrate, in all summary cases where he was satisfied a woman was leading a disorderly life, should certify the fact, and in the event of the prisoner being found to be suffering from contagious disease she would be detained in the same way as the class of prisoners last described. There were special reasons why women of the class in question should not be permitted to return to their miserable calling while suffering from contagious disease, and, therefore, he limited his proposal to these two classes of cases. The prison Surgeon would report the existence of disease, and the report would be sent by the gaoler to the justice, who would make an order for the detention of the patient. The woman thus detained in prison after the term of her sentence might by order of the justices be removed to a certified Hospital, but if not sooner cured her detention would not exceed nine months. As an additional precaution, the chief Medical officer of the prison infirmary or certified Hospital would be required each month to transmit a certificate that further detention was necessary. The justice, however, would have the power of discharging a woman either from the prison infirmary or the certified Hospital, although not cured, if he were satisfied she intended to abandon her former life. The expense of sending the woman from the infirmary to the Hospital and from the Hospital to her home would be borne by the prison authorities. He now came to that portion of the Bill specially devoted to the protection of women. The existing law made punishable with penal servitude for life offences of a certain description upon children under 10 years of age, and he proposed to extend the age from 10 to 12. The same offence committed upon a child between 10 and 12 was at present a misdemeanour punishable with penal servitude for ten years, and he proposed to extend that protection to children under 14. At present the obtaining possession of a girl under 21 by false pretences or representations was a misdemeanour punishable by imprisonment for two years. He knew no reason for limiting these cases to women under 21, and he proposed that the punishment should equally apply when the offence was committed against women of any age. With regard to disorderly houses, the law at present was that if the landlord of a disorderly house allowed women whom he had cause to believe diseased to frequent his house he was guilty of misdemeanour, and liable to a fine of £20 or six months' imprisonment. The recommendation of the Commissioners, which he had adopted, was that whenever a woman was found in a disorderly house, the landlord, whether he knew it or not, should be liable to the same punishment. He proposed that the harbouring of children under 16 should be declared a misdemeanour punishable summarily before a magistrate by six months' imprisonment, or, upon indictment, with two years' imprisonment, in each case with or without hard labour at the discretion of the judge. He also proposed that the parochial authorities should be enabled to prosecute the keepers of disorderly houses without its being necessary that they should first be called upon to act by two ratepayers. He also proposed to make the landlord of a disorderly house liable if he knew it to be kept as such, although he might not be resident in it, and although he might take no part in the management. He proposed, further, to give the landlord power summarily to determine the tenancy of a disorderly house, whatever the terms of the lease might be. The last provision of the Bill referred to common lodging-houses, the keepers of which would be deprived of their licences and subjected to punishment if they knowingly permitted them to be frequented by persons of immoral life. The greater part of these provisions were founded upon the recommendations of the Commissioners, and some had been suggested by an examination of the general law. Mr. Bruce did not disguise his regret at having to take what he evidently considered to be a backward step, but the advantages of the Acts, he urged, were overbalanced by the agitation which had been carried on, its flagrant exaggerations and misrepresentations, and the distressing spectacle of female modesty broken through by taking part in these discussions. He hoped that the operation of the Bill would create a fund of experience which at some future time might help to establish more efficient means of repression.

A short discussion followed the explanation of the Bill, in which Mr. Jacob Bright touched on some of the most unsavoury parts of the subject, described the first commencement of this legislation as an "infamous Act," and based his opposition to it on the principle of "civil liberty." This plea was ridiculed by Dr. Dalrymple and Dr. Brewer, who eulogised the sanitary benefits of the Acts. Sir J. Pakington, Sir J. Elphinstone, and Sir J. Trelawny denounced in strong language the timid and unworthy policy of the Government in abolishing Acts of which they approved, and the latter sharply attacked Mr. Jacob Bright for his prejudiced opposition to the Acts. On the other hand, Mr. Mitford, Mr. Henley, Mr. Rylands, and Mr. Otway denied altogether the sanitary and moral benefits of the Acts, and supported their repeal.

BRADFORD FEVER HOSPITAL.

The wealthy and populous town of Bradford has recently placed some of its money at interest in a manner which reflects credit on itself, whilst conferring great benefit on some of its poorer inhabitants. It has erected an admirable Fever Hospital.

Next to hunting out and destroying the sources from which fevers spring, no doubt the best thing is to provide for the proper treatment of cases when they occur, and this seems to have been the thought of Mr. Alfred Harris (the founder), Sir Titus Salt, and an unknown donor, who in 1869 subscribed the handsome sum of £11,800 towards this object. Since that time the subscriptions for building, etc., have amounted to £22,520, and with this money the committee formed for that purpose have just thrown open for the reception of fever patients the best-adapted series of buildings, perhaps, in the kingdom.

The Hospital, which is planned on the pavilion system, and provides for the separation of the contagious fevers, stands upon a hill, in the centre of about eight acres of ground, far away from private houses, and within a mile of the town. It consists of four wards, arranged side by side in a row, and about thirty feet apart. Each ward contains ten beds, and to each bed is allotted 2300 cubic feet of space. The floors are of polished oak, and the walls of Parian cement—hard, smooth, white, and shining. Ventilation is obtained by orifices in the windows, walls, and roof, and by a simple contrivance is placed beyond the control of patients.

Corresponding to each of the four wards is a private and convalescent ward, with nurses' sitting-room, supplementary kitchen, scullery, lavatories, baths, night-chairs, and water-closets. At twenty yards distance from the row of wards, and at right angles to the last of them, is a separate building—consisting of two wards, each containing eight beds, with two corresponding rooms for convalescents, nurses' sitting-rooms, offices, etc.—for the treatment of scarlet fever exclusively. Again, at right angles to this, and parallel to the four

large wards, stands the administrative block, in which are nurses' dining and sleeping apartments, kitchen, bakehouse, servants' offices, etc., rooms for the resident Medical officer and matron, with all the requirements of a well-appointed modern dwelling-house. The whole series of buildings, which are connected by a thoroughly ventilated covered way, form a quadrangle, enclosing a space of ground which is laid out as a garden. Communication between the different wards and the house is supplied by telegraphic apparatus.

At other parts of the grounds are placed wash-houses, disinfecting chamber, post-mortem room, mortuary, stable, and coach-house. In the latter is a comfortable modern ambulance for the conveyance of patients from their homes. Provision is made for ventilating the main sewer leading from the Hospital, by conducting a shaft from it into the chimney of the engine-room, and each separate water-closet, slop-sink, waste-pipe, etc., in addition to being double trapped, is fitted with a ventilating-pipe placed between the two traps, and carried on the outside to the top of each building. Dirty linen, etc., on removal from patients, after being immersed in disinfecting fluid, is thrown down a shaft communicating with a brick chamber, placed in the open air, whence it is taken to the wash-house.

The architects, Messrs. Andrews and Pepper, frequently availed themselves of the personal instruction and advice of Drs. Murchison and Bridges, of London, and of Dr. Bourne, formerly Physician to the Bradford Infirmary, on points connected with the sanitary arrangement of the Hospital.

PSOAS PARVUS.

By J. BESWICK PERRIN,
Demonstrator of Anatomy at King's College, London.

The natural history of this muscle is simple; it is either psoas parvus or nothing. Its modifications are of a minor character, being differences only in degree of development. According to Douglas, it was first discovered by John Riolan, and described by him in his "Anthropographia" in 1649. Some thirty-two years later, Brown, in his treatise of the "Muscles of the Human Body," mentions the psoas parvus (so called by Bauhine) as "occurring in some bodies, arising fleshy, the length of a little finger, and terminating in a slender and plain tendon above the psoas, and ends with the psoas and ileon, and embraceth them firmly." Bartholine describes it as "found in a strong and fleshy man at the Hague, three fingers in breadth at its origin, terminating, also, fleshy at the upper margent of the os ilii at the origin of the iliacus internus." Molin found it also, and stated that it appears not very frequently. J. Baptistæ Morgagni, in his "Adversaria Anatomica Omnia" states:—"Miror quoque, cur psoas parvus, qui haud ita perraro inveniri solet, ab eodem Verheyenio ne memoretur quidem à te vero, et plerisque alterum illius extremum unde potissimi ejus usus notitia pendet, ignorāri esse in osse pubis implantatum, quemadmodum Cowperius docet, et ego pluries inspiciens deprehendi." Albinus gives a very accurate drawing of the psoas parvus.(a) Douglas says "it arises fleshy from the upper vertebræ of the loins laterally."(b) As regards its insertion, he coincides with the elder Monro in assigning it to the ilio-pectineal ridge. Riolan states that he never could find this muscle in women. Douglas pithily remarks that it is often missed in the human body, but never in a dog. It is needless to multiply the opinions of ancient authors. It is generally recognised by modern anatomical writers as a muscle sometimes found—some, however, describing it without any reservation, as if a persistent muscle. In the last edition of Quain's "Anatomy" there is the following honest statement made in reference to the psoas parvus:—"Although well developed and constant in animals, it is most frequently absent in the human subject. It was found in only one of twenty bodies examined by Theile with special reference to its existence. When present, it is liable to many changes in the place of origin: thus, it may be connected only with the first lumbar vertebra, or with the second, and the intervertebral substance above it, and it has been observed to commence by two parts or heads separated by an interval." Its average proximal attachment is best considered as described by that most accomplished and accurate of all anthropotomists, Ellis—viz., to the sides of the bodies of the twelfth dorsal and first lumbar vertebræ, and the fibroid disc between them. Not that this is the statement alone of the latter observer, but for the simple reason that he is the most able exponent of average human anatomy.

Now, for several years past I have had my attention directed to the frequency of occurrence of this muscle, and have carefully examined every human subject brought into the dissecting-room during this period of time. During the winter session 1868-69 I found it in only two subjects—a male and a female—out of twenty-nine. It was present on both sides, and well developed. In the male subject it attained to an unusually large size, almost equal in bulk to the psoas magnus. In the session 1869-70 I found it in no less than fifteen out of twenty-nine subjects—thus, in nine males and six females. It occurred on both sides in six males, in two on the right, and in one on the left only. In the female subjects it was present on both sides in five, and on the left only in one. During the session 1870-71, of thirty subjects, it occurred only in six, all males—in four it was present on both sides, in one on the left, and in the remaining one on the right side. In twelve subjects which came under my notice whilst acting as temporary assistant to Professor Flower at the Royal College of Surgeons during the April and May Anatomical Examinations of 1870 and 1871, I found the psoas once only in a male on both sides out of six in 1870, and twice only in the six of 1871; the latter occurred in spare female subjects—in one on the left side, and in the other on the right side. Out of twelve subjects—seven males and five females—during the present session 1871-72, the psoas parvus was present on both sides in four males and in two females.

From these statistics of 112 subjects examined, the psoas minor was found in thirty-two—twenty-one males and eleven females—its presence in the former being twice as frequent as in the latter; and the rate of its occurrence is in one out of every three and a half of the aggregate number.

The proportion of male to female subjects during the above-mentioned periods was pretty nearly equal.

There is considerable discrepancy between the assertion of Theile, that it occurred in one only out of twenty subjects, and the collated facts which I have described. But, however glaring the apparent difference, when analysed it will be seen that Theile may not have been very far from the truth. During the 1868-69 session I met with only two specimens in the twenty-nine subjects, while in the succeeding session fifteen occurred out of the same number of subjects. Again, in the present session, of the twelve subjects alluded to the psoas minor was found in six. These facts show the fallacy of limited statistics. The only way to arrive at an approximation of the truth is to multiply the number of observations. Again, it is quite possible that thirty subjects, or even twice that number, might be examined, and the psoas minor not be found in a single one. And it is very probable that this muscle may be less frequently met with in one race than another—a condition of great importance, and by no means made the most of.

The average attachment of the psoas minor is decidedly that described by Ellis. There are, however, considerable fluctuations in size met with, both of the proximal muscular part and the distal tendinous, even with the average attachments. Beyond these it shows its vagrant or metamorphosic character, sometimes by excessive aggregation, at others by extenuation. Again, there is not always coequality in the psoæ of the two sides—for example, in one female subject, moderately muscular, I found it arising musculo-tendinous from the sides of the bodies of the fourth and fifth lumbar vertebræ and the disc between them on the right side, while the left specimen was attached proximally to the first and second lumbar vertebræ and disc.

In several specimens the proximal belly was attached to the sides of the last dorsal and two upper lumbar vertebræ, simulating exactly the arrangement I met with of this muscle in the great ant-bear (*Myrmecophaga jubata*) and in the Tamandua ant-bear.(c)

Galton has described a similar arrangement in the *Dasypus sexcinctus*,(d) and Professor Humphry in the unau, pangolin, and manis.(e) In the mole (*Talpa Europea*) it arises from the last dorsal and first lumbar vertebræ, as in the average arrangement in man. Percival describes its proximal attachments

(a) Plate iv., "Tables of the Skeleton and Muscles of the Human Body."

(b) "Myographia Comparata."

(c) I am much indebted to Professor Flower for his kindness in allowing me the privilege of dissecting these interesting animals.

(d) *Transactions of the Linnæan Society*, vol. xxvi.

(e) *Journal of Anatomy*, second series.

in the horse as follows:—"To the heads of the sixteenth, seventeenth, and eighteenth ribs, to the bodies of the three posterior dorsal vertebræ, and to those of all the lumbar vertebræ." With minor modifications of no material interest, I have found the psoas parvus in several species of the dog, the cat, the squirrel, the hare, the rabbit, the mouse, the Norwegian rat, the guineapig, the hedgehog, and the napu (*Tragulus Javanicus*). In some of these, this muscle is so closely associated with the psoas magnus as to be scarcely separable from it as a distinct muscle.

I have described in the kinjajou(f) and *Paradoxarus typus* that there is a further extension backwards of the psoas minor to the third lumbar vertebra, but the actual substantive breadth is equalised by the elision of the last dorsal vertebra attachment. In the caracal there is a still further posterior extension to the fourth lumbar vertebra. It is very probable that the divided proximal belly occasionally found in the human subject is a retrograde fissured homologue of the continuous sheet of the carnivor psoas minor. Professor Humphry has described a specimen of the psoas parvus in the *pteropus*, with an anterior extension—viz., two or three lower dorsal co-existing with a third lumbar vertebra posterior extension.(g)

The most remarkable variety of this muscle which I have met with is a purely digastric one: it occurred in a muscular male subject. The proximal belly extended from the last dorsal to the second lumbar vertebra, terminating in the usual, but rather stronger, tendon. From the outer and distal aspect of this tendon a larger additional muscular belly arose, one inch and a half broad, and six inches long, somewhat wedge-shaped. The distal extremity converging somewhat, was finally implanted upon the anterior aspect of the psoas magnus tendon, below Poupart's ligament. The intervening tendon, instead of being lost in this distal belly, arched inwards to its usual termination at the ileo-pectineal eminence and brim of pelvis; this occurred only on the right side, the left being normal. So far as I am aware, there is not another case on record of such an anomalous variety of this muscle in the human subject. This peculiar arrangement approaches somewhat in character to that met with in the common seal. Meckel has given a very good description of it: "Le petit psoas est pour le moins douze fois plus volumineux que les deux précédents réunis. Il est partagé en deux chefs: l'externe, qui est le plus grand, naît principalement des apophyses transverses de toutes les vertèbres lombaires; tandis que l'interne, plus petit, vient des corps de la plupart des vertèbres lombaires inférieures. Le premier s'insére au fémur en dehors du grand psoas en dedans de l'iliaque; le second se fixe à l'eminence iléo-pectinée en dedans du grand psoas, qui est par conséquent embrassé par les deux chefs du petit psoas."(h) This is one of several eccentric varieties of muscles which I have met with in the human subject, finding an analogue in the seal.

As regards the minor varieties which the proximal belly presents in different subjects, they are merely differences in degree rather than in kind. The distal attachment affords a subject-matter of considerable interest. The long, slender, and flattened tendon, which is the resultant of the proximal muscle, usually continues an uninterrupted course to its pelvic marginal attachment, arching over the inner border of its greater associate, and intervening between it and the external iliac artery. Not unfrequently the tendon has expanding from its outer side, while lying on the great psoas, a strong aponeurotic fascia which covers the subcrural ligament portion of the ilio-psoas, and, passing under that ligament, becomes gradually lost in the iliac fascia. This fascia varies materially in different specimens. The most important, however, is that attachment which is effected by the direct continuation of the principal tendon into the pelvic fascia. In several specimens I have dissected the tendon from its ilio-pubic ramus attachment, and found that the greater part of its tendinous fibres expanded directly into the pelvic fascia, making the muscle into a tensor of the pelvic rather than of the iliac fascia. The general direction of the muscle being towards the pelvic cavity, and its occasional continuity with the pelvic fascia, afford just and sufficient grounds for the hypothesis that the true function of this muscle is as a direct antagonist to that of the levator ani, which may be considered as its segmented distal belly. As a tensor of the iliac fascia, it is a useless expenditure of *vis musculi*; as a flexor of the pelvis on the thorax, it is an insufficient and almost useless vagrant; but as a tensor of the pelvic fascia, and antagonist to the levator ani, its presence in the animal economy is no longer a subject of vague wonder.

It would seem from the assertion of Professor Macalister(i) that this muscle is subject to variations in the chimpanzee. In a specimen which he dissected, he found the psoas minor present on both sides, one-thirteenth the size of the ilio-psoas. He further remarks that it was not found by Vrolick, Wilder, or Wyman. In a specimen which I dissected during last summer at the College of Surgeons, there was not a vestige of the psoas minor on either side. I found it, however, on both sides in the douroucouli—a monkey equally anthropoid in its muscular anatomy with the chimpanzee. It seems to be a very persistent muscle throughout the mammalia, from the ornithorynchus to man, and to preserve a considerable uniformity in its disposition. The question arises, Is the muscle in a transitional elevation character, or has that character been played out, and is it now in a gradational abortive stage? If the former, it is of a directly antagonistic character to other vagrant muscles which play their parts out more rapidly in the transition from lower to higher animals, and affords a characteristic illustration of the slow process of muscle-change. The latter is, however, much more probable—that it is in a state of degradation—for the following reasons:—1st. From its comparative rarity in the human subject, and its vagrancy in the chimpanzee, compared with its persistence in mammals lower in the scale of creation. 2nd. From the analogous evidence afforded by other muscles which have passed through the digastric into the monogastric stage. 3rd. From the tendency manifested in high grades of organisation to reduce the expenditure of muscular energy to the lowest degree consistent with efficiency, by accommodation; this effect being produced by transition of muscular into ligamentous tissue.

(f) "Myology of Limbs of Kinkajou," *Proceedings of Zoological Society of London*, June 20, 1871.

(g) *Journal of Anatomy and Physiology*, vol. iii.

(h) Tome vi., p. 372.

REVIEWS.

Diarrhœa and Cholera treated by means of the Spinal Ice-bag. By John Chapman, M.D., &c. London: Baillière and Co. 1871. Pp. 84.

This pamphlet contains the farther experience of Dr. Chapman in the treatment of diarrhœa and cholera by means of the application of ice to the spine. The author first published a statement of his method, of its results and of the principles upon which it is founded, in a larger volume, which was noticed by us in this journal for November 3, 1866. Since then Dr. Chapman has been able to add largely to his materials, and the present time seemed an appropriate one for bringing the whole question once more before the Profession. Cholera is still hanging ominously upon the skirts of Europe, and we are now spared—perhaps but for a time—to put our houses in order and to reckon up our means of defence; we are disposed, therefore, to measure the attention to be given to this pamphlet less by its size than by the pressing importance of the subject of which it treats. Our readers are probably familiar with Dr. Chapman's views of the causation, pathogeny, and consequent treatment of diarrhœa and cholera, urged, as they have been, with the author's well-known earnestness, ingenuity, and forcible reasoning. Dr. Chapman holds that summer diarrhœa, cholerine, and Asiatic cholera are but varieties of one process, differing, as it would appear, partly with the intensity of the chief cause, partly with the favourable or unfavourable sanitary conditions which surround the patient. Moreover, he holds that this cause is not a poison, by which he distinctly means that the cause is not a material particle or particles transmitted from sick to healthy persons. The question, he says, is not one of the introduction of new matter, but of the states of the old matter; and among these states its temperature is, in his eyes, of chief importance. In support of this hypothesis Dr. Chapman brings much evidence to show that the appearance and severity of cholera have, accidental conditions apart, coincided with an increase in the heat of the atmosphere. He believes that one immediate effect of this increase of temperature is to produce hyperæmia of the spinal cord and sympathetic nervous system, which, in its turn, sets up diarrhœa or cholera according to its intensity. The application of this is, that, in order to combat these changes, we must interfere with the chain of events, and, by removing the hyperæmia of these nervous centres, thus remove the immediate antecedent of the intestinal disorder. This end, of

(i) *Annals and Magazine of Natural History*, vol. vii., No. 41.

counteracting the effects of heat upon the centres, is to be attained by means of the application of cold to them or as near to them as possible, and this is most conveniently done by placing bags containing ice in the course of the spinal column. The author, having proposed this method of treatment, has in the next place to determine its actual value in practice; he accordingly completes his case by bringing forward a large body of evidence to show that his method, when carried out by attendants with the minute care he has a right to enjoin upon them, is, if not uniformly, at any rate very largely, successful. Dr. Chapman's chief arguments may, then, be summed up in this wise:—1. That cholera and summer diarrhœa are effects of the same cause, acting with varied intensity. 2. That this cause is high temperature. 3. That we need not assume the existence of a special material poison. 4. That high temperature sets up cholera by producing irritation of the spinal cord and sympathetic system, with hyperæmia. 5. That such irritation and hyperæmia can be combated by means of cold, and of ice in particular, applied over the spinal column in a certain careful way. 6. That by this means, therefore, we can and do succeed in removing the choleraic state. These arguments are enforced at somewhat greater length in the pamphlet before us and are supported by an extensive array of facts in the preceding volume. It is unnecessary for us to point out the extreme importance of these statements; and, although very complicated and presenting not one but many vulnerable points, we must say that they are backed by very strong evidence used with much knowledge and skill—so much so, indeed, that they cannot be overlooked but claim our instant attention. In order to see our way through this difficult and complex question, then, let us see how far these six heads of arguments are independent, or how far the existence of any one of them depends upon the certainty of the remainder. It appears to us that they are not all necessary to each other, but the following points may be considered separately:—First, whether summer diarrhœa and cholera are the same thing in different degrees; secondly, whether one or both of these are not due to a material poison; thirdly, whether they are due rather to high temperature with extremes of atmospheric variation; fourthly, whether hyperæmia of the spinal cord and sympathetic system is a *conditio sine quâ non* of cholera and cholerine; fifthly, whether such hyperæmia (if present) can be reached and removed by ice applications to the exterior; sixthly, whether such applications are a means of cure; and seventhly, whether, if so, they cure by removing the hyperæmia aforesaid or by some other process. Now, these arguments need not all be true, and especially may we separate the therapeutic from the pathological portion of them. We cannot but be pleased to think that the evidence is most strong in support of that one position in which we are most immediately interested—namely, that the ice treatment is successful. This, surely, is the main point; and in the face of the miserable results obtained under the use of other methods, we cannot but form a favourable estimate of the alternative treatment here proposed. Whether this alleged success acts in the way suggested seems to us less certain.(a) The pathological views of Brown-Séquard, upon which Dr. Chapman in great measure relies, have scarcely been strengthened by recent observations; but, on the other hand, Brown-Séquard is no mean ally in framing a hypothesis. When we pass on to the question of causation, we must confess that we are now constrained to part from Dr. Chapman altogether. We cannot venture to deny all truth to his position, nor to deny the value of so bold and independent an attitude in its influence upon contemporary speculation; but we are constrained to say that as yet an overwhelming weight of evidence is against the author. That the nervous system may be the system primarily attacked, and may be the secondary source of all the bodily disorder, is possible, or even probable—at least, this view is quite as reasonable and tenable as some others of which we hear a good deal; but if Dr. Chapman denies that cholera depends in any way upon the introduction of a material poison from without, we hesitate to follow him. A high and very variable temperature may be one factor, and the conditions of the ground-water (investigated by Dr. Pettenkofer) may be another; but the introduction of some specific material poison into the system from without seems to us to be almost indisputable. The observed course of cholera through Europe can scarcely be interpreted so favourably as Dr. Chapman seems to think, though we speak with deference on this matter, as Dr. Chapman has certainly looked as thoroughly into the matter as other authors. Again, the well-known cases of well-poisoning, such as that of the fountain at Constantinople and of the Broad-street pump, investigated by Snow, carry something like conviction with them. Still, we would say again, that the theoretical part of the treatise before us is one thing, and the practical part another; and we think that in our present helpless state we are bound to give attention to the treatment which seems to have produced results which, so far, promise so well. The ice treatment, like any other therapeutical process of an active kind, requires minute care in the use, and should be practised by a skilled Physician. We do not know what Dr. Chapman's engagements will allow him to do, but we would urge that, if unfortunately the occasion should arise, he should be requested to undertake the management of a certain number of patients in connexion with an assessor from the Privy Council and with a staff of efficient nurses and assistants. If the issue equal or even approach the expectations of the author, we shall indeed have great reason for thankfulness.

(a) We are disposed to think the effect upon the cutaneous nerves, with consequent reflex overtone or paresis of the vessels in the meninges of the nerve-centres (Nothnagel, Loven) must be counted as a main element. And, although we fortunately have no experience of cholera thus treated, yet in fairness to Dr. Chapman we ought to say that we have found the ice-bag very useful in some other disorders. For example, we have found it strikingly successful in maniacal conditions, when applied to the cervical region; in sympathetic vomiting, likewise; and in some other conditions too numerous now to mention.

GENERAL CORRESPONDENCE.

THE INFLUENCE OF OCCUPATION IN THE CAUSATION OF SKIN DISEASE.

LETTER FROM MR. BALMANNO SQUIRE.

[To the Editor of the Medical Times and Gazette.]

SIR,—One of the expressed purposes of the statistics that are annually collected by the Registrar-General's department is to ascertain what kind and degree of influence is exerted by the various occupations of the British population in the causation of disease. But inasmuch as the returns take cognisance only of such cases of disease as terminate fatally, no information is afforded by them respecting the important class of cases that come under the heading of diseases of the skin.

More definite information on this point than has yet been collected is especially desirable for two reasons—the one being that the subject of the causation of diseases of the skin is to a great extent perfectly unknown ground. That it is so is pretty clear from the great diversity of causes that are found assigned, in the works of various writers of repute, to eruptions which make up so large a bulk of the sum total of cutaneous cases—as, for example, do eczema, psoriasis, pityriasis, lichen, strophulus, acne. The other of the two reasons in view is, namely, that a special influence in the causation of cutaneous disease has from time immemorial (although without any definitely established foundation) been always attributed to certain occupations. Thus, certain forms of impetigo, lichen, eczema, and psoriasis are commonly considered to be the product of special occupations, and this belief is expressed in the terms "grocer's itch," "baker's itch," etc. Like many popular beliefs on Medical matters, it is endorsed by a very general Professional assent—I mean that the term and the conclusion to which it commits the user of it is common not only with those who follow the occupations of baker or grocer, but is also a household word with ourselves.

Under these circumstances, I assume that it would be interesting to your readers if I lay before them statistics which I have compiled with some care from the notes of my charity practice and from those of my colleague, Mr. George Gaskoin, the conclusions expressed in them exhibiting the results arrived at from a year's work. In presenting them, I do not propose expressing any individual opinion as to the correctness of the popular views to which I have alluded, further than by saying that such views, whether existing in the Profession or out of it, have been as often ascertained to be the expression of the collective credulity as of the collective wisdom. Nor shall I profess that the results arrived at in the subjoined tables, although they represent a large number of cases, are to be considered as by any means conclusive. I shall, therefore, refrain from attempting to draw any general conclusions from them; the more so that I think the functions of a collector of statistics and those of a commentator on their results are best kept separate. In short, I will not mar the value of my figures by tacking any theory on to them.

It will be observed that they are absolutely deficient in one important respect: they do not show what particular diseases

of the skin were found to be most distributed amongst particular occupations. I have, of course, the materials for this also at command, but to import this consideration into the matter would involve the always ticklish question of the accuracy of the diagnosis made. Now, the figures as they stand are, as I believe, unimpeachable; they represent the comparative frequency of skin disease (as the term is generally interpreted) amongst the various occupations of the population, as enumerated by the last published census. They do not, by attempting to show too much, impair the confidence they may otherwise lay claim to, and in the form in which they are presented they are capable of correcting and of being corrected by any other observer's investigations of the same subject, since they broach only the broad question of the relative frequency of skin disease of all kinds amongst occupations of every kind. I am, &c., BALMANNO SQUIRE.

9, Weymouth-street, W., February 1.

*** We are sorry that we cannot afford space for Mr. Squire's careful and ingenious tables "Showing the Influence of Occupation in the Causation of Skin Disease," but may state that in Table 1, showing the occupations of men, the comparative liability to skin disease is represented by the following numbers—that is, dividing the census-number of persons engaged in each given trade by the number of applicants at the Hospital, the results are as follows:—Bakers, 1 in 322; carvers and gilders, 1 in 300; cellarmen, 1 in 175; cigar makers, 1 in 360; clerks, 1 in 244; dyers, 1 in 55; gasfitters, 1 in 310; gardeners, 1 in 142; hatters, 1 in 350; jewellers, 1 in 235; leather-cutters, 1 in 51; masons, 1 in 230; musicians, 1 in 350; paperhangers, 1 in 120; school teachers, 1 in 230; shopmen, 1 in 60; tanners, 1 in 290; travellers, 1 in 230; umbrella makers, 1 in 220; warehousemen, 1 in 260; weavers, 1 in 35; wood carvers, 1 in 160; box makers, 1 in 190; fur-workers, 1 in 190; milliners and dressmakers, 1 in 74; needlewomen, shirt makers, and sewing machinists, 1 in 270; shopwomen and assistants, 1 in 43.

[We look upon the numbers as altogether too small to represent the relative frequency of skin disease amongst various classes in London as a whole, but rather of that part of London whence Mr. Squire's patients came. We have erased all occupations which yielded fewer than one case of skin disease for 360 persons; but what we retain shows that Mr. Squire is on solid ground, as is evident from the preponderance of cases of skin disease amongst dyers, amongst bookbinders, hatters, tanners, leather-cutters, weavers, fur-workers, all of whom have to deal with animal products—including musicians, who (if they do not play the bagpipe, and so delight in a national efflorescence) may be said to handle catgut and horsehair.—ED.]

PENSIONS FOR POOR-LAW MEDICAL OFFICERS.

LETTER FROM MR. J. COLVILLE.

[To the Editor of the Medical Times and Gazette.]

SIR,—As Mr. Corrance has kindly promised to introduce a Bill this session for the benefit of Poor-law Medical Officers, and as I believe the President of the Local Government Board will not be unfavourable to any measure that will be of service to them, may I ask Mr. Corrance through your valuable journal to do so as early as possible in this session, that his Bill may not at a later period be shelved. I have been a Poor-law Medical Officer myself, and know something of the unpleasant things Medical men have to submit to; but the position would be much improved if the Medical Officer had a pension to look forward to, and I think that every gentleman who has given up a great portion of his time for twenty years ought to be entitled to claim one, although he may have been engaged in private practice also. I have a friend, about 50 years of age, who finds the work too much for him, and would gladly resign if he had a pension; but as he expects an Act will be passed by-and-bye, he goes on working to the injury of himself, and certainly the poor would benefit by being under a younger man. I believe, myself, that no one should be allowed to hold a Poor-law appointment after 55 years of age, and that a pension should be granted to every man who had served for twenty years, to be graduated according to the time of service, so that his age did not exceed 55.

The guardians of unions generally wish the Government to take the matter up, as they are averse to paying the pension directly out of their rates; and the proper course for the Local Government Board to take would be to get an Act passed enabling them to pay the pensions out of the Consolidated Fund, as they now do half the salaries, and that each parish should be charged a small percentage on their rates as a contribution for keeping up the fund. This arrangement, I believe, would satisfy everyone, and I trust the present session will not pass without its becoming law.

I am, &c., J. COLVILLE.

Sloane-street, February 15.

A REJOINDER FROM DR. DONKIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* of to-day's date the reviewer of my work on "Diabetes and Bright's Disease" has replied to my strictures on his review, which recently appeared in this journal.

In his letter of to-day there is not one single word which is, strictly speaking, a reply to my letter, except a carping over a couple of trifling typographical errors which have escaped correction. It follows, therefore, that the verdict of every impartial reader must be against him on the points at issue between us.

In to-day's issue he censures my book as being quasi-scientific. I must, therefore, carefully analyse and dispose of the only additional evidence he has advanced in support of this opinion.

It never was my intention to cram my book with a lengthened dissertation on the chemistry of the urine, whether healthy or morbid, or to give an elaborate detail of the various methods in use for the detection and estimation of urine-sugar, or to compete with works on Medical chemistry fully embracing this subject. On the contrary, my work being of a purely clinical character, as stated on the title-page, I condensed my observations on this particular point to what is simply *essential* for the use of the Practitioner.

I find, on a reference to the book itself, that I have devoted about two hundred pages exclusively to the subject of "diabetes," but only four of these are devoted to the examination of diabetic urine. It appears to me, therefore, not a little remarkable that "Reviewer" has restricted himself, almost exclusively, both in his critique and in his reply to-day, to what I have already shown, and shall now further show, to be a few misrepresentations of what is contained in these four particular pages only, instead of entering into a philosophical analysis of the numerous propositions I have advanced, and questions I have argued, in relation to the symptoms, pathology, natural history, and treatment of diabetes. These certainly are the subjects towards which we ought to direct our concentrated attention, in order to obtain a more definite and accurate acquaintance with, and a more powerful control over, this mysterious and formidable disease. To obtain this knowledge is infinitely more important than wasting time in idle arguments on a subject now so perfect and well understood as the examination of diabetic urine. But the mind of "Reviewer" seems to be incarcerated within the precincts of the laboratory, and unable to appreciate the value of clinical investigation, observation, and experiment. He has only advanced one argument, or rather quasi-argument, against my work; this I shall now dispose of, and then I am done with him.

In referring a second time to the detection of urine-sugar, he quotes from my book *a portion of a sentence only*, suppressing the remainder, which conveys my meaning of the whole. Thus, he observes that I teach that specific gravity, taken in conjunction with quantity, supplies "a very reliable guide as to the quantity of sugar voided in any particular case of disease." This, he says, is a guide on which I seem exclusively to have relied. But why suppress the remainder of the sentence, which is continued thus: "and an index by which we can safely predicate whether the quantity is *small* or *large*; but when it is considered necessary to determine the *exact* quantity of sugar in any given case, we must have recourse to a more definite procedure." Surely this is plain enough; and in the next two sentences I recommend, for this purpose, the polarising saccharometer of Soleil as the simplest and most ingenious method of examination. The assertion of "Reviewer," that I have relied exclusively on specific gravity, in conjunction with quantity, in the estimation of sugar, is followed by the irreconcilable imputation that I rely on specific gravity alone; and, moreover, to show me that this is an unsafe guide, I am referred to the lectures of Dr. Bence Jones on Pathology (which, I assure him, I have carefully studied)—as

if I had stated anything contrary to a fact so well known to every Medical student.

Now, in reply to the whole of this misrepresentation, I must observe that, if "Reviewer" will examine several tables and observations contained in my work, he will find that I have demonstrated that specific gravity alone is no indication of the presence of diabetic sugar, and that the urine may be saccharine even when its density is below 1010°. But the quantity and specific gravity of the urine, when taken in combination, afford a most valuable clinical index of the severity of the disease, and a means of closely approximating, though not of exactly determining, the quantity of sugar voided in any given case of diabetes. To this everyone will bear testimony who has had much clinical experience of this affection. Hence the table constructed by Dr. Henry, and carefully corrected by the painstaking sagacity and ample experience of the late Dr. Prout. It was from this table, published in the latest edition of Dr. Prout's work "On Stomach and Renal Diseases," p. 26, that I roughly estimated the quantity of urine-sugar voided in the first two cases only subjected by me to the skim-milk treatment, and published in the *Lancet* so far back as October 23, 1869, and recently included in my work. But it is necessary for me to state that all the subsequent estimates of the quantity of urine-sugar given in my book are the result of accurate and careful examinations.

I am, &c.,

February 10. A. T. Donkin, M.D.

BALSAM OF COPAIBA IN SMALL-POX AND SCARLATINA.

Letter from Dr. A. Rowand.

[To the Editor of the Medical Times and Gazette.]

Sir,—I should feel obliged by insertion in your journal of the following remarks on the treatment of small-pox and scarlet fever by balsam of copaiba:—From our knowledge of the effects of the balsam on the skin and mucous membranes, I was induced to try it, in four- or five-drop doses, mixed in ʒij. syrup, and ʒij. mucilage of gum arabic, three or four times a day, in the confluent small-pox of a person who had never been vaccinated. It caused no nausea, but, on the contrary, created a keen appetite, which continued till recovery. No pitting took place, and no local application was used but glycerine and water. I tried the same mixture in scarlet fever, with most satisfactory results. Under its use, the tongue and sorethroat got rapidly clean and well, followed by a keen appetite, and by none of the usual sequelæ. The secretion of urine was copious, and began to increase in quantity after two or three doses. At first it was of the colour of ale and a little ropy, but by the third day quite clear and normal. My theory of the action of the remedy is, that it alters or destroys the character of the virus, and eliminates it out of the system by the skin and kidneys more particularly; for the recoveries have been unusually rapid. In both cases I prescribed milk, beef-tea, wine, and spirits, according to need.

I am, &c., A. Rowand, M.D.,

Visiting Physician and Surgeon to the Marine and Emigrant Hospital, etc., Quebec.

61, St Louis-street, Quebec, January 26.

ELIMINATION IN SMALL-POX.

[To the Editor of the Medical Times and Gazette.]

Sir,—Without desiring to reopen the question of Dr. Johnson's pathology of cholera, one can hardly allow the publication of his last utterance to pass unnoticed, inasmuch as, in the portion of his paper devoted to treatment, a general pathological principle is enunciated at variance with what is generally taught nowadays in our Medical schools. The West Kent Medico-Chirurgical Society were therein instructed that "the main principle to bear in mind is, that the discharges are as essentially curative as is the cutaneous eruption of small-pox." One really would like to know Dr. G. Johnson's method of treating small-pox. Are the patients at King's subjected to the humorous and humoral treatment of closed doors and windows, roaring fires, red blankets, red curtains, hot drinks, *et hoc genus omne* of former days? Surely they ought to be, if the Professor believes his own eliminative theory. If we are at all correct in our classification of the fevers, the Professor can hardly object to the following amplification of his statement:—"The discharges of typhoid are as essentially curative as the cutaneous eruption of small-pox, the cutaneous and pharyngeal symptoms of scarlet fever, and the membranous infiltrations in diphtheria, etc." But to confine ourselves to the presumed analogy with small-pox. Does anyone besides Dr. Johnson believe that the eruption of small-pox is essentially curative? Some ten years ago, at least, we used to be taught that the eruption was one of the phenomena of the disease, just like the pain in the back, vomiting, pyrexia, etc., and *not* the phenomenon of the familiar Daimon, Nature, doing her best to expel the offending virus by the skin. If anything is to be done with the eruption, the principle rather should be to limit it by free ventilation and light clothing; for it is an undoubted fact that the intensity of the disease corresponds with the diffuseness of the eruption. In a case of severe confluent variola, think what a large abscess would be formed were all the pus collected at one place, the severity of the secondary fever depending largely upon the immense formation and septicæmic nature of the pus! And yet we are asked to believe that this is essentially curative.

I should not have ventured to criticise such a distinguished member of the Profession had anyone else taken up the gloves, but I cannot find any comment upon this antiquated pathology in this week's issue. I am, &c., M. B.

A MODEL SELF-SUPPORTING DISPENSARY.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your article on "The Evils of Provident Dispensaries," in your last week's issue, induces me to give you the outlines of a scheme which I have personally carried out for the last five years with great success. My connexion with several "societies" which had their head-quarters at Liverpool, Dudley, Lichfield, Birmingham, etc., but which were carried on by local agents in this neighbourhood, led me to adopt my present scheme, in consequence of the flagrant impositions which came under my notice almost daily.

The collectors were sometimes irregular in their payments to me; at other times I found out certain persons had been paying into the society some time before I was made aware of the fact; I consequently lost the benefit of their payments in the interval between the quarters. The collectors also assumed to themselves a position of considerable importance, while one or two of the societies collapsed, leaving the unfortunate members in the lurch. Members did not much like the fortnightly visits of these collectors; and I did not see why the Doctor should get but 3s. per annum, when the members paid 4s. 2d.

These collectors, anxious to increase their percentage of income, took in many persons who were in a position to pay for their Medical attendant in the ordinary way, while the Doctor was powerless, and was never consulted as to admissions or rejections. These and many other circumstances induced me to give up my connexion with these societies altogether, and I determined to have a dispensary of my own. After some consideration, I framed the following set of rules, which have worked very well, and given no trouble whatever:—

1. Subscriptions of members of this Dispensary must be paid in advance, and benefits do not commence till one month has elapsed from date of entrance.

2. Benefits do not include month of confinement, diseases of pregnancy, enthetic disease, or Surgical dentistry.

3. Any member wishing to withdraw from the Dispensary must give six months' notice of that intention.

4. Members must find their own bottles, leeches, trusses, instruments, bandages, etc.

5. If any member requires medicine or attendance while the subscription is in arrears, the same will be charged for in the ordinary way.

6. Members are requested to attend at the surgery from nine to ten o'clock in the morning; and if they require to be visited at their own homes, they will prevent delay or disappointment by sending their messages, if possible, before nine o'clock in the morning, so that arrangements may be made.

These rules are not publicly advertised, and the Dispensary relies for publicity upon its members. Each member or household has a small memorandum-book, in which are entered these rules, the names of the subscribing members, and the dates of their payment, and when the next payment is due. The subscription is 3s. per head per annum, and the money is brought to the surgery the day upon which it is due by the members or some person on their behalf. A charge of 3d. is made at the time of entering for the small book and the entrance. Half a year's payment in advance is generally made, though a dis-

cretionary power is exercised in the case of very poor persons, so as to make it in their case a quarter's payment in advance, especially where a large family are members.

The month of accouchement is not included, for obvious reasons, and the diseases of pregnancy refers only to miscarriage and abortion. Enthetic disease and Surgical dentistry are optional matters, so far as I am concerned, and thus I am able to charge for attendance in some special cases of syphilis, secondary or tertiary. In cases of fracture I make a small charge for bandages and the use of splints. Other matters connected with the remaining rules speak for themselves.

By these means I am enabled to refuse admission to any person who I think is in a position to pay as a private patient. The members generally pay regularly and punctually, and, as they bring their payments to the surgery, it causes little trouble.

I thought these few facts might assist some Practitioners who wish to start something of this sort, and there may be many like myself, who do not care much for their connexion with these collecting societies. I shall be glad to reply to any question which I may not have sufficiently explained.

I am, &c., JUNIUS MEDICUS.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THURSDAY, FEBRUARY 8.

Dr. DRUITT, President, in the Chair.

A SPECIAL meeting was held to hear a paper from Mr. W. Acton on the question, "Whether the Contagious Diseases Acts shall be Repealed, Continued, or Extended to the General Population?" founded on the minutes of evidence lately given before the Royal Commission.

Mr. ACTON said, it was first necessary to define a "prostitute." The police took it to mean a woman residing in a brothel, or soliciting in the public streets, or who was informed against. Before taking action, the police required not simply one, but several proofs combined. There was thus little danger of respectable women being molested. The Commission, in fact, admitted that the police had discharged their duties with moderation and caution. He (Mr. Acton) next described the condition of the prostitutes in London and large towns as terribly diseased and degraded. They infected the men of the army and navy, and under the voluntary system did not present themselves at Hospitals until the evil had gone to extreme lengths, and they left before they were cured. He (Mr. Acton) regretted that the Commission had not taken evidence as to the prevalence of venereal disease among the civil population, as one-half of the out-cases at Hospitals were of this character. Another regrettable omission was the absence of any comparison between the British and foreign armies. This deficiency he endeavoured to supply from statistics obtained by himself, and showed that there was much less disease in Paris and Brussels. Mr. Acton next gave a succinct history of the Contagious Diseases Acts, which were first applied to the peculiar conditions of the army and navy. The marked diminution in the more serious forms of disease where the Acts had been introduced was shown by statistics; also that there was now less public solicitation, and that it had been the means of reclaiming women from their evil courses. Formerly, at Plymouth, girls as young as 13 were found in houses of ill-fame, whereas now there was not one known under 17. Allusion was next made to the formidable resistance raised against the Acts, which had led Parliament to refer the whole question to a Royal Commission, and this had given birth to the present report and minutes of evidence. Mr. Acton replied *seriatim* to the objections most worthy of notice. He said that, did he believe that the Contagious Diseases Acts had an immoral tendency, he would give them up, at once and for ever, notwithstanding the value he set upon them on sanitary grounds. Even Mrs. Butler admitted that fallen women could not be left as they were. She was in favour of providing Hospital accommodation for them, and would detain them, not by legal compulsion, but by Hospital regulations. That the examining of prostitutes was not repulsive to the women was evident from the fact that they flocked to Hospitals, where exposure was greater, in preference to being treated privately at home. The recommendation of the Committee, that the periodic examination of the women should be discontinued, Mr. Acton looked upon as evidently a compromise among the members of the Commission. In conclusion, Mr. Acton hoped that forthcoming legislation would not undo the good that had been effected, but would extend it.

A vote of thanks was accorded to Mr. Acton for his able, careful, and temperate paper.

Dr. DRYSDALE would propose that the State should provide voluntary accommodation for venereal patients, as it now did for scarlet fever, small-pox, and other infectious diseases. He would allow a divorce to wives who had been infected by their husbands.

Mr. HOLLAND said that it was not essential that the examination should be made by men; it might very well be left to women. It was not giving the women a certificate that they were safe.

Dr. MOUAT said, in reply to one of the previous speakers, that India was no more under martial law than England. The Act had been worked in Calcutta with good results. Colonel Playfair had told him that at Aden, also, the system had eradicated syphilis. He was, however, of opinion that no legislation should be imposed until the people had been educated up to it. He would like to see a compromise agreed upon, and leave the rest to the march of time.

Dr. GIBBON said that a compulsory system of dealing with lewd women had long been in force at Cambridge. They were sent to the "Spinning House," which had been set up from funds left by Hobson, the famous horse-dealer, whose "choice" had passed into a proverb.

Mr. MILTON thought it shameful that innocent women and children should be allowed to suffer from a disease which might be exterminated if prostitutes were submitted to examination.

Dr. WEBSTER was opposed to any extension of the Acts to the civil population, for in Paris the system left a very large amount of disease still rife, and was a great incitement to immorality.

Mr. DEAKIN maintained that, by the old law of the country, the police had power over prostitutes, and that by the Contagious Diseases Acts this power was restricted and surrounded with special precautions.

The CHAIRMAN said it was satisfactory to find that the advocates of the Acts were conceding the points which had been urged against them on the ground of morality. Under certain aspects the examination was disgusting. But it was shown from the evidence that the authorities were not content with physical treatment, but also supplied the women with means of escape from their disgraceful trade. It appeared beyond doubt that these Acts had had a beneficial moral result; that was enough. It might be considered a national disgrace that prostitution had been allowed to go such lengths, and that it was now repressed, not on account of its own horrible nature, but because of the disease it happened to bring with it; still, it was repressed, and that was enough for the present. He admitted there had been on his part—he would not say a change of opinion, but a change of front on this subject.

Mr. ACTON hoped the progress of opinion made during the last twelve months would continue. He should like to see all parties joining hands. The great amount of disease in Paris was among those whom the system did not reach, and who brought disease and vice to that city from every part of the world.

OBITUARY.

CHARLES TOWNSEND, M.R.C.S., &c.

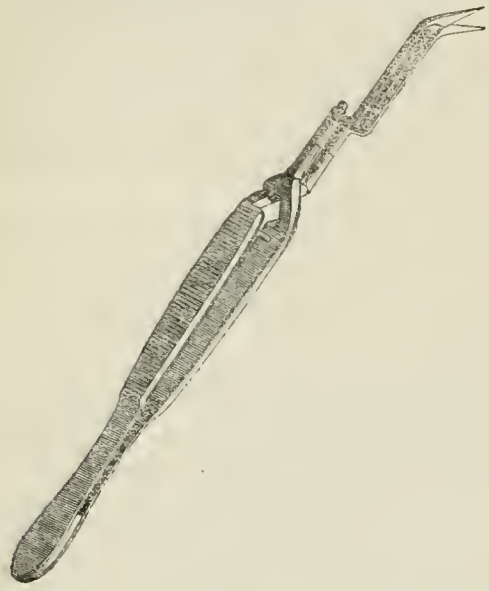
WE record with deep regret the death of the above Surgeon, which occurred at his residence, Pakenham-road, Edgbaston, on the 29th ultimo. Mr. Townsend entered the Profession as a pupil to Mr. Pye Chavasse; he was afterwards a student at University College. He became a Member of the College of Surgeons and a Licentiate of the Apothecaries' Society in 1844. Soon afterwards he obtained the appointment of Resident Surgeon-Accoucheur to the General Dispensary, which office he held for three years. On relinquishing this appointment, Mr. Townsend commenced general practice, and was elected as one of the Honorary Surgeons of the Birmingham and Midland Eye Hospital. He was a skilful operator; he was kind and courteous to his colleagues and the officers of the Hospital, and was greatly esteemed by his patients and a large circle of friends. He was married in 1854, and has left a widow and four children.

NEW INVENTIONS.

FORCEPS SCISSORS FOR OPHTHALMIC SURGERY.

By CHARLES HIGGENS, F.R.C.S.,
Assistant-Surgeon to the Central London Ophthalmic Hospital.

The idea of these scissors was first suggested to me by Mr. Baker. The handle of the instrument is like that of a pair of ordinary forceps, but the two sides cross each other. The cutting blades are placed at an obtuse angle with the handle, and work upon a rod-pivot placed between the shanks of the blades. The blades are open when the instrument is not in use, and are closed by pressing the handle between the finger and thumb, in the same manner as forceps are closed.



Originally, the instrument was made for dividing those thick portions of opaque capsule sometimes left after operations for cataract, which are too tough to be torn through with needles, and the removal of which with forceps is attended with so much danger to the eye. It will be found useful, too, for cutting the iris in iridectomy and for enlarging corneal incisions. As the action of the scissors is quite simple, the necessity of those awkward back-handed positions is obviated. The inconvenience of these positions every ophthalmic Surgeon must have experienced occasionally in using ordinary scissors. The instrument is made by Messrs. Krohne and Sesemann, Duke-street, Manchester-square.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 8:—

Dobie, Stanley Locker, Irthington, Carlisle.
Jackson, Francis Edward, Chertsey, Surrey.
Stoney, Percy Butler, St. Bartholomew's Hospital.

The following gentlemen also on the same day passed their first Professional examination:—

Dalton, Charles Bernard, Guy's Hospital.
Morton, Albert Samuel, London Hospital.
Walker, William Newman, University College.

UNIVERSITY OF DUBLIN.—TRINITY COLLEGE.—The following gentlemen have passed the examination for the degree of Bachelor of Medicine, held on the 6th and 7th inst.:

Browne, Valentine E.	Mease, Andrew Leslie.
Elliott, Charles N.	Thornhill, Hayman.
Kelly, Thomas J.	Walsh, Samuel.
Maddock, William.	Woodhouse, Stewart.

At the examination for the Mastership in Surgery, held on the 9th and 10th inst., but one candidate passed—

Ferguson, William Claudius.

At the Spring Commencements, held in the Examination Hall of Trinity College on Shrove Tuesday, the following degrees in Medicine and Surgery were conferred:—

Baccalaurei in Medicinâ.

Elliott, Carolus Nelson.	Thornhill, Hayman.
Maddock, Wilhelmus.	Walsh, Samuel.
Mease, Andreas Leslie.	Woodhouse, Stewart.
O'Farrell, Nicolas Sweetman.	

Magister in Chirurgiâ.
Ferguson, Wilhelmus Claudius.

Doctores in Medicinâ.
Pradshaw, Wilhelmus Hanna Delamaine.
Nason, Johannes Wilhelmus Washington.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BRIGSTOCKE, CHARLES ARTHUR, M.R.C.S., L.S.A.—Medical Officer and Public Vaccinator for the Calne Union.

DUNSMURE, JAMES, jun., M.D., F.R.C.S.E.—Extra-Physician to the Meadowside House Royal Hospital for Sick Children.

PLAYFAIR, WILLIAM, M.D. Edin., F.R.C.P. Lond., F.R.C.S.—Physician-Accoucheur and Physician for Diseases of Women and Children at King's College Hospital, Lincoln's-inn-fields.

POORE, GEORGE VIVIAN, M.D. Lond., M.R.C.P. Lond.—Assistant-Physician to Charing-cross Hospital, *vice* Alexander Silver, M.D. Univ. Aber., M.R.C.P. Lond., promoted to Physician.

RIX, BENJAMIN, M.R.C.S.E., L.S.A.—House-Surgeon to the Infirmary, Tunbridge Wells.

MILITARY APPOINTMENTS.

MEDICAL DEPARTMENT.—Assistant-Surgeon Alexander Minty, M.B., from the Rifle Brigade, to be Staff Assistant-Surgeon, *vice* Brodie Cruickshank, M.B., appointed to the 80th Foot; Assistant-Surgeon George Ryan, from the 19th Foot, to be Staff Assistant-Surgeon, *vice* William Francis Burnett, appointed to the 68th Foot.

RIFLE BRIGADE.—Surgeon-Major Alexander Scott Fogo, M.D., from the Royal Artillery, to be Surgeon, *vice* Augustus Patrick Meyers Corbett, M.D., who exchanges.

ROYAL ARTILLERY.—Surgeon Augustus Patrick Meyers Corbett, M.D., from the Rifle Brigade, *vice* Surgeon-Major Alexander Scott Fogo, M.D., who exchanges.

ROYAL MALTA FENCIBLE ARTILLERY.—Surgeon Ludovico Bernard, M.D., to be Surgeon-Major.

BIRTHS.

ARGLES.—On February 8, at Hermon Lodge, Wanstead, the wife of Dr. Argles, of a daughter.

COATES.—On February 5, at Montpellier House, Great Malvern, the wife of F. W. Coates, M.D., of a son.

FAUGHT.—On January 6, at Morar, Gwalior, India, the wife of J. G. Faught, Staff-Surgeon, of a daughter.

KIDD.—On February 13, at 23, Northbrook-road, Lee, S.E., the wife of Leonard Kidd, M.B., Surgeon Army Medical Staff, of a daughter.

PEARLESS.—On February 14, at The Vicarage, Sevenoaks, the wife of Chas. D. Pearless, M.R.C.S., L.R.C.P., of a son.

SMITH.—On February 6, at 68, Harley-street, W., the wife of Dr. Gilbart Smith, of a daughter.

SNELL.—On February 13, at 8, Castle-gate, Nottingham, the wife of Enoch Snell, Surgeon, of a daughter.

MARRIAGES.

ARCHER—NASH.—On February 8, at Royston, Herbert Ray Archer, M.B., son of Wm. Archer, F.R.C.S., of Boyne-terrace, Notting-hill, to Georgiana, daughter of the late Wm. Thos. Nash, Esq., of Royston.

COLLET—LAMB.—On February 8, at St. Stephen's Church, Bayswater, Henry, second surviving son of Henry James Collet, M.D., Worthing, to Agnes, eldest daughter of Robert Boyd Lamb, Esq., 45, Prince's-square, Bayswater, late H.B.M. Consul, St. Thomas, W.I.

EARLE—MACDONALD.—On February 8, at St. Peter's Church, Southampton, Nathaniel Earle, M.A., M.B., of The Soke, Winchester, to Annie Augusta Hay, only daughter of Dr. Donald Macdonald, Bengal Medical Service.

HEUDE—ROUGHTON.—On February 8, at St. James's, Paddington, William Wentworth Heude, M.D. Edin., Surgeon-Major H.M. Madras Army (retired list), and only son of the late Captain William Heude, 46th Madras N.I. (H.E.I.C.S.), to Emily Wood, fourth daughter of James Roughton, Esq., late of Barrow-upon-Soar, Leicestershire.

LELAND—COLLETT.—On February 8, at the parish church, Charmouth, J. S. Leland, M.D., of Kirkby Stephen, Westmoreland, to Nannette Emma, eldest daughter of Henry Collett, Esq., of Richmond, Surrey.

TURNER—DUKE.—On February 12, at St. Mary-in-the-Castle, Hastings, Richard Turner, Surgeon, Lewes, to Elizabeth Blackman Duke, eldest daughter of the late Walter Duke, Surgeon, Hastings.

WALKER—HINDLEY.—On February 8, at St. Stephen's Church, Shepherd's-bush, Joseph Walker, M.D., of 22, Grosvenor-street, to Isabel Phœbe, youngest daughter of the late Charles Hindley, Esq., of East Acton, Middlesex.

DEATHS.

BEEVOR, CHARLES, F.R.C.S., at 129, Harley-street, on February 8.

BRADBURY, BECKETT, M.D., at his residence, Huddersfield-road, Oldham, on February 1, aged 48.

BREWER, ELLEN GERTRUDE, youngest daughter of Alexander Brewer, Surgeon, of Ebbw Vale, Monmouthshire, at 201, Queen's-road, Dalston, on February 8, aged 16.

EVANS, KATHERINE BIDDONE, relict of the late Thomas Evans, M.D., formerly of Stockwell-park House, Surrey, at her residence, Rumsey House, Kidmelly, on February 10.

JONES, JOHN, Surgeon, at Tir Bach, near Swansea, on February 5, aged 48.

RODEN, ROSEHANNAH MARY, the wife of William Roden, M.D., F.R.C.S., at Morningside, Kidderminster, on February 1, aged 50.

WILLEY, EDITH, the dearly beloved wife of Henry Willey, M.B., of Bromley, Kent, at Winchester, on February 7, aged 23.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRKENHEAD BOROUGH HOSPITAL.—Assistant House-Surgeon. Candidates must be registered Medical Practitioners. Applications to the Chairman of the Weekly Board, on or before February 26.

BIRMINGHAM QUEEN'S HOSPITAL.—Resident Physician and Medical Tutor. Candidates must be Graduates in Medicine of a University of Great Britain or Ireland. Applications, with diplomas and testimonials, to Mr. H. C. Burdett, on or before March 22.

BLOOMSBURY DISPENSARY.—Resident Medical Officer. Must be duly qualified. Applications to the Secretary, on or before February 17. Election on the 19th.

KENT AND CANTERBURY HOSPITAL.—Dispenser and Assistant House-Surgeon. Must be duly qualified and registered. Applications to Mr. T. Southee, on March 15. The duties will commence on March 31.

KING'S COLLEGE.—Assistant Physician for Diseases of Women and Children. Applications to Mr. J. W. Cunningham, Secretary.

MARGATE ROYAL SEA-BATHING INFIRMARY.—Resident Surgeon. Must have some legal qualification to practise. Applications to the Secretary, on or before February 29.

MIDDLESEX HOSPITAL, W.—Physician. Full particulars may be obtained upon application to Mr. H. M. Evans, Secretary-Superintendent, on or before February 20.

NORTH WALES COUNTIES LUNATIC ASYLUM, DENBIGH.—Assistant Medical Officer. Must be duly qualified and registered. Applications and testimonials to Mr. John Robinson, Clerk to the Visitors, on or before February 20.

SALOP AND MONTGOMERY COUNTIES LUNATIC ASYLUM.—Medical Superintendent. Must be duly qualified to practise Medicine and Surgery. Applications and testimonials to the Clerk to the Visitors, on before March 1.

VICTORIA HOSPITAL FOR CHILDREN, GOUGH HOUSE, QUEEN'S-ROAD, CHELSEA.—Assistant-Surgeon. Must be F. or M.R.C.S.E., and not practising pharmacy. Applications to the Secretary, on or before February 28.

WEST KENT GENERAL HOSPITAL, MAIDSTONE.—Physician. Must be duly qualified. Applications and testimonials to the Secretary, on or before February 19. Election on February 27.

WESTMINSTER GENERAL DISPENSARY, GERARD-STREET, SOHO, W.—Hon. Surgeon. Must be F. or M.R.C.S.E., not practising pharmacy or midwifery. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTMINSTER GENERAL DISPENSARY.—House-Surgeon. Candidates must be duly qualified and registered. Applications and testimonials to the Secretary, on or before February 19. Election on the 22nd.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. M. Norris, on or before March 1. Election on the 7th.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Caxton and Arrington Union.—Mr. Thomas G. Brook has resigned the First Caxton District; area 12,217; population 2400; salary £68 5s. per annum.

Chorlton Union.—The Sixth District is vacant; salary £90 per annum.

West Derby Union.—Mr. John S. Gratton has resigned the Walton District; area 8949; population 5717; salary £50 per annum.

APPOINTMENTS.

Ashbridge Union.—Alworth M. Bayliffe, M.R.C.S. Eng., L.S.A., to the Eleventh District.

Driffield Union.—Wm. Wood, M.R.C.S. Eng., L.S.A., to the Middleton District.

East Preston Union.—Cleveland Smith, M.R.C.S. Eng., L.S.A., to the Broadwater District.

Manchester Township.—J. F. W. Tatham, L.R.C.P. Edin., L.F.P. & S.Glas., to the St. Michael's District.

Newark Union.—Richard H. Dawson, M.R.C.S. Eng., L.S.A., to the Clifton District.

New Winchester Union.—Julian Willis, M.R.C.S. Eng., L.R.C.P. Edin., to the Third District.

Rothbury Union.—James M. Pringle, M.R.C.S. Eng., to the Whittingham District.

St. Pancras Parish.—Ferdinand A. Purcell, M.D. Queen's Univ. Ire., M.R.C.S.E., to the Seventh District.

DR. W. L. PLAYFAIR has been appointed Professor of Midwifery at King's College, and Senior Obstetric Physician in King's College Hospital, vacant by the retirement of Dr. Priestley.

DR. WIMBERLEY has been appointed Physician and Surgeon to the Coventry General Hospital.

THE cholera still continues in St. Petersburg and Revel.

THE Bethnal-green Board of Guardians have resolved to appoint an officer for the enforcement of the vaccination laws in the parish.

A DEPUTATION from the Thames Shipping Inspection Committee, accompanied by Dr. Dickson and Dr. Letheby, have had an interview with the President of the Local Government Board, and urged that in the Public Health Bill the port of London should be constituted a distinct sanitary district, and that power should be given to the authorities to raise money for a systematic supervision of the shipping.

THE Royal Artillery Hospital at Cannanore, by order of Lord Napier, is to be closed, and the establishment discharged from the date of the removal of the E Battery, 20th Brigade. The Artillery sick, in future, are to be treated in the Hospital of the European infantry regiment stationed at the same cantonment. This is the fourth regimental Hospital that has been closed during the past twelve months.

MR. CHARLES R. ROWE, late Medical Officer to the Wimborne Division of the United Patriots National Benefit Society, has been presented with an illuminated address, a very handsome chased silver inkstand, and a massive silver pencil and penholder, in recognition of the very efficient way in which he had discharged his duties in connexion with the Society for a number of years.

A PETITION to Parliament, signed by 106 Physicians, Surgeons, and general Practitioners of Liverpool, was presented to the House of Commons on Tuesday, praying that the Contagious Diseases Acts of 1866 and 1869 may be immediately repealed, and that no future legislation may be enacted on the subject, which, whether by registering prostitutes, providing for the compulsory examination of women, or otherwise, shall recognise prostitution as a necessity.

AT a public meeting held at the Town Hall, Durham, the Mayor in the chair, Mr. John Pratt, Surgeon, was presented with a testimonial, consisting of a gold centre-seconds stop watch and appendages, and a purse of gold, for his public services to the poor during the prevalence of the late outbreak of small-pox.

ROYAL COLLEGE OF PHYSICIANS.—The following lectures of the present year will be delivered at the College, Pall-mall East, on each of the following Wednesdays and Fridays, at five o'clock:—Goulstonian Lectures, by Dr. Hensley, "On the Mechanism of Respiration, Circulation, and Digestion," on February 23, 28, and March 1; Croonian Lectures, by Dr. Bristowe, "On Disease and its Remedial Treatment," on March 6, 8, and 13; Lumleian Lectures, by Dr. Quain, "On the Diseases of the Muscular Walls of the Heart," on March 15, 20, and 22.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—SESSION 1871-72.—The next meeting will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday (this day), February 17, at 7.30 p.m., Robt. Druitt, M.R.C.P. Lond., F.R.C.S., President. Dr. MacCormack, Medical Officer of Health for Lambeth, will be balloted for as an Ordinary Member. Mr. Sneade Brown, of 28, Oxford-square, Hyde-park, will be balloted for as an Associated Member. Dr. Albert J. Bernays, Professor of Chemistry, St. Thomas's Hospital, will read a paper on "The Precautions which should surround Toxicological Investigations in Medico-legal Cases, and on Evidence in Courts of Law."

THE MURDER OF TALBOT IN DUBLIN.—IT may be interesting to some of our readers to learn that, at the Commission of Oyer and Terminer, on February 9, Robert Kelly, the hero of the recent deplorable miscarriage of justice in Dublin, whose first trial assumed such unexpected Medico-legal features, was tried for shooting at Head-constable Mullins with intent to murder, and was found guilty. Mr. Justice Morris sentenced the prisoner to fifteen years' penal servitude, and in passing sentence took occasion to remark that it was owing only to Providence that he was not on his trial for actual murder. If the policeman had died, the Court said the learned judge would have had no option but to sentence him to death.

HEALTH OF SCOTLAND.—3174 deaths were registered in the eight principal towns during January, of whom 1607 were males and 1567 females. Allowing for increase of population, this number is 121 above the average number for the month of the last ten years, and is the highest number recorded in January since the commencement of the Registration Act. A comparison

of the deaths registered in the eight principal towns shows that during January the annual rate of mortality was 23 per thousand persons in Perth, 31 in Paisley, 33 in Glasgow, 34 in Greenock, 36 in Edinburgh and in Aberdeen, 45 in Dundee, and 46 in Leith. Of the 3174 deaths registered, 1178, or 37 per cent., were of children under 5 years of age. In Perth 18 per cent. of the persons who died were under 5 years of age; in Paisley, 29 per cent.; in Edinburgh and in Dundee, 32; in Leith, 36; in Aberdeen, 37; in Glasgow, 41; and in Greenock, 44 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 1039 persons, thus constituting 32 per cent. of the mortality. This rate was exceeded in Edinburgh, Dundee, and Leith from the prevalence and fatality of small-pox, and in Aberdeen from small-pox and measles combined. Small-pox appears to be still on the increase, the number of deaths from that cause having risen from 354 during December to 461 during January. The deaths from small-pox therefore constituted 14·5 per cent. of the whole mortality for the month. In Leith 39·5 per cent. of the deaths were caused by small-pox; in Dundee, 36·3; in Edinburgh, 24·4; in Perth, 18·0; in Aberdeen, 15·2; in Paisley, 2·3; and in Glasgow 1·9 per cent. No deaths were recorded from that disease in Greenock.

THE following is a list of Medical candidates of H.M.'s British Army who were successful at the competitive examinations held at London in August, 1871, and at Netley in February, 1872, after having passed through a course at the Army Medical School, Netley:—

Order of merit	Names.	Studied at	Total No. of marks.
1.	Cottle, E. W.	Oxford and London	5118
2.	Ash, R. V.	London and Aberdeen	4625
3.	Connolly, P. S.	Dublin	4510
4.	Dwyer, C. E.	Dublin	4447
5.	Rogers, J. G.	Dublin	4445
6.	Fasken, W. A. D.	London	3993
7.	Connolly, B. B.	London	3927
8.	Edge, J. D.	Dublin	3866
9.	Barrow, F. E.	London	3837
10.	Blood, R.	Galway and Dublin	3797
11.	Barrow, H. J. W.	London	3703
12.	Bridges, W. P.	London	3695
13.	Drury, R.	Galway and Dublin	3694
14.	Grant, W. C.	Dublin	3654

THE following is a list of Naval Medical candidates who were successful at the competitive examinations held at London in August, 1871, and at Netley in February, 1872, after having passed through a course at the Army Medical School, Netley, and who have received commissions as Assistant-Surgeons in her Majesty's Navy:—

Order of merit.	Names.	Studied at	Total No. of marks.
1.	Nixon, F. A.	Dublin	4471
2.	Anderson, J. H.	Belfast	4451
3.	Chittenden, C. P. D.	London	4385
4.	Davidson, C.	Aberdeen	4155
5.	Drew, W. B.	Dublin	3821
6.	Elmes, W. H.	Dublin	3650
7.	Gray, C. E.	Dublin	3620
8.	Feltham, C.	London	3460
9.	White, W. R.	Dublin	3455
10.	Brown, R. G.	Aberdeen	3443
11.	McCarthy, J.	Cork	3342
12.	Sandys, W. C.	Dublin	2945
13.	Gray, G. J.	London	2915
14.	Levinge, H. M.	Dublin	2890
15.	Brereton, R. W.	Dublin	2473
16.	Simms, J.	Belfast	2468
17.	Donovan, J.	Dublin and Cork	2300

STRYCHNIA IN VOMITING.—M. Debauge observes that although nux vomica and strychnia have been employed in the treatment of various affections of the digestive organs, he is not aware of any account of strychnia being used for the relief of obstinate vomiting occurring in hysteria, pregnancy, suppressed menses, and disease of the uterus. This form of vomiting is dependent for the most part on asthenia, and occurs in debilitated subjects; and sometimes, after resisting all sedative remedies, it is arrested by the impression made on the gastric mucous membrane by stimulant drinks. In obstinate cases, however, these do not suffice, and then strychnia becomes a valuable remedy, and may be to this end administered endermically and hypodermically.—*Lyon Médical*, January 7.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Questor.—The subject of the lines by "Martialis Junior" is not one that we can admit into our columns.

Fox's Palatable Cod-liver Oil with Quinine.—A Medical correspondent, who has derived great benefit from this preparation, asks us to make the fact public, and recommend it to such of our readers as may (themselves or their patients) be suffering from debility and imperfect nutrition.

Hoffmann's Anodyne, or, as we now call it, the spiritus aetheris sulphurici *compositus*, contains some ethereal oil, in addition to sulphuric ether and alcohol. It was invented by the celebrated Frederick Hoffmann, Professor at Halle, who called it his *mineral anodyne liquor*.

American.—Between the claims of Morton and of Jackson to the credit of the discovery of the anæsthetic properties of ether inhalation, we feel it impossible to decide. At first we believed Morton was the man; subsequent evidence induced us to give our vote to Jackson; and there we stop. Both evidently worked in common, and drew their suggestions from the same facts.

MEDICAL EVIDENCE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Since communicating with you on this subject, a singular confirmation of my remarks has been made by Baron Martin, in the case of Christiana Edmunds. He said: "A poor woman, by the way, was seldom afflicted with insanity, but it was common to raise a defence of that kind when people of means were charged with the commission of crime. He had heard a Doctor say 'that all mankind were mad, more or less; but that had little to do with the case under consideration.' The state of mind which excused crime was well fixed in our law; there were many diseases of which the mind was liable as well as the body. There was the idiot who was born without any mind whatever. Again, there was the raving madman; and if he had a homicidal tendency, he would be no more responsible than a tiger. But the most numerous cases of the kind were of persons subject to delusions."

As in the case of the idiot the judge has mentioned, which shows how the law was framed, mind was then considered as an abstract principle, independent of brain function. If it is the law, so much the worse for the condition of the law, as it proves incontestably that such a law must have been made during a period of entire ignorance as to the true function of the brain during health and disease. The sooner such a law is remodelled in conformity with our increased knowledge on a subject of such vital importance as the abnormal conditions of brain function shown in insanity, the mere will the law, if so amended, command the respect of the intelligent of the nation. It is unfortunate that Medical men should not be more on their guard when giving their evidence in a court of justice. One authority used these words—"He regarded hers as a case on the borderland between crime and insanity."

This mode of expression may be poetical and imaginative, but its very ambiguity and indefiniteness are eagerly caught at, and used with a species of morbid avidity by the non-Professional mind. Its captivating sound, words signifying nothing, are so convenient as to be used in the peroration of the leading article of the *Times* on this case. It is, no doubt, oftentimes the case, that it demands great power of mental acumen and analysis to discover the phases of insanity; but is it expedient or even politic to put such weapons into the hands of those who are too ready to use them without scruple, to the disadvantage of our Profession—one which necessitates the exercise of special mental powers to become competent in the mastery of abnormal states of cerebral function? Such men as Drs. Forbes Winslow, Maudsley, Connolly, Woodward, and others of the same class, know full well the difficulties that have to be encountered in battling successfully with diseased function of brain, without embarrassing the case by expressions so indefinite at such a time and place as a court of law. Mark the consequence! Mr. Serjeant Ballantine says—"A more noble Profession than that of Medicine, as it is constituted in this country, never had existed. He knew of none for which he entertained feelings of higher respect and consideration."

Mr. Serjeant Ballantine, having delivered himself of this patronising eulogy, thought that was quite sufficient in justification in knocking down that which he had so exalted, so that the fall would be proportionately great; for he continues: "It was on that account that he (Mr. Serjeant Ballantine) felt indignant when men used the honourable character attached to that Profession to propound views before a jury not calculated to elucidate the question under consideration. He could not help thinking they rather went into the witness-box confident in their own powers of verbiage, which did not convey any clear ideas." Until very recently the patho-physiological treatment of the insane was but imperfectly understood; we are now, as it were, raising the veil which has enshrouded cerebral affections in such profound mystery. Dungeons of the most dismal description, iron cages, manacles, chains, and all sorts of demoniacal devices were resorted to for the treatment of the insane. These are now things of the past. Mental diseases are now treated mentally. But the law which has drawn forth such trite and pertinent remarks from Baron Martin and Mr. Serjeant Ballantine was framed in olden times, and coeval with that period when the insane were treated as wild beasts. Having been a pupil of Sir Charles Bell, I have, since 1835, made the brain and nervous system my special investigation. So late as 1836 the insane catacombs in Baltimore had human victims chained hand and foot, and fed in the manner of the tigers, lions, and leopards of the Zoological Gardens. Would that the Medical Profession could return the eulogy of Mr. Serjeant Ballantine with regard to the present state of the law as regards the insane. Insanity is admitted by the most competent authorities to be too often hereditary, as are other abnormal functions. How is this affected when the taint of the disease has to be propagated through such a tortuous and infinitesimally minute channel of communication? Imagine a microscopic sperm-cell uniting with an equally minute germ-cell; this unison producing a vital electric shock, accompanied by a nervous vibration or undulatory state of special nervous molecules, the medium yet undiscovered

—as were the capillary nerves, until lately demonstrated by Dr. Lionel Beale—this shock is conveyed to the ovaria, causing the throwing-off of a minute ovum, which travels through the Fallopian tubes to the uterus, where it germinates and goes through all the phases of embryologic existence. The marvel is, after such a complicated process, that the original taint of the father should be so preserved as to retain and manifest all its characteristics in the future child. No one who has made brain diseases his study but must be aware that the disappointment consequent on the affections being frustrated in the object of their choice is one of the most fruitful sources of insanity. It was the affection for her Medical adviser which developed into an active existence the latent insanity of Christiana Edmunds. It should not be forgotten that at the middle age of woman's life she is specially susceptible of morbid attachments, when there is a predisposition from hereditary or other causes. In this instance the Medical man was the victim of this mentally diseased woman's fancy. It is one of the perils attendant on the exercise of the Medical Profession—one which demands the most enlarged charity to one thus unfortunately situated. Had it not been Dr. Beard, it would have been someone else. The immediate or proximate cause of the development of insanity in Christiana Edmunds was at a period when the change in the function of the uterus takes place, which is so frequently accompanied by mental aberration.

I am, &c., ROBT. H. COLLYER, M.D.

100, Brompton-road, S.W., January 22.

Infection.—Yes. The 29th and 30th Vict., cap. 90, section 39, enacts that —"If any person knowingly lets any house, room, or part of a house, in which any person suffering from any dangerous infectious disorder has been, to any other person, without having such house, room, or part of a house, and all articles therein liable to retain infection, disinfected to the satisfaction of a qualified Medical Practitioner, as testified by a certificate given by him, such person shall be liable to a penalty not exceeding £20. For the purpose of this section, the keeper of an inn shall be deemed to let part of a house to any person admitted as a guest into such inn."

Malta.—Several articles have lately appeared in *Public Opinion* (Malta), calling the attention of the authorities to the absolute necessity for sanitary legislation in that place. It is clearly shown that the drainage is very bad, the water-supply insufficient, and the prevalence of zymotic and preventible diseases excessive. One writer on the subject says, "I would gladly compare the mortality of this island with other places, could I have access to statistics: but, as I have before remarked, for reasons only known to the authorities they are scrupulously withheld." If this be the fact, and we see no reason to doubt it, the authorities are evidently afraid of exposures.

EPILEPSY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Commencing like a child's story-book, "Once upon a time" some writer—either Sir W. Gull or Dr. Druitt—stated that on claret it was easy to command the capricious spirit of composition, and on such stimulant mentally to create a new and happy being without tonsils, coccyx, thymus, or indigestion. Possibly so; but after the fatigues of the Professional day, commend a theoretical teetotaler to a glass of gin-sling, a specimen of which stands at one's elbow, the prescription very simple—R. gin 3j., sugar 3ij., lemon 3j, ice *quantum suff.*, soda-water ℥viii.; M.—an excellent tipple in moderation, and highly recommended as a fever drink by several learned coroners. Under this seductive influence the pen runs easy. Work makes the workman; by writing we learn to write; and the congenial theme of the moment has not been ridden too hard—a rich mine of discovery lies still unexplored. From the Registrar-General's Returns it appears that in England annually about 3000 people die of epilepsy, the majority of fatal cases being younger amongst females. Turning to the Army Medical Department records, it appears that on home service, in 1869, out of 239 soldiers admitted into Hospital 1 died, and 96 invalided; no case in the Household Cavalry. Abroad the numbers treated amounted to 150 (about), of whom 3 died at Bermuda, Madras, and the Cape. Excepting Japan and New Zealand, instances occurred at each foreign station—Madras (28), Bombay (37), the Cape (17), and so on. In the navy the admission higher generally; it appears, in 1868, out of 94 cases on home stations, 1 died, 45 invalided. In both services the numbers treated on home stations considerably in excess of those abroad. The recruit on enlistment often conceals any mention of an epileptic tendency—a condition easily re-induced by drink and sexual excesses; and a scoundrel hoping to obtain his discharge will cunningly feign disease. Instead of convulsions connected with constitutional disease, cerebral or spinal organic lesions, catalepsy, or an infinity of phases pitiable and demanding sympathy, our hearts hardened by previous impostures, we look out for other reasons, and with distrust and disgust proceed to diagnosis. One decrepid Assistant-Surgeon may, perhaps, be sitting with his wife, brooding over the addition of twins, and the order to go abroad which will break up his little world of domestic happiness; another playing whist, his hand full of trumps; or a third cramming up temporary knowledge for examination—when the summons arrives to visit a soldier in a fit. The cry of "Wolf"—no matter how often repeated—must never be ignored; always put in an appearance. The man may be drunk—ten chances to one he is—but, on the other hand, he may be dying. On one occasion, at country quarters, whilst on the stage dressed up as a ferocious bandit, flourishing pistols, and calling "Revenge!" "Despair!" "Ha ha!" and so forth, I had the luck to be called away to an impostor feigning epilepsy—and in long boots and Spanish curls one had to go. [This is in strict confidence; in those days we were wild and wayward, but (with slow promotion) we are not wayward now.] Late at night, in a barrack-room, about ten men disturbed from sleep are holding down on his bed Private Adam Elijah Walker (soldiers have *such* patronymics), who is struggling, plunging, cursing, and yelling; in fact, going through the stereotyped antics. If, like the justice, "in fair round belly with good capon lined," beware of a kick—the opportunity is too good to be lost; the inclination pardonably tempting. Or, if fool enough to put your fingers near his mouth, our interesting patient is perfectly justified in indulging the luxury of a sharp bite. Do not put a cork between his teeth—it may stick in his throat; use a strong spoon; even then you may injure the jaw. They say an Italian recently swallowed either a soup-ladle, a carving-knife, or a two-pronged fork, but—credat Judæus!—tell it to the Marines or the *British Medical Journal*. Put Walker on the floor, clear the space all round, remove all restraint (although pressure in certain directions sometimes will avert an attack). After lightning comes the thunder. If the fit be genuine the accumulated nerve-force finds relief in jactitation of the muscles. Let him turn and roll and gnash his teeth. One man is sufficient to remove obstacles, and quietly to steer erratic movements. Supposing the symptoms feigned, Adam Elijah, taking every care not to hurt himself, must occasionally open his eyes to arrange the next move: the pupils will be sensitive, and any allusion to a hot poker or a cold drenching will, as we say in the army, "be noted." Whereas a *bonâ fide* victim will have a pale, cadaverous face, likewise a cold skin, our friend's Cockney countenance will be flushed with exertion, the body hot, the tongue not bitten; the atmosphere will exhale an aroma of pine-apple rum, and a pinch of snuff or pepper will induce sneezing. *Difficile est satiram non scribere.* Now, changing the vein, and treating the subject as it deserves—most seriously—no disease appears more disheartening than epilepsy, where it is impossible to conquer the *fons et origo mali*. All honour to Radcliffe, Russell Reynolds, Beaman, Sieveking, and others who have done their share of exhaustive research and careful observation, leadiog to successful treatment. As in the street, the railway-carriage, or the ball-room, the practised Physician notices phthisis, cancer, neuralgia, renal, cardiac, or ovarian disease impressed on different faces, so when the eye rests on a tall, pale, handsome woman, with chiselled rigid features, peculiar chin, and a reserved, quiet manner, epilepsy somehow suggests itself, especially if the eyeballs are prominent. Take the case of a high-minded lady, who, going the round from one Physician to another, improves for a time, only to relapse. Fond of her husband, her children, and her home, perhaps placed in a position requiring brilliant powers of conversation, ready tact, and energy, in vain she struggles against failing memory and listless torpor. It may happen at an important dinner-party when that terrible fear comes on, she sees those vivid colours, hears the dreaded air from *Faust;* there may be a pleasing tingling of the feet, a cold sensation about the stomach, a creeping along the back, a numbness of the hand, or throbbing of the temples; like Mathias in the tale of the Polish Jew, she hears the bells. She hears no more—for the rest is a blank.

The barrack clock strikes one; outside the sentry lustily shouts "All'a well"; the fire and the lamp burn low, and the "bright moon that tips with silver all the fruit-tree tops" peeps in pleasantly between the curtains. However, before laying down the pen, although fully alive to the value of large doses of bromides and iodides, also of the preparations of arsenic, iron, zinc, strychnine, and quinine, the advantages of electricity, climate, general hygiene, etc., I cannot believe that any man can baffle this eccentric subtle disease unless he is a good sound GENERAL PRACTITIONER.

P.S.—The above prescription can only be accurately dispensed at a military mess.

Etiquette.—It was the custom of the great Dr. Johnson, when shown into a room where there were books on shelves, always to spend the spare time in looking over the titles and dipping into the volumes. It is something to know what books there are on any given subject. Books on a table, put out evidently to amuse visitors, of course are meant to be freely handled; but it is a violation of etiquette to scan too closely the books on a man's study-table, so as to seem to pry into the subject of his immediate studies. The offender is probably a very young man.

Practitianer.—Our columns are far too full at present. But let us say that no experiment in the laboratory, and no vivisection, can do away with the *bonâ fide* results of clinical observation. A man who has been living, "not wisely, but too well," with a skin the colour of a Ribston pippin, and a paunch as tight as a drum, takes five or ten grains of calomel, and a black draught next morning. By this he is relieved of a hatful of offensive scybala and a good flow of greenish-yellow bile. Can this be disproved because a dog, with perhaps an almost empty state of abdominal veins, does not, after calomel, secrete more bile than usual through a fistulous hole leading into its gall-bladder? In giving the calomel or other mercurial to increase the secretions of the liver, of course we assume, and ought to have sufficient evidence, that the liver is too full, and has bile to be got rid of.

USEFUL ADVICE TO SUFFERERS FROM CONSTIPATION.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—As constipation *par excellence* constitutes one of the most troublesome and most common afflictions of mankind, I feel obliged to give publicity to the following experience, although it is not a very pleasant subject to write upon in public. A few days ago, I made as it were by accident the experience that defæcation is greatly forwarded by a pressure on the perineum between the anus and the end of the os coccygeum. In case of difficult defæcation, or imperfect depletion of rectum, the patient should put his hand on his back, and hence lower it gradually until it will have reached the last vertebra of the spine. In this manner he will enable himself without any inconvenience to exert with his finger a pressure on the right spot. If the pressure be supported by rotatory and rubbing movements of the finger, and by the natural internal pressure, its effect will be all the greater. A careful application of my advice will undoubtedly prevent many diseases of the bowels, especially piles, dilatation of the rectum, prolapsus of this organ, etc. I am, &c., H.

COMMUNICATIONS have been received from—

Dr. WHITMORE; Mr. HEWITT; Mr. SNELL; M.B.; Mr. BAYNTUN; Dr. JORDAN; Mr. T. PIPER; Dr. MACCORMAC; Dr. C. C. RITCHIE; Mr. HARTLEY; Mr. METCALFE JOHNSON; Dr. STEVENSON; Mr. MATTHEWS; Dr. VINEN; Dr. POWELL; Mr. MAUNDER; Mr. PERRIN; Mr. D. A. SCOTT; JUNIUS MEDICUS; Mr. F. CHURCHILL; Mr. H. MORRIS; Dr. J. RUSSELL; Dr. HAMILTON; Mr. H. S. HEATH; Sir JAMES PAGET; Mr. PEARLESS; Dr. OGLE; Mr. WOOLCOTT; Mr. COLVILLE.

BOOKS RECEIVED—

Photographic Clinique of the Hospital for Diseases of the Skin, No. 1—Report of the Commissioners of Sewers, with Return of Amounts Paid to the Metropolitan Board of Works—Wolff on Zymotic Disease—Harley

on the Urine and its Derangements—St. Thomas's Hospital Reports, vol. ii.—Fergus on the Sewage Question—Convocation Report on Intemperance—Hoyle on Our National Resources and How they are Wasted—Fourth Report on the Operation of the Contagious Diseases Acts—Bayes on Typhoid Fever, with Cases—Curran's Further Evidence in favour of a Hill Residence for European Soldiers in India—Burke's Observations on the present Epidemic of Small-pox—Penning's Notes on Nuisances—MacCormac on Consumption.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Notes and Queries—Dark Blue, February—Madras Monthly Journal of Medical Science—Bath Express—Lincolnshire Chronicle—Lincoln Gazette—Pharmaceutical Journal—Dublin Journal of Medical Science, February—Medical Press and Circular—Standard.

APPOINTMENTS FOR THE WEEK.

February 17. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Association of Medical Officers of Health, 7½ p.m. Dr. Albert J. Bernays, "On the Precautions which should surround Toxicological Investigations in Medico-legal Cases, and on Evidence in Courts of Law."

Royal Institution, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakespeare's Time."

19. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Mr. Victor de Méric, "Casts and Drawings on a Case of Congenitally Deformed Hands and Feet." Dr. C. Bell Taylor, "Observations on the Contagious Diseases Acts, with an Analysis of the Statistical Results as deduced from all the Parliamentary Papers which have been issued on the subject from the commencement to the present time."

20. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Dr. C. T. Williams, "Malformation of the Chest (a Living Subject);" "Ulceration of the Vermiform Appendix, causing Local Peritonitis." Dr. Moxon, "Expansion and Softening of Small Grey Tubercle." Dr. Nunneley, "Congenital Occlusion of Hepatic Ducts." Dr. Greenhow, "Embolism and Softening of the Left Anterior Cerebral Lobe; Aphasia." Mr. W. Adams, "Depressed Fracture of the Skull in a Child, with Injury to the Brain;" "Circumscribed Abscess in the Inner Condyle of the Femur opening spontaneously." Mr. Gay, "The Head and Neck of a Femur excised for long-standing Disease of the Joint." Dr. Pye-Smith (for Dr. Shepherd), "Malformed Heart of a Child." Mr. Durham, "Hydatid Tumour of the Thigh." Mr. Waren Tay, "Tumour of the Arm; Congenital Hypertrophy." Mr. W. Haward, "Fibrous Tumour of the Testicle." Dr. Andrew Clark, "Disseminated Melanosis" Mr. Thomas Smith, "Axillary Aneurism, for which the Subclavian Artery had been Ligatured."

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Society of Arts, 8 p.m. Meeting.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

23. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Mr. Bryant, "On Two Cases of Recto-Vesical Fistula treated by Colotomy." Mr. Warrington Haward, "On Cases of Distension of the Antrum." Dr. H. Weber, "On a Case of Hyperpyrexia in Rheumatic Fever treated by Cool Baths and Affusions." Dr. George Johnson, "Case of Syphilitic Paralysis of Third Nerve cured by Full Doses of Mercury after Failure of Large Doses of Iodide of Potassium."

Quekett Microscopical Club, 8 p.m. Meeting.

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Hensley, "On the Mechanism of Respiration, Circulation, and Digestion."

Royal Institution, 9 p.m. Mr. H. Leslie, "Social Influence of Music."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 10, 1872.

BIRTHS.

Births of Boys, 1210; Girls, 1282; Total, 2492.
Average of 10 corresponding weeks, 1862-71, 2261·6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	764	760	1524
Average of the ten years 1862-71	754·1	740·9	1495·0
Average corrected to increased population	...	...	1645·
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	5	2	1	13	...	...	2	1
North ...	751668	35	16	6		26	1	6	1	5
Central ...	333887	2	5	2	2	8	...	1	...	2
East	638928	13	8	4	...	16	1	2	3	1
South ...	966132	16	6	17	...	25	2	6	2	4
Total	3251804	68	40	31	3	88	4	15	8	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·704 in.
Mean temperature	46·6°
Highest point of thermometer	57·9°
Lowest point of thermometer	32·8°
Mean dew-point temperature	42·0°
General direction of wind	S.S.W.
Whole amount of rain in the week	0·20 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 10, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Feb. 10.	Deaths Registered during the week ending Feb. 10.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2492	1524	57·9	32·8	46·6	8·11	0·20	0·51
Portsmouth ...	115455	12·1	76	52	54·0	36·8	45·1	7·28	0·35	0·89
Norwich	81105	10·9	60	61	52·8	32·5	43·7	6·50	0·37	0·94
Bristol	186428	39·8	132	76	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	63	44	56·2	38·7	45·1	7·28	0·83	2·11
Birmingham ...	350164	44·7	280	154	57·1	36·0	45·4	7·44	0·93	2·36
Leicester	99143	31·0	87	38	56·0	33·7	45·8	7·66	0·44	1·12
Nottingham ...	88225	44·2	51	48	54·3	35·1	45·0	7·22	0·49	1·24
Liverpool	499897	97·9	404	255	53·0	39·0	45·6	7·55	0·59	1·50
Manchester ...	†352759	78·6	285	191	56·0	33·5	41·8	7·11	0·42	1·07
Salford	127923	24·7	88	62	55·4	34·2	45·4	7·44	0·27	0·69
Oldham	84004	20·2	64	47	...	...	...	...	...	...
Bradford	151720	23·0	105	69	51·0	36·5	44·0	6·67	0·59	1·50
Leeds	266564	12·2	131	133	51·0	35·0	43·0	6·11	0·54	1·37
Sheffield	247847	10·9	200	143	51·0	35·0	44·1	6·73	0·77	1·96
Hull	121976	35·1	108	56	...	...	...	...	...	...
Sunderland ...	100665	30·4	78	66	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	90	82	50·0	32·0	42·7	5·95	0·45	1·14
Edinburgh	205146	46·3	132	116	50·0	27·0	39·9	4·39	0·40	1·02
Glasgow	480136	94·8	367	286	48·0	29·6	41·4	5·22	0·66	1·68
Dublin	310565	31·9	182	231	58·0	28·5	46·1	7·83	0·33	0·84
Total of 21 Towns in United Kingd'm	7394315	34·0	5475	3760	58·0	27·0	44·3	6·84	0·61	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·70 in. The highest was 29·81 in. on Wednesday at noon, and the lowest 29·49 in. on Monday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,099, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the correctednumber for 1871.

ORIGINAL LECTURES.

LECTURES ON EXCISION OF THE HIP-JOINT.

By HENRY HANCOCK, F.R.C.S.E.,
Senior Surgeon to Charing-cross Hospital.

GENTLEMEN,—Paul of Egina appears to have been the first to recognise the propriety of excising joints for disease. "If," says he, "the end of a bone near a joint be diseased, it must be excised."

Avicenna was the first to draw especial attention to the possibility of excising the head of the thigh-bone, but he did not approve of the proceeding, observing, "But if the head of the thigh-bone be diseased, it is better to abstain from operation."

The Germans claim the honour of priority in the performance of this operation for Schmalz, of Pirna, in Saxony, who was called to the daughter of a priest at Stürve, who had for six months suffered from disease of the hip-joint. The girl appears to have been in a most unfavourable condition for operation. Not only was the head of the *left* thigh-bone dislocated upwards and backwards, but the right hip-joint was suppurating, although the head of the thigh-bone still remained in the cotyloid cavity, the child being in the last stage of weakness and hectic fever. Schmalz, having by the probe discovered that the neck of the right femur was carious, made up his mind that excision of the head of that bone was, although a doubtful, still the only method which held out a hope of doing good. He therefore made an incision four inches long over the great trochanter, exposing the latter. "To my great astonishment," he writes, "I found the neck of the bone detached from the trochanter. I required neither bone-forceps nor saw, but, seizing the neck with a strong pair of pincers, after rotating it strongly, I extracted it with the head with very slight hæmorrhage. Nature had thus performed excision of the head of the femur." Schmalz continues—"The patient recovered. I observed that the leg operated upon became as short as the other, the femur having been drawn up by the action of the muscles. Both sides of the pelvis are the same height, whilst the entire pelvis is slightly inclined forwards. Near the left hip-joint the elevation caused by the luxated bone may easily be felt. On the operated side this elevation of course is absent, but the great trochanter occupies nearly its normal situation. The two feet are turned slightly outwards, the legs are equal in length, and the child totters somewhat in walking."

After reading the above, we can scarcely agree with those who describe the case as a mere trial, and assert that no real excision of the joint or of the head of the femur appears to have been performed until April, 1821, when Mr. Anthony White, of Westminster Hospital, successfully removed the head and neck of the femur.

No one can reasonably doubt that Schmalz's operation was undertaken with the full intention of excising the head and neck of the femur, nor can we understand how the mere fact of the neck being separated from the trochanter whilst the head of the bone remained in its proper situation can by possibility deprive him of the credit due to his having initiated this operation. I knew Mr. Anthony White well; I had the advantage of being one of his pupils. If he were now living he would be the first to acknowledge the priority of Schmalz, for no one more thoroughly despised attempts to assume credit due to others than he did. Mr. White frequently talked to me of this operation, and regretted that it was not more generally adopted. He claimed, it is true, to be the first *English* Surgeon—he never claimed to have been the *first* Surgeon who performed it. Whilst, therefore, the priority is due to Schmalz, the operation was performed for the second time in Europe, and for the first time in this country, by Mr. Anthony White, in the year 1821.

The patient, John West, when 9 years old, slipped down stairs and slightly hurt his left hip. After a few weeks, he was observed to limp in his gait, and complained of pain and stiffness in his groin; and subsequently he lost the power of locomotion, had the usual symptoms of hip-joint disease, and the head of the thigh-bone became displaced and rested far back on the dorsum ilii. He suffered very acutely, and underwent the usual treatment of cupping, blistering, etc., with all kinds of constitutional remedies for many months, but without benefit, and after a time suppuration in the joint took place, which was evacuated from the front and upper part of the thigh. Temporary relief was thus obtained, but during two years a succession of similar abscesses formed around, and small portions of bone were frequently protruded through the sinuses which remained, and more especially from those formed over the pubes. At the end of the third year he was in the greatest possible state of emaciation; no longer enduring acute pain, but exhausted by the previous suffering, and by an overwhelming discharge from numerous apertures. The integuments over the displaced bone had become at various parts absorbed, and the bone was readily found at these points to be in a state of superficial caries. The knee had long been embedded and immovably fixed on the inner side of the opposite thigh, and the right side, on which he could alone lie, was cruelly galled with bedridden ulcerations. The formation of fresh abscesses had for some months ceased, and further diseased processes were not apprehended.

In the month of April, in consultation with Mr. Travers, it was decided to remove the head of the bone. An incision was made through the integuments, beginning about an inch above the point where the head of the femur was deposited, and then carried down the centre of the bone, to a point as far as was considered necessary for sawing through it. The integuments were then separated on each side, making their dissection as close to the bone as possible. The straight saw was then used, and the femur divided without difficulty about two inches below the top of the great trochanter, and including the little trochanter. So closely adherent was the upper portion of the bone to the ilium, that Mr. White was compelled to introduce a spatula between the sawn ends, and use it as a lever, by which he was enabled to detach the subjacent parts, and to finish the operation. A very small quantity of blood was lost, and the boy suffered less than was anticipated. The bone had lost but very little of its original form; the round ligament and the cartilage were gone, and the head of the bone was slightly affected by superficial caries. Neither the finger nor the probe could detect any morbid condition of the ilium, but the original site of the acetabulum could not be found. The knee was now gently raised outwards, the removal of the fixed head of the femur admitting of that movement. Such is the history of this celebrated case. We can scarcely credit the temerity of one who evidently has never performed this operation in his life deliberately attempting to detract from its merit and describing it as a mere excision for deformity.

Here we have the patient in the greatest possible state of emaciation, exhausted by previous suffering and an almost overwhelming discharge from various apertures, with the integuments ulcerated and the bone to be felt in a state of caries, with the knee embedded in the opposite thigh, and the opposite side of his body cruelly galled by bedsores.

True it is that the formation of fresh abscesses had ceased for some months, and that further diseased processes were not apprehended; but still the discharge and the numerous apertures remained, the ulcerated integument remained, the bedsores remained, the caries of the head of the bone remained; yet we are told that this operation, undertaken for the sole and express purpose of removing this carious bone, for enabling the various wounds and sinuses to heal, was nothing but "a proceeding for getting rid of the deformity resulting from an arrested hip disease."

Had the author in question consulted Mr. White's own paper in the *Lancet*, he would have found Mr. White distinctly stating: "Considering that the strength of the boy from the profuse discharge kept up by the caries of the bone was never likely to be restored, I was induced, after mature reflection, to propose an operation for the removal of the femur as far as it should be found in a state of caries, which, from the examination with the probe, appeared to extend probably a little lower than the great trochanter." Clearly showing that Mr. White's object in recommending the operation went far beyond the "mere removal of deformity."

This case, moreover, is interesting, not only from its being the first operation of the kind ever undertaken in this country, but from the opposition offered to its performance; for, proceeds Mr. White, "my colleague, the late Mr. Morel, saw the case, concurred in the proposition, and offered to be my assistant." However, the late Mr. William Smith, member for Norwich, to whom the mother of the boy was known, informed the late Sir Everard Home of the proposed proceeding. The boy, at his request, was conveyed to St. George's Hospital, and after an examination of the case with his colleagues, a written document signed by him and them was given to the mother of the boy, declaring that the contemplated operation would not only be useless, but impracticable, and most likely, if attempted,

attended with loss of life. "I was not present," says Mr. White, "at this consultation, and only knew of it by being shown this document or protest by the child's mother. Of course after such a published declaration I abandoned the case altogether." And no wonder! for the proceeding can scarcely be regarded as either courteous or liberal. But, fortunately for the interests of science, after an interval of some months, Mr. Travers, whilst attending at Mr. Smith's house in the city (to which the boy had been removed with his mother), was requested to look at him, and being told of the proposed operation by the mother, at once saw and understood the principles and plan of the procedure.

What a striking contrast does Mr. Travers' conduct present. He at once wrote to Mr. White, not only expressing his entire concurrence in the measure, but also kindly offering to assist him in carrying it into effect, notwithstanding the formidable protest which had been published shortly before. Fortified, therefore, by the opinion of this distinguished Surgeon, Mr. White performed the operation in April, 1821, and removed the head, neck, and trochanters, the caries being superficial, and not extending lower than the lesser one. The patient rapidly acquired strength and flesh, and in a few weeks every sinuous opening had healed.

In 1823, Hewson, of Dublin, removed the head of the femur for caries; but the patient died three months after from abscess penetrating the cotyloid cavity into the pelvis. In 1829, Schlichting divided a sinus and extracted the head of the femur, which was detached and carious. The patient recovered in six weeks.

These examples were followed by Heine (of Wurtzburg), Gluge, Vogel, Textor, Sedillot, and others. But brilliant and successful as was White's case, the operation was entirely lost sight of and neglected in England, and, with the exception of a case said to have been performed by the late Sir Benjamin Brodie, for twenty-four years it was performed exclusively in Germany.

We read in Le Fort's treatise that, up to the year 1862, notwithstanding Bonino's celebrated work on the subject, it was performed for the first and only time in France by Ph. Ronx in the year 1847. It has never been repeated since; as the operation performed by Maisonneuve was not a *resection*, but a *section* through the great trochanter to create a false joint for the cure of anchylosis. Even so late as 1861, Malgaigne is reported in the *Gazette Médicale* to have declared that it was impossible to discuss the merits of this operation, as they knew nothing about it, nobody having done it or seen it done.

Nor does the proceeding appear to have found more favour in Scotland. As recently as November 25, 1865, we find Dr. Donald MacGregor, of Glasgow, thus writing to the *Lancet*:—

"A successful excision of the hip-joint has been so rarely, if ever, accomplished in Scotland, that I trust the following case may not be uninteresting:—A youth, aged 17, strumous, suffered from rheumatic pains in his hip, which increased so much that in the course of a month he was obliged to give up work. Matter subsequently formed, and the discharge continued for several months. Hectic fever ensued, the patient was fast sinking, and, to save his life, Dr. MacGregor excised the joint.

"He made an incision six inches long over the great trochanter. This was followed by a gush of blood, not from any large vessel, but from general oozing, and was easily arrested. The capsular ligament was partially destroyed, but the ligamentum teres was entire. The head of the bone turned out; the bone was sawn off through the great trochanter, and in so doing the saw passed through a large abscess in the cancellated structure of the bone. The acetabulum was healthy, and no vessel required a ligature. The whole neck of the femur was carious. For fourteen weeks the patient walked on crutches; in five months he was able to walk with the aid of a stick only."

At length, Mr. Anthony White found a worthy successor in Sir William Fergusson. This distinguished Surgeon, in 1845, not only resuscitated the operation, but, by his success and precepts, gave the proceeding so great an impulse that it has now taken a deep and doubtless a permanent root in the domain of British Surgery. To Sir William Fergusson, therefore, a credit scarcely inferior to that of White is justly due. He has just reason to be proud of many notable achievements during the progress of his career, but I very much question whether he has ever done anything by which he has conferred greater benefits upon mankind than by the revival and re-establishment of this operation, whereby many, previously doomed to protracted and irremediable suffering and a miserable death, have been relieved—frequently saved. A case attended by such results can scarcely be passed by unnoticed:—

"J. C., aged 14, was admitted into King's College Hospital November 20, 1844. Always enjoyed good health until the January preceding, when he first experienced severe pain in the left groin, which continued unabated notwithstanding the use of leeches, blisters, seton, etc. Between three and four months afterwards the pain became most harassing in the left knee. Early in October a large collection of matter formed over and behind the great trochanter, which burst spontaneously, and there has been continued discharge ever since. The condition of the limb is such as is usually noticed in the advanced stage of hip-disease. It appears considerably shorter than the sound one, and is much bent both at the knee- and hip-joints.

"There is constant pain in the knee, but there is little in the hip unless the limb be moved, or the head of the femur forced against the pelvis. After remaining in the Hospital three months the distortion of the limb had increased, and in consequence of lateral curvature in the lumbar region of the spine, with corresponding obliquity in the pelvis, as well as further flexion at the hip and knee, the shortening was more apparent than ever. The heel of the affected side was between four and five inches above the other. The shaft of the femur sloped obliquely downwards and inwards, and the knee rested on the inner side of the thigh of the sound limb. The head of the bone could be felt through the soft parts lying on the dorsum ilii, and so isolated that the finger could be passed round it in all directions.

"There were several small sinuses contiguous to the large one, but it could not be ascertained that any of them led to diseased bone or communicated in any way with the pelvis. There was a large circular sore over the great trochanter, and a profuse discharge of thin matter. The patient made no complaint of pain unless the limb was moved, but seemed weaker and more dejected than when first admitted. He could lie with comparative comfort only on his right side. Pulse varied from 100 to 110; appetite indifferent; tongue very red; cheeks frequently flushed; had profuse night sweats; and the feet and face were slightly œdematous.

"On March 1, 1845, a longitudinal opening, about six inches long, was made in the line of the femur, extending from over the head of the bone to a little below the trochanter major, and the tissues were separated from the shaft of the bone a little below that process, so as to permit a curved needle to be used for the introduction of a chain-saw. This latter step was attended with considerable difficulty, owing to the depth and obliquity of the bone, and, when accomplished, proved to be of little value; for after several trials the instrument broke, and Sir William was compelled to adopt another mode of procedure. With a sharp-pointed bistoury he separated all the soft parts from the neck of the bone and the trochanters, and then, by causing the knee to be moved across the opposite thigh, and using the femur as a lever, the head and portion of the bone thus isolated was so thrust out of the wound that he could with facility apply the ordinary saw for the requisite section. Not being satisfied with the condition of the interior of the bone at the surface exposed by the saw, he enlarged the opening and removed about three-quarters of an inch more, then closed the wound with a few points of uninterrupted suture, and covered it loosely with a pledget of lint. No vessel of sufficient magnitude to require a ligature was divided. The cotyloid cavity was filled with a fibro-gelatinous mass, similar to the lining of a sinus.

"There was scarcely any shock succeeding to the operation, and the chief complaint was pain in the knee, which for some days after was more severe than at any former period. The symptomatic fever was very slight, and disappeared entirely within the first ten days. In ten weeks, the wound having almost closed, the splint was removed, and the patient allowed to move about the wards upon crutches. He continued to improve in strength, and ultimately moved about without trouble or pain, and wearing his clothes as in perfect health.

"The length of bone removed was four inches and a quarter, measured through the curve of the neck and shaft, and the limb is now (June 24, 1845) about two inches and a half shorter than its fellow. The cartilage was almost entirely removed from the head of the bone, and the surface was in a state of ulceration. The trochanter and rest of the shaft seemed in a healthy condition, with the exception that the cancellated tissue was loaded with a dark-coloured fluid of an oily consistency, and seemingly mingled with imperfectly formed pus."

It was scarcely to be expected that a proceeding apparently so heroic and formidable should have escaped severe criticism and opposition even from the most distinguished among us. This opposition was not confined to Sir Everard Home and his

colleagues, but of later date its most strenuous opponent was Mr. Syme. His objections appear to be founded upon the coexistence of disease in the acetabulum when present in the head of the femur; upon the supposed impossibility of eradicating the disease when so coexistent; and upon the apparent severity of the operation, which he characterises as "bloody" and "formidable," "not only useless but hurtful."

Mr. Syme admits that in hip disease the result depends chiefly upon the state of the bones composing the joint. "If they are carious *he must die;* if they are not, he *may* recover." Notwithstanding this admission, he continues—"Some operations have been lately performed in London with the view of remedying caries of the hip-joint by cutting out the head of the thigh-bone, but this proceeding must have originated and been conducted in forgetfulness of the well-known pathological fact, that when caries attacks the surfaces of a joint it is never limited to one of the bones which compose the articulation. If the articulating surface of the head of the thigh-bone be carious, it follows as a matter of absolute necessity that the acetabulum must be in a similar condition. But as the acetabulum does not admit of removal in the living body with any prospect of safety or advantage, no benefit can be derived from taking away a part of the articulation, and therefore excision of the head of the thigh-bone for caries of the joint should be regarded as no less erroneous in theory than objectionable in practice. In the London operations the hip-joints must have been either carious or not, and the proceeding either useless or unnecessary. It is very probable that in some of these persons the head of the thigh-bone might have been cut out during the suppurating stage without *preventing* recovery. But in what respects they would have derived benefit from the operation it is not so easy to see."

Mr. Skey, in his work on "Operative Surgery," also remarks—"This operation is rarely justifiable, or, when performed, answers any good purpose."

On the other hand, the operation has been advocated by Mr. Anthony White, Sir William Fergusson, Messrs. Gant, Holmes, Knox, Price, Smith, Walton, Dr. Bonino, and others; but without exception, prior to the year 1857, when I submitted my views to the Profession, writers upon excision of the hip-joint restricted the operation to cases in which dislocation of the head of the femur had obtained, and the head of the bone created irritation by acting as a foreign substance amongst the soft tissues of the hip; and all laid considerable stress upon the necessity that, for the operation to succeed, the amount of disease in the acetabulum and pelvic bones must be extremely small. In the year 1844 Dr. Bonino writes—"Any operation undertaken when the cotyloid cavity is affected is worse than useless, as we only remove a portion of the disease, leaving behind, perhaps, the portion most likely to lead to a fatal result. Such indeed seems to have been the cause of death in some of those operated upon."

Sir William Fergusson, in his paper read before the Medico-Chirurgical Society in 1845, alluding to a case operated upon by Sir Benjamin Brodie, observes—"In Sir Benjamin Brodie's case the head of the bone was in the acetabulum at the time of the operation. The patient died within a few days after—apparently the direct effect of that proceeding." And again, in a clinical lecture, delivered March, 1848, noticing the ease with which the acetabulum may be reached, he says—"I do not by this imply that I should not be deterred from operating, had I indubitable proof that the bones of the pelvis were affected; on the contrary, I would hesitate to resort to such a proceeding under the circumstances."

In the year 1848 Mr. Henry Smith laid down the following rules:—"If, then, there be dislocation of the thigh-bone, and the head of that bone be found to be extensively diseased, and there is no disease of importance in the pelvic bones, and no communication between the abscesses about the hip, nor any with the pelvis or abdomen, etc., then will it be both justifiable and proper to have recourse to this operation. It is only under peculiar circumstances that resection of the head of the femur should be attempted; the disease must be in its last stage. It is necessary that dislocation of the thigh-bone from its socket should have taken place, and there must be evidence of the disease being confined chiefly to the upper part of this bone, and of a non-complication to any great extent of the pelvic bones."

Sir Benjamin Brodie, in 1850, after pointing out that the head of the femur may sometimes be felt lying on the dorsum ilii, seemingly almost immediately beneath the common integuments, says—"In such a case it has been proposed to make an incision on it, and remove the head and neck of the femur by the saw. It would appear that this operation has been actually performed with some degree of advantage, and I do not doubt that circumstances may occur to make it worth while to have recourse to it. But it is to be observed at the same time that all that can be thus accomplished is the removal of one portion of the disease, and that it is the largest portion of it, in the bone of the pelvis, which is necessarily allowed to remain. The operation cannot be performed without a certain degree of local disturbance, and more or less loss of blood; and taking all these things into consideration, I conceive that we should not recommend it, except when some unequivocal advantage may be expected from it."

Mr. Knox, whose celebrity as an anatomist all admit, wrote, in 1851:—"In making this seemingly bold attempt for the speedy cure of a hitherto intractable disease, Surgeons were no doubt quite aware, or, at all events, ought to have known, that the caries affecting the femur was most usually a morbid affection, not confined to the bone, but was a disease affecting simultaneously in many cases the pelvic bones entering into the composition of the joint; that the os innominatum, in fact, was quite as liable to constitutional or scrofulous caries as the femur itself; that both are, unhappily, most frequently simultaneously affected; and that the removal of the femoral portion of the disease (the pelvic part being beyond the reach of excision, at least, if not of any Surgical treatment) by no means warranted the inference that disease in the pelvic portion would in all cases be arrested, and a speedy cure be effected."

Mr. Erichsen, also, in 1857, in allusion to cases wherein the pelvic bones are much involved, the acetabulum carious, rough, and probably perforated, says—"The treatment of this form of hip disease is in the highest degree unsatisfactory. Excision of the hip-joint is of course not practicable, on account of the amount of osseous disease and the extensive implication of the pelvic bones."

Among the other objections which have been raised is the possibility of mistaking disease of the sacro-iliac synchondrosis or of the pelvis itself for hip-joint disease; and another, upon which Mr. Coulson lays great stress, "That in this disease it is not the articular symptoms which produce death, but the exhaustion of the frame and strength, which the Surgeon, looking at the local cause only, imagines to arise from resistance to an incurable local malady; whereas the local malady and hectic are but symptoms indicative of the same disease; so that, to whatever extent the local malady may aggravate the general symptoms, as it is not the cause of these symptoms, so neither will its removal prove the remedy."

(*To be continued.*)

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture I.

Mr. President and Gentlemen,—At the commencement of the first course of lectures on Comparative Anatomy which I had the honour of delivering in this theatre, I recalled the fact that these lectures are intimately associated with the Museum; that their annual delivery was one of the conditions upon which the Hunterian collection was entrusted by the nation to our College, and that it was expressly stipulated that they should be "illustrated by the preparations."

I have endeavoured to fulfil this condition both in the choice of a subject and in the method of its exposition. It has been proposed, with the help of the specimens in the Museum, to take a general survey of the structure of the animals belonging to the highest class of organised beings, and, taking human anatomy as a point of departure, to trace out the deviations from, and resemblance to, the best-known form of vertebrate structure, in descending through the series of animals composing the class of mammals.

The object of this course is twofold—(1) The greater interest which it may be presumed the audience likely to assemble in this building will take in the portion of the animal kingdom to which we ourselves, in bodily conformation, are most nearly related; and (2) Because it is one of the special features of this Museum that, as the anatomy of man is more fully illus-

trated than that of any other species, so, in ascending the series of organised beings, the more nearly we approach to man the more completely and in greater detail do we find the various modifications of structure demonstrated by specimens.

Last year the characters, structure, functions, and modifications of the teeth occupied our attention. Certain practical reasons were given why these organs were most conveniently considered apart from the other buccal structures with which they are physiologically and locally connected; for they are, in fact, nothing more than extremely modified papillæ of the mucous membrane of the mouth, and in the main, though not exclusively, subservient in their function to alimentation. Their chief distinction from the remaining parts of the great and complex system of what are comprehensively called "digestive organs" is their intense hardness, owing to the impregnation of their tissues with earthy salts, and the firm connexion which they contract in the process of their development with the bony framework of the jaws. Their preservation and examination is consequently a far more easy and simple process than that of the remaining parts of the same system, which, following the arrangement of the Hunterian physiological series, will next engage our attention.

Certain portions of the membrane lining the internal surface of the alimentary canal near its commencement are raised into papillæ of various forms, the epithelial covering of which may be very greatly developed, and even acquire the hardness and consistence of horn. Such parts are then called "odontoids."(a) With the exception of these, all the structures to be spoken of in this course are of a very perishable nature, being composed of various combinations of connective, epithelial, muscular, and glandular tissue, and can only be studied either upon freshly dissected specimens, preparations preserved in spirit or some antiseptic fluid, and in some cases only, and in a partial and imperfect manner, in dry preparations. Consequently, far greater difficulties beset an acquisition of a knowledge of their form and arrangement in different animals than is the case with the more durable and easily examined bones and teeth.

The preparations of these parts which are put up in such a manner as to afford satisfactory information upon the points we wish to know, are, even in this Museum, very far less numerous and complete than those of the other structures to which I have just referred, and in the case of animals of considerable size, the difficulty and expense of mounting the visceral organs in spirit quite precludes the possibility of being able to afford permanent demonstrations of their form and structure. When we turn to books for information we find similar difficulties. The obstacles in the way of procuring many animals in a state fit for examination, and the amount of time and labour in dissecting the softer tissues before they can be described, has necessarily rendered their study less attractive than many other branches of anatomical investigation. We have undoubtedly much valuable information on this subject in the numerous general treatises on comparative anatomy, among which I may specially mention the excellent series of dissections contributed by Daubenton to Buffon's "Histoire Naturelle," the "Leçons" of Cuvier and of Meckel, and the more recent work of Owen on the "Anatomy of Vertebrates," together with the valuable notes of John Hunter, which remained unpublished till about ten years ago,(b) and to which I shall frequently refer. And there are also many most important special monographs on groups or particular species, especially of our domestic animals; but these are scattered through such a vast number of different works and journals that their examination and collation is often a matter of great labour, and there is constant danger of overlooking even some of the most valuable. I have endeavoured to seek out and give references, as far as possible, to all of these which contain important information upon the subject of the present course, but to do so in the exhaustive manner that I should have desired would take far more time than, unfortunately, I have at my disposal. One of the greatest difficulties in obtaining information from these monographs, and from books generally, arises from the different methods of dissection and description of particular organs, and the different systems of nomenclature adopted by anatomists. This absence of any uniform method makes it often impossible, unless assisted by figures, to comprehend or make any use of many of the published descriptions.

Perhaps the most important source of information upon the subjects now coming before us has been the opportunity of examining the bodies of animals which have died in that magnificent and admirably managed institution—the menagerie of the Zoological Society in the Regent's-park; and I must here express my sense of gratitude for the readiness which the administrators of the Society, and especially the able secretary, Mr. Sclater, invariably show in consulting the interests of science wherever any such opportunities occur. We owe to the Zoological Society the materials from which have been prepared the larger proportion of the specimens that will be brought before you in illustration of the present course.

These various sources of knowledge having been laid under contribution, I still feel that the materials at my disposal are very insufficient for the task I have undertaken, and that, with many serious omissions, I can only hope to give a somewhat more connected and detailed account of certain modes of viewing these structures than has been before attained, and to supply a want which I myself, and I believe others, have frequently felt. I say *certain modes*, for to treat the subject exhaustively there are many ways of entering upon it which must be almost entirely omitted from this course. For instance, the histological structure of all the organs to be spoken of offers an endless field of research, which, as applied to three or four species of animals only, now occupies the time and energies of a host of workers qualified by special training to advance this most important branch of the subject. Then, a complete review of the present condition of knowledge of the physiological functions of the organs concerned in digestion in these same three or four animals alone would occupy a far longer time than that allotted to this present course. Witness the thirty-six lectures on the "Physiology of Digestion," lately published by Professor Schiff,(c) and which still only embrace a portion of the subject—that relating to the division of the system situated above the pylorus.

Morphology in what may be considered its coarser aspect—as taught, in fact, by ordinary dissection and by museum preparations—must (in accordance, I take it, with the original design of these lectures) be my principal aim; endeavouring, indeed, to indicate, wherever it is practicable, its bearings upon the other branches or aspects of the subject. The search after the purpose which every modification of structure subserves in the economy is always full of interest, and, if conducted with due caution and sufficient knowledge of all the attendant circumstances, may occasionally lead to important generalisations. But we must always bear in mind that adaptation to its special function is not the only cause of the particular form or structure of an organ; but that this form, as we see it, having in all probability been arrived at by the successive and gradual modification of some other different form, from which it is now to a greater or less degree removed, has other factors besides use to be taken into account. To take the case of the digestive organs, which may be considered as machines which have to operate upon alimentary substances in very different conditions of mechanical and chemical combination, and to reduce them in every case to the same or precisely similar materials, we might well imagine that the apparatus required to produce flesh and blood out of coarse fibrous vegetable substances would be different from that which had to produce exactly the same results out of ready-made flesh or blood; and in a very broad sense we find that it is so. Take a very large number of carnivorous animals belonging perhaps to different fundamental types, and a very large number of herbivorous animals, and, striking a kind of average, we shall find that there is pervading the first group a general style, if I may use the expression, of the alimentary organs different from that of the others. There is a specially carnivorous and a specially herbivorous modification of these parts. But if function were the only element of modification, it might be inferred that, as one form must be supposed to be best adapted and perfect in its relation to a particular kind of diet, that that form would be found in all the animals consuming that diet. But how different is this from being the case! Take the horse and the cow, for instance—two animals whose food in the natural state is precisely similar, and yet how different the structure of their alimentary canal and the processes involved in the preparation of their food! Take, again, the seal and the porpoise—both purely fish-eaters, who seize and swallow precisely the same kind of prey, in precisely the same manner—and see what a different arrangement of alimentary canal! If the seal's stomach is adapted in the best conceivable manner for the purpose

(a) Milne-Edwards, "Leçons sur la Physiologie et l'Anatomie comparée de l'Homme et de Animaux," tome vi., p. 101. 1860.

(b) "Essays and Observations on Natural History, Anatomy, Physiology, Psychology, and Geology." Edited by R. Owen. Two vols. 1861.

(c) "Leçons sur la Physiologie de la Digestion," par Maurice Schiff. 2 vols. 1867.

it has to fulfil, why is not the porpoise's stomach an exact *fac-simile* of it, and *vice versâ?* We can only answer, the seal and the porpoise belong to different groups of animals, formed on different primitive types, or descended from differently constructed ancestors. Just as we see in different parts of the world the same operations of agriculture and other industry carried on by very different instruments, and in very different manner, the result produced being at all events approximately the same, so we see a similar variety in animal structure; and the few modifications which seem required in the digestive process, from the comparatively small variety in the condition of the different alimentary substances met with in nature, carried on with almost endless variety in the instruments used. This principle will meet with abundant illustration throughout the course.

If all the minor modifications of the structure of the digestive organs are exclusively related to the special substances they have to operate upon, few things would be more remarkable than the facility with which animals will adapt themselves, when necessity requires it, to very different conditions of diet from those to which they are ordinarily accustomed. Thus, among wild animals there are many instances known of the food being changed from purely vegetable to purely animal matters, according to season and opportunities;(d) and among domestic and captive animals numerous experiments show how species purely carnivorous by nature will live apparently an indefinite time on bread or other vegetable substances; and herbivorous animals, on the other hand, can be fed on flesh without any apparent disturbance of their nutrition.

John Hunter found that a tame kite, when gradually brought to feed on bread alone, would thrive on it as well as on meat; and he kept a sea-gull for twelve months on barley.(e) Schiff found that rabbits would live perfectly well on the flesh of frogs, and, as is well known, in Iceland, when the natural food fails, cows and horses are fed for a considerable time exclusively on fish. I have also heard of the flesh of dead whales being used for the same purpose in the North of Scotland.

Schiff appears to have proved by numerous experiments related in his lectures above referred to,(f) in opposition to previous views, that the gastric juice secreted by the stomach of a carnivore, and by that of a herbivore, is identical in its chemical and physiological properties, as tested by its power of converting alimentary substances into peptones; and, moreover, that the product of digestion (the peptone), elaborated by the stomach of a herbivore and injected into the stomach of a living carnivore, is directly absorbed without undergoing any metamorphosis recognisable by reagents, and that analogous results are furnished by the converse experiments of nourishing a herbivoro with the product of the digestion of a carnivore. And when we consider the identity or close similarity of the chemical composition of the principal animal and vegetable alimentary substances, this is not much to be wondered at.

In discussing the subject of the relation of food to the construction of the digestive organs, it must be borne in mind that the vegetable substances occasionally taken either voluntarily by wild animals habitually carnivorous, or those used in the experiments just named, never belong to the class which mechanically and physically are either by their bulk or hardness most removed from animal tissues, but are succulent parts of plants, fruits, or pulpy farinaceous substances acted on by the digestive organs with almost the same facility as flesh itself. The alimentary canal of the carnivorous or omnivorous animals would not suffice to contain the necessary volume, or to act with sufficient intensity upon aliment presented in the comparatively innutritious and bulky form it is taken in by the pure grass-eaters, and it is among these latter that the principal deviations from the ordinary type of structure of the digestive organs will be found. Hence the mechanical, rather than the chemical, constitution of the food must be looked to in endeavouring to find a relation between the aliment of an animal and the conformation of the parts destined to act on that aliment.

The digestive apparatus of mammals, as in other vertebrates, consists mainly of a tube with an aperture placed at or near either extremity of the body—the oral and the anal orifice—and with muscular walls, the fibres of which are so arranged as by their regular alternate contraction and relaxation to drive onwards the contents of the tube from the first to the last of these apertures. The anterior or commencing portion of this tube is greatly and variously modified, in relation to the functions assigned to it of selecting and seizing the food, and preparing it by various mechanical and chemical processes for the true digestion which it has afterwards to undergo before it can be assimilated into the system. For this end it is dilated into a chamber or cavity called the mouth, and supported by a movable framework, which usually carries the teeth—especially hard organs, for the purpose of cutting, tearing, or grinding the alimentary substances into small particles. I hardly need in this theatre define the different parts known as the lips, cheeks, palate, fauces, and tongue, but must be permitted to recall your attention to two or three peculiarities connected with these structures as we know them in man.

One of these is the elevation of the mucous membrane of the front part of the hard palate into a few irregular wavy transverse ridges, which are interesting as presenting, slight or rudimentary indications of structures which we shall find far more strongly marked in nearly all mammals, and in some attaining a remarkable importance in relation to the functions of this portion of the alimentary canal. With regard to the tongue I would mention a pair of fringed projecting ridges or folds of the mucous membrane on the free part of the under surface, commencing near the apex, and diverging as they pass backwards on each side of the frænum. These are by no means constant, and are not described in ordinary works of anatomy, though, as in the specimen now exhibited, sometimes perfectly well marked. Also a group of nearly vertical fissures, with intervening raised ridges, placed on the sides of the organ, just in front of the attachment of the palato-glossal fold. These vary greatly in their condition and development, and generally pass insensibly into the well-known simple vertical linear arrangement of the papillæ common to the whole lateral border of the organ; but their import will be more clearly understood after the examination of the tongues of several other forms.

In connexion with the buccal cavity we shall have to consider an extensive and complex glandular apparatus which pours its secretions into it—secretions which constitute the fluid commonly known as saliva.

The whole apparatus consists of organs which have been variously classified, either according to their supposed function, their minute structure, or their general arrangement with regard to the other organs and tissues near which they are placed. As the first two methods still to some extent contain elements of uncertainty, it is most convenient for the present purpose to continue the old anatomical grouping into two classes:—1. The small glands embedded in the mucous membrane or submucous tissue lining the cavity, and which are of two kinds—the follicular and the racemose. 2. Those in which the secreting structure is aggregated in distinct masses removed some distance from the cavity, other tissues besides the lining membrane being usually interposed, and pouring their secretion into the cavity by a distinct tube or duct, which traverses the mucous membrane. To the latter alone the name of "salivary glands" is ordinarily appropriated, although the distinction between them and the smaller racemose glands is only one of convenience for descriptive purposes, their structure being more or less identical; and as the fluids secreted by all become mixed in the mouth, their functions are, at all events in great part, common.

(d) As one of the most recently recorded voluntary changes of diet among wild animals in adaptation to change of circumstances, I cannot forbear extracting the following interesting account, on the authority of Mr. T. H. Potts (see *Nature*, October 19, 1871, page 489), which has since been corroborated from other sources (*Ibid.*, February 1, 1872):—The kea of New Zealand (*Nestor notabilis*), one of the family of *Trichoglossinæ*, or brush-tongued parrots, called "mountain parrots" by the settlers—whose habit had previously been to range over shrub-covered heights and rock-bound gullies, gathering their subsistence from the nectar of hardy flowers, from the drupes and berries of shrubs, and also, perhaps, from insects found in the crevices of rocks or beneath the bark of trees, so that their aliment, though not wholly vegetarian, was yet such as called forth no display of boldness to procure a sufficient supply—since the establishment of sheep-farms in the districts they inhabit, were first observed to visit the "meat gallows" of the back-country squatters, and to feed upon the flesh of the dangling carcases of the recently killed sheep. But a still greater change soon came over their habits; for not only the dead flesh of the newly introduced mammals became an object of their search, but they were next observed to attack the living sheep. The birds are described as coming in flocks, singling out a sheep at random, when each alighting on its back in turn tears out the wool and makes the sheep bleed, till the animal runs away from the rest of the flock. The birds then pursue it and continue to attack it, apparently for the sake of the blood that flows from the wounds, till in many cases the unfortunate animal dies of exhaustion.

(e) In this case the muscular tissue of the gizzard acquired an abnormal development, as shown in the preparation still in the museum (Physiological Series, No. 523). This experiment may have been in Hunter's mind, when he writes, in one of his occasional notes, lately collected and published by Professor Owen—"I dare say the different manner of living gives rise to the different formation of the viscera"—("Essays and Observations," vol. ii., page 2)—in other words, modification of function precedes and causes modification of structure.

(f) Vol. ii., lecture 25.

Under the name of *salivary glands* are commonly included—1. The *parotid*, situated very superficially on the side of the head, below or around the cartilaginous external auditory meatus, and the secretion of which enters the mouth by a duct (often called *Steno's* or *Stenson's*) which crosses the masseter muscle, and opens into the upper and back part of the cheek. 2. The *submaxillary*, situated in the neck near or below the angle of the mandible, and sending a long duct forwards to open in the forepart of the floor of the cavity of the mouth below the apex of the tongue. These are the most largely developed and constant of the salivary glands, being met with in various degrees of development in almost all animals of the class of mammals. Next in constancy is (3) the *sublingual*, closely associated with the last-named, at all events in the locality in which the secretion is poured out; and (4), the *zygomatic*, found out in some animals, in the cheek just under cover of the anterior branch of the zygoma, its duct entering the buccal cavity near that of the parotid.

The intimate structure of these different glands is not altogether alike, and even that of the homologous glands of different animals, in those few in which it has been examined, does not appear entirely to correspond;(g) making any classification which may be proposed according to their structure in one animal by no means applicable to all.

The most obvious function common to the secretion of these various glands, and to that of the smaller ones placed in the mucous membrane of the lips, the cheeks, the tongue, the palate, and fauces, is the mechanical one of moistening and softening the food, to enable it the more readily to be tasted, masticated, and swallowed, though each kind of gland may contribute in different manner and different degree to perform this function.

Moreover, the saliva is of the greatest importance in the first stage or introduction to the digestive process, inasmuch as it dissolves or makes a watery extract of all soluble substances in the food, and so prepares them to be further acted on by the more potent digestive fluids met with subsequently in their progress through the alimentary canal.

In addition to these functions, it seems now well established by experiment, that saliva serves in man and many animals to aid the digestive process, particularly by its power of inducing the saccharine transformation of amylaceous substances.

The special properties of the secretions of the different glands above named has naturally been a subject of laborious and repeated investigation by physiologists. It seemed at one time to be established, that the starch-transforming property was only acquired when the secretions of the various glands were mixed together in the mouth; and that when each was taken pure, as secreted, this power was not exhibited. But more recent experiments have clearly shown that this is not the case, as human saliva taken direct from the parotid duct, or directly from the submaxillary duct, without any admixture with each other or with the buccal mucus, possesses the diastatic power in a high degree. It has also been shown that the secretion of these glands, in the few animals in which it has been examined, possesses this property in an extremely varying intensity. In the dog and cat it is, indeed, present, but feeble and slow of action; in the sheep, the ox, and the horse it is scarcely more strongly pronounced, though, it must be remarked, experiments by different observers do not always coincide on these points; in the guinea-pig it is said to be more active than in man; in the rabbit, while it is not present in the secretion of the submaxillary gland, a peculiar small lobule near the parotid, called the *masseteric*, possesses the property in a particularly active degree. Even at some periods of life, as in early infancy in man, and in the corresponding time in most, but not all animals, this power does not exist in the saliva of glands which afterwards exhibit it in the highest degree. Moreover, this and other properties of the saliva are modified by different conditions of the constitution, and by the influence of the different nerves by which the glands are supplied, as is frequently demonstrated by experiments.

These results, limited as they are at present to a few species of animals, are of great importance to us, as showing how the function of a part may be modified according to the necessities of its possessor without any apparent alteration in its structure,(h) and should serve as a wholesome caution in drawing inferences from the large or small development of any particular gland, since its secretion may serve very different purposes in the economy of different animals.

Even the distinctions that seemed tolerably clearly established by Bernard, between what may be called the mechanical functions of the secretion of the parotid and the submaxillaries, the former being exclusively related to the functions of mastication, and the latter to deglutition and taste, and also the views of the same great physiologist upon the special stimuli required to call the secretion of each into action, are said by other experimentalists to require considerable modification.(i) There is little doubt, however, that, as a general rule, in mammals the parotid saliva is most watery in its composition, and that of the submaxillaries, and still more the sublingual, contains more solid elements, and is more viscid; so much so, that some anatomists consider the latter, together with the small racemose glands of the cheeks, lips, and tongue, as *mucus* glands, retaining the name of *salivary* only for the parotid.(k) We shall find these peculiar properties developed in a most remarkable degree in some animals—as, for example, the great secretion of excessively viscid saliva which lubricates the tongue of the anteaters and armadillos, associated with enormously developed submaxillary glands; while, on the other hand, the parotids are of great size in those animals which habitually masticate dry and fibrous food.

After the preparation which the aliment has undergone in the mouth—the extent of which, as we shall see, varies immensely in different forms, being reduced almost to *nil* in such animals as the seals and cetaceans, which, to use the familiar expression, "bolt" their food entire—it is swallowed, and is carried along the œsophagus by the action of its muscular coats into the stomach.

In the greater proportion of mammals this organ is a simple dilatation of the alimentary canal, forming a bag having much the same general shape as that so well known in man; but in others it undergoes remarkable modifications and complexities, the description of which will naturally occupy a prominent part of the course.

The walls of the stomach are thickly beset with tubular glands, which are now generally considered to belong to two distinct forms, recognisable by their structure and different in their function—the most numerous and important secreting the gastric juice (the active agent in stomachic digestion), and hence called peptic glands; the others only concerned in the elaboration of mucus. The relative distribution of these glands on different regions of the walls of the stomach varies greatly in different animals, and until it has been ascertained we shall not be able to form a correct idea of the mode in which the organ performs its functions. In man, as is well known, the peptic glands are distributed everywhere except in the portion next to the pylorus; in many animals the arrangement is quite the reverse. I ought to mention that although the distinction commonly made between the peptic and mucous glands seemed as well established as any fact in physiological anatomy, doubts have recently been thrown upon its validity.(l) But however this may be, there can be no question but that large tracts of the stomachal mucous membrane in many animals do not secrete a fluid having the properties of gastric juice.

The action of this fluid is mainly exerted upon the azotised or nitrogenous elements of the food, which it dissolves and modifies so as to render them capable of undergoing absorption, converting them into substances technically called peptones. In this form a certain portion is absorbed by the bloodvessels of the stomach, but the greater part passes through the pylorus into the intestinal canal, where it comes in contact with the secretion of a vast number of small glands, called the "crypts of Lieberkuhn," somewhat similar to those of the stomach, and also of several special glands of a different character—namely, the small racemose, duodenal, or Brunner's glands, the pancreas, and the liver.

The intestinal canal varies greatly in relative length and capacity in different animals, and it also offers manifold peculiarities of structure—sometimes being a simple cylindrical tube of nearly uniform calibre throughout, but more often being subject to alterations of form and capacity in different portions of its course; the most characteristic and constant being the division, as in man, into an upper and narrower, and a lower and wider portion, called respectively the *small* and *large*

(g) See Heidenheim, "Studien der Physiologische Institut zu Breslau," Heft iv. 1858.—Abstract in *Brit. and For. Med.-Chir. Review*, July, 1868, p. 260.

(h) I have said *apparent* alteration of structure, so as not to exclude alterations not recognisable by any known means of research, or only by such minute investigations as have as yet been applied to comparatively few of these tissues, and probably still await confirmation.

(i) See Schiff, *op. cit.*, tome i.

(k) Henle, "Handbuch der Systematischen Anatomie des Menschen," vol. ii. 1862.

(l) By Ebstein (Pflüger's Archiv., iii., 565).—See abstract in *Journal of Anatomy and Physiology*, May, 1871, p. 407.

intestine—the former being divided quite arbitrarily and artificially into *duodenum*, *jejunum*, and *ileum*; and the latter into *colon* and *rectum*.

One of the most striking peculiarities of this part of the alimentary canal is the extremely frequent presence of a diverticulum or blind pouch—*caput cæcum coli*, as it is called in anthropotomy, generally abbreviated into *cæcum*—situated at the junction of the large and small intestines: a structure in which we shall find immense variety of development, from a mere rudimentary bulging of a portion of the side wall of the tube, to a huge and complex sac, exceeding in capacity the remainder of the intestinal canal. When greatly developed, as in many herbivorous animals, it cannot fail to exercise some important influence upon the digestive process, and has been compared by some physiologists to a second or complementary stomach.

Considerable light has been thrown upon its function by the ingenious observations of Schiff,(m) which are of such interest in relation to comparative physiology that it will be worth while to give a brief abstract of them.

He maintains, in the first place, that the gastric juice can exert no peptic or digestive influence, unless the blood from which it is secreted is previously charged with some "peptogenic" substance. Most aliment soluble in water affords such peptogenic substances. The action of these substances upon the secretion of the stomach is the same, whether they are absorbed by the stomach itself or by the large intestines, or injected into the blood, but not if absorbed by the small intestines. In the latter case the peptogens appear to lose their property in the mesenteric glands, or at least before they reach the thoracic duct. The nourishment of ruminants, although it contains a large quantity of matters soluble in water, is very refractory to the action of pepsine; it requires, therefore, a very energetic gastric juice to digest it, and to produce this much peptogenic substance must be introduced into the blood before peptic digestion can take place. This is accomplished by the abundant secretion of saliva, during the double mastication, dissolving the soluble parts of the food, and by the extended absorbing surface of the first three stomachs, which allow a large quantity of peptogenic matter to be taken up, and a considerable preparation of active gastric juice to be made, by the time the food finds its way into the fourth or true digestive compartment.

Now, the ruminants, as we shall see, have all small cæca, but the herbivorous animals, which have simple stomachs, and do not ruminate, as the horse and the hare, have enormous cæca; and this organ Schiff conceives, and appears to have proved experimentally, has the same function in permitting the absorption of peptogenic substances into the blood which the first compartments of the stomach perform in the ruminant—only, of course, it is the residue of the food after passing through the stomach and small intestines, from which all the peptogenic substances have not been extracted, which continues to give them off for the elaboration of material for the digestion of fresh food taken into the stomach; so, though the process is analogous, it is not quite the same.

The large superadded non-digestive compartments of the stomach, combined with total absence of cæcum, in the hippopotamus afford a striking illustration of these views, to which we shall probably return at a later part of the course.

The cæcum of man presents so remarkable a deviation from the normal type of this organ that it will be desirable to recall your attention for a few moments to its characters. Fortunately its development is quite conclusive in showing its relation to that of other animals. It is at first a simple conical projection from one side of the intestinal tube. It gradually lengthens, and, as it does this, the terminal portion, not keeping pace in its growth with the base, becomes narrower in calibre. This is the condition it presents in the preparation before you, taken from a fœtus between the sixth and seventh months. The three longitudinal bands so characteristic of the adult human colon are scarcely visible, but as they become developed it will be seen that they all terminate in the narrow apex of the cæcum. For the sake of better understanding the changes that subsequently take place, and comparing them with those that occur in other animals, it will be desirable to give them definite names. One, which lies on the side of the colon into which the ileum enters, may be called *postero-internal*; this is the least strongly developed. One on the front side of the ascending colon is the *anterior*; this is the widest. The other is the *postero-external*. These divide the colon and cæcum into three tracts, which may be designated *anterior*, *external*, and *posterior*. Now, the further changes that take place to convert the cæcum of the fœtus into that of the adult are the gradual narrowing of the whole of the cæcum, except the basal portion—or, perhaps, instead of narrowing, I should say comparative arrest of growth—until it assumes the form of a slender tube of uniform calibre, commonly called the vermiform appendage, while the basal portion grows with the rest of the large intestine, and constitutes what is commonly called the cæcum. But simultaneously with this change another takes place, which completely alters the formation of the organ. This consists in an apparent shortening of the lateral longitudinal tracts, especially the postero-internal and the postero-external, while the wall of the intestine constituting the external tract continues to grow out of proportion to the other parts. Hence it results that the true apex of the cæcum, or the vermiform appendage, as it is now called, is drawn (as it were) upwards and slightly backwards (supposing the colon in its normal position in the upright body), and is placed in a somewhat varying situation near to the entrance of the ileum; and the bulging of the external tract forms a kind of false cæcum with a rounded apex, which does not in reality correspond either to the true apex of the infant's cæcum, or to that of the large majority of animals.

It is important to recall these changes in the human cæcum, because we shall find several stages of them permanently retained in the adult state in certain animals.

Besides the external form of the intestinal canal, we shall have to consider the various modifications of its lining surface, especially in relation to the different contrivances for increasing the absorbing surface, without adding to the general bulk of the organ—such as the villi and the valvulæ conniventes of man, and folds having similar functions in many animals—and also, as far as they are known, the modifications of the various glands which pour their secretion into its interior.

Of these, as in the case of the buccal cavity, there are many which are embedded in the mucous membrane lining the cavity, and others which form distinct organs, communicating their secretion by means of more or less elongated ducts. Of the former, I have already mentioned the crypts of Lieberkuhn and the duodenal racemose glands. The crypts are found in all parts, from the stomach to the anus; but the former, as their name implies, are confined to the pyloric extremity of the intestine.

Other structures in the mucous membrane, about the nature of which there is still much uncertainty, are the solitary and the agminated glands, the latter known commonly by the name of "Peyer's patches." These were formerly supposed to be secreting organs, which discharged some kind of fluid into the intestine, but are now more generally considered to belong to the group of structures of somewhat mysterious function of which the lymphatic and lacteal glands are members. The solitary glands are found scattered irregularly throughout the whole alimentary tract; the agminated, on the other hand, are always confined to the small intestine, and most abundant in its lower part. They are subject to great variation in number and in size, and even in different individuals of the same species vary in character at different periods of life, becoming, like the mesenteric glands, atrophied in old age, though not to the same degree(n)—a point which must be borne in mind in noting their condition in the dissection of animals.

A few observations upon the general characters of the remaining parts of the digestive apparatus must be reserved for the next lecture.

(m) *Op. cit.*, vol. ii., page 280, *et seq.*

BABY FARMS.—The existence of a "baby farm" was discovered a few days ago in Marseilles by a novel species of detective. A mastiff was seen carrying the arm of a newly born infant in his mouth, and his movements being watched, led to the arrest of a woman who confesses to have exercised this calling for thirty years.

A SUCCESSOR TO THE "ZOUAVE."—Mr. Strong, an American, has set up business in Marseilles for miraculous cures, like the Zouave Jacob. Mr. Strong refuses payment, and his curative mode consists in laying the hands, etc. An interminable procession of invalids daily wend their way to Mr. Strong's villa on the sea-side, and the doctors intend to petition against what they call the "thaumaturgist."

YELLOW FEVER has been committing ravages among the shipping at Pernambuco, and the port has been declared infected. Cholera has broken out in Revel, and also in Cerigo, one of the Ionian Islands.

(n) See Rolleston, "Post-mortem examination of a man supposed to have been 106 years old." (*Brit. and For. Med.-Chir. Rev.*, vol. xxxi., 1863.)

ORIGINAL COMMUNICATIONS.

CASE OF PERFORATING ULCER OF THE STOMACH—DEATH UNDER PECULIAR CIRCUMSTANCES.

By ROBERT DRUITT, M.R.C.P. Lond., etc.

The following case was mentioned by me the other evening at the Association of Officers of Health, in illustration of Dr. Bernays' remarks on the necessity for greater care and formality in conducting post-mortem examinations for Medico-legal purposes:—

About 11.30 p.m., August 30, 1862, I was asked to go round to the "Home School," a charitable boarding-school for girls, in Market-street-mews, Mayfair. I went, and was shown a girl lying on a bed perfectly dead, and so cold as to give me the impression that she had been dead for some hours. The contents of the stomach were running out of the mouth, and the abdomen intensely distended and tympanitic.

I was told that deceased was named Elizabeth S., 13 years of age, and of habitually bad health; that she had been that day with all the school-children of the district, in vans to take their annual holiday in Richmond-park; that she was very sick on her way home, was helped upstairs, and put to bed directly. My visit was within half an hour.

The next morning I learned to my surprise that the schoolmistress had sent, after I left, for a well-meaning clergyman, whose wife, a kind of fussy Lady Bountiful, accused me, on the schoolmistress's testimony, of having neglected any means for the recovery of the child, who, she said, was alive during my visit and spoke afterwards. This woman also declared that the child had died of cholera, and that the corpse must be removed immediately; so the poor clergyman was walking about for half the night till he got it removed to the mortuary of the St. George's Workhouse in Mount-street. This was probably the result of some brandy-and-water with which the mistress was relieving her hysterical feelings, even during my visit.

Of course an inquest was held, and I received a summons and order to make a post-mortem examination; but as I was in some respects a party accused, I was glad to obtain the presence of Mr. W. Fuller, of Piccadilly, Dr. Bloxam, and his assistant, Mr. Walker.

The post-mortem examination was made forty-two hours after death. The body rather thin; depending parts livid; pupils dilated; yellowish liquid running out of mouth; no marks of injury. On cutting into the distended abdomen a large quantity of gas escaped. Small intestines distended, pinkish; stomach not very distended, and of dusky hue. Various parts of the intestines down to the bladder were covered with a greyish layer, which looked at first sight like recent exudation, but was easily wiped off, and put by for examination.

After this preliminary inspection of the abdominal cavity, the chest was examined, and there were found general adhesion of both lungs to pleuræ; tubercular deposit in both apices of lungs and in left bronchial glands; small vomica in right apex. Liver healthy, but adherent to diaphragm; gall-bladder full. Stomach dusky, thin, and unhealthy-looking; evident marks of ulceration on anterior surface of lesser curvature; no general signs of irritation of the mucous membrane, but an oval ulcer, one inch by half an inch, which had at one point gone through the peritoneum by a very small oblique aperture just admitting a probe. The stomach contained a large mass of food, which was removed for examination. The intestines were adherent to each other and to the peritoneum at several points. There was an old diseased and ulcerated patch near the vermiform appendage, a considerable ulcer in the transverse colon, and one cicatrised in the descending colon. The large intestine contained some healthy fæces at its upper extremity, and no liquid.

The contents of the stomach consisted of well-masticated food, including bread, muscular fibre, apple in large quantity, chicory, watercress, lettuce, with one or two vegetables that I was not able to identify; but the most remarkable portion was a quantity of hazel-nut kernels, well masticated, and swallowed along with their brownish husk, which is a beautiful microscopic object.

The case was evidently that of a child with scrofulous disease of the stomach and other organs, who, out on a picnic, employed her time in eating apples and nuts; the stomach became distended with flatulence, and gave way at a diseased spot, *blowing out* its gas into the peritoneal cavity, and with it a small quantity of masticated nut-kernels, which, at a first glance, had a curious resemblance to a coating of lymph. But it is clear that the person who was accused (however ignorantly and falsely) of not taking proper steps to avert death was not the person to whom an order for making a post-mortem examination should have been directed.

37, Hertford-street, W.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. III.

(With Photo-lithographic Plates.)

The Production of the Percussion, Tidal, and Dicrotic Waves—Conditions influencing the Development of each—The Analysis of Pulse-Tracings.

Having now a fixed phraseology by which to describe the various parts of a pulse-tracing, and having briefly indicated the theories held to account for their production, the schema may be appealed to in support of these statements. The first point requiring proof is, that the vertical upstroke is due to percussion. The first nine tracings on the plate accompanying this paper were obtained from the schema. Fig. 1 was obtained from the descending aorta with the capillaries moderately dilated; in this tracing, immediately after the sudden vertical upstroke, an almost equally sudden fall of the lever may be seen, followed immediately by another abrupt rise and succeeding slower collapse. The tracing tells its own tale; it is evident that the first elevation of the lever cannot be produced by the passage of a wave of fluid through the artery, for if it were, the collapse would be slow and gradual; it is probably produced by the jar transmitted through the blood-column, and imparted to the arterial wall. In Figs. 4 and 5, from tracings of the brachial, the percussion upstroke is not so markedly separated from the remainder of the tracing, though the second elevation of the lever is probably caused by the tidal wave. That this elevation of the lever is not the dicrotic wave or diastolic expansion, but is due to some vibration of the blood-column during systole, is proved by Fig. 5. In this case the cardiac systole was prolonged: this is indicated by the prolonged and sustained expansion of the artery, after the second elevation of the lever; it, therefore, cannot be the dicrotic wave which occurs after the closure of the aortic valves and during diastole, but must probably be due to the interval elapsing between the transmission of the percussion-stroke and the tidal wave.

Figs. 7, 8, and 9 were obtained from the radial artery; Fig. 7 will be discussed hereafter; in Figs. 8 and 9 the percussion-stroke may be well seen, markedly separated from the tidal wave, more so even than in Figs. 1 and 2. Compression is added to percussion in Fig. 9, the outlet being blocked by the contracted capillaries; the percussion-wave is therefore transmitted more slowly, as the distal end of the blood-column is well-nigh immovable, and cannot be jerked forward. In another series of experiments, tracings were obtained from the aorta, brachial, and radial arteries, in which the rapidity, duration, and force of the systole were equal. The time that intervenes between the transmission of the percussion and tidal waves gradually increased, as the distance from the heart at which the tracings were taken increased; for while the percussion-impulse is transmitted through a column of fluid, the walls of which are rigid, almost instantaneously (Dr. Sanderson calculates 90 feet per second), the tidal wave is much slower; accordingly, the percussion-wave is transmitted almost instantaneously throughout the system, and the tidal wave follows it at an interval which increases with the distance of the artery from the heart.

Again, proof of the first upstroke being due to percussion may be obtained by altering the mode of contraction of the heart in the schema, making it less sudden in its commencement; the percussion-wave may by this means be decreased by diminishing the sharpness of the contraction, so that at last no part of the upstroke is vertical, but the whole oblique and the apex rounded, owing to the disappearance of the percussion-wave, the tidal wave alone remaining. The percussion-

wave may also be done away with by obstructing the aortic orifice, the contraction of the heart remaining the same as in the normal tracing; the upstroke becomes sloping, having also a rounded summit, and the tidal wave alone remains. A similar tracing may be obtained as a pathological condition.

Observations made on the human subject give similar evidence. One of my fellow-students, Mr. T. Eastes, kindly assisted me in these and other experimental tracings; the tracings in the next section of the plate are from his pulse. In Figs. 10, 11, and 12, taken from the external carotid, brachial, and radial arteries respectively, both the percussion and tidal waves are well marked; the tidal wave is seen to diminish in size the farther the artery is from the heart, so that in the radial pulse the two almost become merged in one, and the tidal wave is only just discernible. It may also be noticed that the tidal wave follows the percussion-wave at a shorter interval in the carotid than in the brachial; and a shorter in the brachial than in the radial.

Admitting, then, the presence of percussion as an element in a tracing, that of the tidal wave will not require much proof. The fact of the production of a wave having a sloping upstroke and rounded summit, and requiring a short interval of time for its transmission through a system of tubing, is plainly shown by the well-known experiment of Marey's, quoted by Dr. Sanderson in his lectures on the Arterial Movements, in which three polygraphic levers are applied to coils of tubing, at increasing distances from a bag representing the heart, contracted by the hand; the levers writing above one another and simultaneously, on a revolving cylinder. By this means it was found that the maximum of distension was obtained in the distal portion of the tubing later than in the proximal: that the expansion was more gradual and the wave smaller in the same position. Similar results may be obtained from experiments made with the schema. In these it is seen that the tidal wave is larger in the aorta than in the brachial, and in the latter than in the radial, and also its relative proportion to the percussion-wave is found to diminish. Thus, in the aorta it is larger than the percussion-wave, in the brachial nearly the same size, and in the radial considerably less. Again, by referring to the plate it will be noticed that it is larger when the capillaries are in a normal condition—*i.e.*, in a state intermediate between dilatation and contraction—than when they are either fully dilated or tightly contracted; for in the former state it passes along without fully distending the wall of the vessel; in the latter the tension, being already raised almost to its utmost, will not permit a much further increase.

Before leaving the subject of percussion and tidal waves, it must be stated that both are not always present in the same pulse; in fact, perhaps in the larger proportion they are not. The tidal wave may be merged in the percussion-wave; that this really takes place, experience will soon teach. In a series of pulses, the tidal wave, well marked in some, is diminished in others, till it becomes only just perceptible, and at last completely disappears. This has been before referred to as taking place in the different arteries in one subject. It may be seen to occur in the radial arteries of different subjects by referring to the plate. In Fig. 17 both are clearly discernible; in Fig. 18 the tidal wave has become much less marked; in Fig. 21 it has almost completely disappeared, and can only be discovered by the most careful scrutiny; as a slight fulness in the downstroke succeeding the primary expansion, it is most easily seen in the last wave in this figure.

Again, the percussion-wave may be lost, or merged in the tidal wave. This takes place where the action of the heart is less sharp and sudden than usual, or the arterial tone particularly good. In Fig. 20, where the contraction of the heart commences more gradually, the upstroke is sloping, and the tidal wave alone remains. If the upstroke had been vertical, there would have been the usual interval between the percussion and tidal waves. The presence, then, of the percussion-wave depends on a sharply contracting heart and in deficient arterial tone. It is produced both by hypertrophy and under excitement, and is found in any condition which increases the sharpness of the cardiac contraction, or often as a normal element.

Thus far we have only studied those phenomena of the pulse that occur during systole, and we have arrived at that point in the pulse-tracing which corresponds to the closure of the aortic valves. The next event that occurs is what has previously been described as dicrotism or the diastolic expansion. The fact that dicrotism, or, to adopt Dr. Sanderson's more preferable term, the "diastolic expansion," does really occur in the human pulse, and is not due to an imperfection in the instrument employed to obtain a pulse-tracing, has been proved by M. Landois by aid of his sphygmoscope. In this instrument the column of gas supplied to a fine burner is acted upon by the pulse, the movements of which are imparted to the flame, which may be seen to undulate, each increase in the flame corresponding to the main upstroke in a tracing being followed by a smaller one coincident with the diastolic expansion.

The theories that have been formed to account for dicrotism are almost innumerable. Albers attributed it to a second contraction of the heart; Galen, to the vibrations produced in the walls of the arteries by the afflux of blood; Parry and Hammernjk consider it to be due to the alteration in the length of the arteries, which are curved during systole and straight during diastole; Volkmann thought the contraction of the heart was transmitted by two waves of unequal rapidity—one in the blood, the other in the arterial walls; Marey ascribed it to the check received by the blood in the descending aorta by the bifurcation of the common iliacs, causing a rebound throughout the whole arterial system, except in the lower extremities, where he said it was absent; Naumann ascribed it to the stopcock action of the semilunar valves sending a shock throughout the blood column, similar to that noticed in a column of water on suddenly turning off a tap. Koschlakoff gives some interesting results on the production of dicrotism, as shown by pumping a stream of water through elastic tubing. From these he argues that dicrotism depends on a disturbed equilibrium of tension of the artery, and occurs in its walls. Dr. Sanderson holds that the maximum of distension occurs in the peripheral arteries and arterioles at a time when the larger arteries are contracting; that, while in the "largest arteries the expansion is ebbing, in the smallest it is culminating, so that for an instant the pressure is greater in the latter than in the former: there is but one effect possible. The restoration of equilibrium must take place by increase of pressure towards the heart, and diminution towards the periphery. This restoration of equilibrium constitutes the second beat." Again, Dr. Sanderson remarks that dicrotism is characteristic "of that condition of the circulation in which the arterial pressure is diminished while the venous is increased," and that a small amount of blood expelled from the ventricle, or dilated capillaries allowing free passage of the blood, increase it. I shall not attempt in this place to disprove any of the foregoing theories, but shall proceed to state those which I have been led to form, and the reasons which directed me to them.

It has been stated above that dicrotism is due to the contraction of the distended elastic walls of the aorta, which takes place immediately on the termination of systole. During the contraction of the heart the blood-column is first urged forward, but soon checked by the resistance it meets with in the smaller arteries and capillaries; but as the heart continues to contract, the blood forced out of it must go somewhere, and, accordingly, makes room for itself in the arterial system by distending the elastic coat of the aorta; this, by its contraction, which takes place immediately on the termination of that of the heart, returns to the blood the motive force expended in its dilatation, thus closing the aortic valves, and producing the dicrotic wave in the arteries. I shall endeavour to prove that dicrotism is merely supplemental to the heart's action, and is, indeed, a second tidal wave passing through the arteries, produced by the aortic contraction.

It will be noticed that, though in most of the tracings in Pl. i. obtained from the schema the diastolic expansion is faintly perceptible, yet in none does it attain to its usual importance. The reason of this may be found in the fact that the tubing used in the construction of the schema consists of thick vulcanised indiarubber; it is but slightly distensible, and not to be compared with the beautifully soft, elastic coat of the arteries, more especially of the aorta; and therefore, though well calculated to exhibit the effects of percussion, is incapable of transmitting a well-marked dicrotic wave. Proof of this I have obtained in the following manner:—A thin, easily distensible indiarubber bag has been introduced into the ascending aorta just above the aortic valve, in hopes of imitating the distension of the elastic coat of the human aorta and its effect. The bag has been surrounded by netting to prevent its overdistension. Now, on watching the aortic valve in the schema, it may be seen to become extremely tense immediately after the termination of the systole, and then, during the remainder of diastole, tension is diminished; the elastic bag is also seen to become greatly dilated during systole, and to contract during diastole. On applying the finger to it, a double beat is distinctly felt—one apparently produced by systole, the other by the recoil from the valves. The tracings represented in the accompanying woodcut were obtained from the schema thus

modified. All of them are characterised by a well-marked dicrotism, although the force, rapidity, and duration of the cardiac contractions were the same as before. The dicrotism, therefore, must be due to the alteration in the elasticity of the aorta. The effect of percussion on the pulse-wave is less strongly marked, owing to the increased distensibility of the aorta; for, instead of the blood being moved forward as a solid column, the lateral resistance being less than that offered to its onward

Fig. 5.—Capillaries dilated; contractions slow.

Fig. 6.—Capillaries dilated; contractions rapid.

Fig. 7.—Capillaries normal; contractions slow.

Fig. 8.—Capillaries normal; contractions rapid.

Fig. 9.—Capillaries contracted; contractions slow.

Fig. 10.—Capillaries contracted; contractions rapid.

movement, some force is lost in the lateral distension of the column. The percussion-impulse is, therefore, best transmitted in rigid tubing. It is, however, by no means lost now, though not so exaggerated as previously. In Fig. 5, previous to the dicrotic upstroke, a slight rise and fall of the lever may be seen; this is probably due to the vibration imparted to the blood by the shock produced by the closure of the aortic valves and the rebound that takes place from them. It is, indeed, a second percussion-wave, and is followed by a second tidal or dicrotic wave. It is often seen in tracings obtained from the schema, or from the human pulse.

That dicrotism occurs at the termination of the systole and closure of the aortic valves is demonstrated by Fig. 5, Pl. i., where, the systole being prolonged, the diastolic expansion is delayed till its termination. During the downfall of the lever, which occurs throughout the remainder of diastole, there is seen another slight undulation; this, again, is due to the elastic coat of the aorta, and is usually seen in the human pulse. It is virtually a second dicrotic wave, and is produced by another slight expansion and contraction of the aorta. The expansion is caused by the recoil of blood from the capillaries, increased tension being produced in the proximal arteries, requiring a secondary contraction of the elastic coat.

From the above results the primary cause of dicrotism may be deduced, but there still remains the question to be solved—Under what conditions does it vary? This, again, has been one of the most disputed points in sphygmography; but by the aid of the schema I think we shall be able to answer it to a great extent. Three terms have been used to describe the various degrees of dicrotism. When the aortic notch, that is, the point from which the diastolic expansion commences, does not reach as low as the respiratory line—*i.e.*, the line drawn through the bases of the percussion upstrokes—the pulse is said to be *hypo-dicrotous* (an example of this may be seen in Fig. 4, Pl. ii.); when the aortic notch is level with the respiratory line, the pulse is called *dicrotous* (as in Fig. 5, Pl. ii.); and when it falls below the line, *hyper-dicrotous* (as in Figs. 6 and 7, Pl. ii.). The first two of these terms do not well convey the intended meaning, and are liable to misconception, for any pulse in which the diastolic expansion is perceptible is dicrotous, and in these papers I propose to use the term *dicrotous* instead of hypo-dicrotous; and, when wishing to indicate that the aortic notch reaches the respiratory line, the term *fully dicrotous* will be employed; the expression hyper-dicrotous being retained, with its original meaning.

(*To be continued.*)

CHLORAL IN EPILEPSY.

By NATHANIEL ALCOCK, L.C.P.I.,
Assistant-Surgeon 35th Regiment.

The speculations as to the vascular condition during epilepsy, drawn from experimental pressure upon the arteries leading to the brain, and from the results of hæmorrhagic anæmia of that organ, and the belief that the most immediate cause in the induction of a fit is a sudden contraction of the vessels, are in a great measure borne out by the action of chloral in antagonising the epileptic seizure. It is now very widely accepted that the rigors preceding the hot and sweating stages of intermittent fever are coincident with spasm of the capillaries of the system. If, then, it can be shown that epilepsy is interchangeable with this fever paroxysm, it may reasonably be inferred that the immediate precursor in either case is the same; and if, in addition, it appears that such interchange of symptoms occurs during the lessening violence of the epileptic disease, it would point to the conclusion that the rigors are a diminutive of the fits; and, finally, if such reduction of morbid force succeed the use of a given drug, it may fairly be attributed to the action of that substance.

Private D., 35th Regiment, otherwise perfectly healthy, is subject to occasional epileptic fits, originated, in the first instance, by a blow on the head from a falling block on shipboard, and which are easily reinduced by the abuse of stimulants. Was admitted on December 16, at 9 p.m., at the conclusion of a fit.

On the 17th, had a fit at midnight.

On the 18th, had a fit at 3 p.m., and got fifteen grains of chloral, with half a drachm of ether, at 8.30 p.m.

On the 19th, began to take bromide of potash, eight grains three times a day, and at 3·30 p.m. had, instead of a fit, an attack exactly resembling ague, the duration of the rigors and hot stage being about three-quarters of an hour, and being succeeded by profuse sweating. Chloral, twenty-five grains at bedtime.

On the 20th the rigors recurred at 3 p.m. Chloral was repeated at night, and the rigors returned at 3 a.m.

On the 21st the rigors were postponed to 9 p.m.

On the 22nd they were averted.

On the 23rd the chloral was omitted, and at 6 p.m. on the following day the fits relapsed *in the epileptic form*, with complete unconsciousness. All treatment being suspended, the rigors reappeared no more, but the fits subsiding with a regular cadence of prolonged intermission and lessened intensity, ceased altogether in about ten days. From this it seems probable that epilepsy and rigors are but major and minor degrees of the same condition, and that chloral has the power of relaxing the offending capillaries.

Private S., 73rd Regiment, hereditarily epileptic, was under treatment on August 13 for blistered feet, and, seeing a man in the same ward seized with epilepsy, was thrown into a fit. During seven weeks the fits recurred, always in the evening, and at uncertain intervals, never exceeding four days.

From October 4 to 8 five grains of chloral were given three times a day; yet a fit was repeated on the 8th.

Continuing the small doses daily up to the 12th, half a drachm of chloral was given two hours before the expected relapse, and the fit was thereby postponed.

This was repeated on the 13th and 14th with success; but, notwithstanding the exhibition of the medicine on the 15th, a fit occurred at 8.30 p.m.

For the three succeeding days eight grains were given three times a day; and on the 19th half a drachm two hours before the time of the anticipated attack. The fit was averted, but in its stead a profuse perspiration broke out.

On the day following, after a similar dose, and at the same time, diaphoresis again took place.

On the two succeeding days, the same amount of the medicine being given, neither a fit nor sweating occurred.

On the day following, two hours after the administration of the chloral, a very slight fit was developed.

All treatment was then suspended, and for more than two months the attacks have not been renewed. The influence of chloral in combating the epileptic propensity is therefore powerful.

Sheffield.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

LONDON HOSPITAL.

CASES OF LUMBAR COLOTOMY IN MR. MAUNDER'S CLINIC.

Case 1. *Malignant Stricture of Rectum.—Case* 2. *Tertiary Ulceration of Rectum.*

The plan of clinical instruction adopted by Mr. Maunder is both didactic and suggestive, and is carried out partly at the bedside and partly in the theatre. Every new case is thoroughly investigated with the class, the history is listened to, the leading facts commented on, and the proper value assigned. Then the objective and subjective symptoms are noted and investigated, the posture of the patient being especially remarked. All possible sources of error are mentioned. While this is going on the students are encouraged personally and collectively to examine and form opinions upon certain prominent features; and should the diagnosis not be evident, Mr. Maunder frankly says so, and throws out suggestions for the consideration of the students until the next visit. Dressers and others are also invited to observe certain facts, and to manipulate parts, short of causing discomfort to the patient, in order that each and all may take an interest and learn something in "going round." Questions are also asked to test the knowledge of the student. Once a week during the winter session a clinical demonstration is given by Mr. Maunder in the theatre. When possible, a case that has proved fatal, and from which the pathological specimen has been procured, is chosen for comment. In this way most is learnt; having heard the history, noted the symptoms, watched the progress of disease in the ward, and now seeing the morbid changes in the organs, the student may be said to have seen the case from beginning to end. On another occasion, a case which has been carefully investigated at the bedside, and with which the class is familiar, is more fully discussed than many circumstances will otherwise admit of, and chalk and the blackboard are called in to aid the explanation. The other method, which Mr. Maunder learnt from the late Professor Syme, consists in having a patient or patients in the theatre. This is very instructive up to a certain point (one cannot always speak freely before a patient), especially where it is desirable to contrast diseases which may be mistaken the one for the other when seen separately—as in the case of chancre; or when the same disease can be shown in different stages, as was exemplified in Mr. Maunder's first clinical lecture, as Surgeon, when three cases of disease of the knee-joint could be brought into the theatre.

For the following report we are indebted to Mr. Stanley A. Gill, House-Surgeon:—

Case 1.—G. S., aged 41, formerly a sailor, suffered from dysentery about twenty years ago. Until within nine months he was quite well, when he was seized with diarrhœa. About six weeks after this he used to pass blood in his motions. He has had very little pain, but has lost flesh very fast for the last six months, and has become very weak. Upon admission, January 9, 1872, he complained of intermittent pains at the lower part of his abdomen, and a frequent desire to go to stool, the motions being fluid, and containing blood at times. He is emaciated and feeble; his appetite is bad; his countenance expressive in a marked degree of the cancerous cachexia. Around the anus is an epithelial growth. On passing the finger into the rectum, a stricture which will just admit its tip is felt about two inches within the anus. The portion of bowel below the stricture was dilated and smooth, its walls and the strictured portion being hard and fixed. He had incontinence of fæces and overflow of urine. A nutritious diet and tonic medicines were ordered.

January 12.—Mr. Maunder suggested that in the absence of urgent symptoms, such as serious obstruction, severe pain, vomiting, and hæmorrhage, nothing was at present indicated beyond the palliative treatment already prescribed by the House-Surgeon.

21st.—Has vomited twice to-day; motions still fluid and frequent.

26th.—During the last few days the vomiting has greatly increased in frequency, and he has much changed for the worse, being very feeble. His countenance is pinched. Pulse 108; very compressible. As some cough existed, Dr. Down was requested to see the case, and, having done so, saw no objection to lumbar colotomy, which Mr. Maunder suggested to the patient as the only means of checking the vomiting, and of prolonging his life possibly for three months. The operation was performed at once, and the vomiting did not recur, and the patient expressed himself relieved. He became weaker and weaker until he died, forty-three hours subsequently. Post-mortem examination was obstinately refused.

Case 2.—Mrs. H., aged 25, with an undoubted history of syphilis, has been under Mr. Maunder's observation for the last two years. When first seen she was the subject of ulceration of the rectum, hypertrophied folds of skin about the anus, associated with one or two ulcers, and hypertrophied vulva. There was also more or less frequent desire to go to stool, associated with painful defæcation and muco-sanguineous discharge. Upon two occasions outgrowths at the anus have been removed by operation. Mercury and iodine have been used in various forms, but with rather an injurious than a good effect. She has had also the opportunity of sea air and country air, but without avail. At the time of her last admission, October 28th, 1871, her symptoms were aggravated. There is a sense of bearing down; frequent desire to go to stool, resulting in a free discharge of mucus highly tinged with blood. The anus is fringed with outgrowths, ulcerated; and about an inch and a half within this aperture the rectum is becoming strictured.

January 3.—The treatment has been conducted on general principles, and the gum-elastic bougie used. She is no better, and says "her life is miserable." Mr. Curling was asked to see her, and suggested the exhibition of one grain, or even half that quantity, for a dose, of iodide of potassium, as she could not bear larger quantities, and the solution of one grain of nitrate of silver in an ounce of water to be injected.

7th.—The stomach has rejected both medicine and food. She cannot bear the injections.

25th.—She is worse rather than better, both locally and generally; suffering from frequent attacks of vomiting. Mr. Maunder suggested that lumbar colotomy afforded her a reasonable prospect of recovery, and the patient readily acceded.

31st.—Lumbar colotomy was performed in the left loin, patient being under the influence of chloroform. The patient having a tendency to obesity, and the muscles well developed; the descending colon, empty, was found at a good depth from the surface. It was secured to the wound, and opened in the usual way. When the patient was turned upon her back, milk, which had been previously injected per rectum, flowed at the wound.

February 3.—She has always been susceptible to chloroform vomiting, and suffered a good deal consequently. The traumatic fever has been high, and there is now free discharge from the wound.

8th.—Vomiting ceased some days ago; motions pass entirely by the wound; and altogether she is progressing favourably. Since the operation the sanguinolent discharge from the rectum has entirely ceased.

18th.—Doing well.

Remarks.—When contemplating colotomy on the male referred to, the operator had for his objects the arrest of vomiting, which seemed to be rapidly exhausting the patient, and also the emptying of the bowels—only partially able to empty themselves—the product of the decomposition of the contents of which was probably being absorbed and poisoning the system. The exhalations from the man were most offensive. In a thin subject the operation is easily performed; no blood is lost, and shock is avoided. Although life cannot be prolonged beyond a few weeks, sometimes only for days or hours, intense suffering is removed, and the patients are always grateful. In the case of the young woman the principle upon which the operation was undertaken was widely different. Ulcers exist, and even if they would heal cannot, by reason of the frequent

passage of fæces over them and the disturbance caused by muscular action. Mr. Maunder hoped that by diverting the passage of the fæces from the rectum to the loin for a few weeks, the repose thus given to the diseased bowel would have a curative result.

LEEDS INFIRMARY.

At a recent visit to this fine institution, we had an opportunity of seeing the following interesting cases in the wards under the care of Dr. Allbutt:—

First, we saw a man about 30 years of age, who had suffered some time from epileptic fits, beginning with an aura from the right thumb. He described it as a kind of internal quivering. This runs up his arm in about sixty seconds, when he becomes unconscious; but he can stop every fit by tightening a cord which he wears round his wrist, so that a fit never occurs unless his cord breaks. Dr. Allbutt has had a steel band with a screw made for him, which can be tightened without fear of giving way. The cause of his first coming to the Infirmary was a terrible supra-orbital neuralgia of the left side, which had lasted nearly six months, in spite of all treatment at the Belfast Infirmary and elsewhere. This neuralgia seemed to have partially replaced the epilepsy, as during its continuance the threatenings had been less frequent. Under the daily use of ten cells of Elliott's constant battery for three weeks his agonising pain had been entirely cured, and was relieved after the first or second application. There still remains some occasional aching in a slight degree, but nothing to inconvenience him. Dr. Allbutt had also among his patients a man suffering from intense neuralgia of the first and second branches of the trigeminal nerve, and who had a white lock of hair on the same temple about the size of his forefinger. The constant current had utterly failed to give him the slightest relief, but Dr. Allbutt gave us to understand that such a failure was quite exceptional in his experience. Another patient is liable to epileptiform attacks confined to the left side of the face and the tongue. There is never any loss of consciousness nor any movement of the limbs, but the left arm is sometimes a little numb and heavy. The attacks, on his admission, were occurring many times daily, and lasted about a minute or a little more, but they have given way very much under the use of bromide of potassium.

The principal methods of electro-therapeutics were introduced into this Hospital some time ago by Dr. Clifford Allbutt, and we saw several patients under this kind of treatment. Among others was a case of bad sciatica of long standing, which had been treated with twelve to twenty-five cells of Weiss's constant battery for about a fortnight. There was now but little pain remaining, and the weak and wasted leg was recovering favourably under gentle faradism.

In a neighbouring bed was a very remarkable case of progressive muscular atrophy, in which the unusual course of the disease had left the hands and forearms as yet intact. These parts were, in fact, finely developed and very powerful, while the upper arms and scapular muscles were much wasted. The triceps extensor in both arms was fairly preserved, but both biceps muscles had vanished, or nearly so. The legs showed the same peculiarity; the thighs being much weakened, while the parts from the knees downwards were scarcely affected at all. Galvanisation of the sympathetic in the neck had been carefully practised for some time, with not the slightest improvement, but a fortnight's use of faradism had enabled the man to rise from bed and walk about the ward. These, Dr. Allbutt assures us, are the results he has always obtained in the very numerous cases of progressive muscular atrophy which have been under his care.

In other parts of the ward Dr. Allbutt showed us a case of cirrhosis of the liver, in which we could detect only a bare finger's breadth of dulness; a massive tumour occupying the left half of the abdomen, of slow growth, and not attended with rapidly advancing cachexia, wasting, or pain, and which Dr. Allbutt guessed to be enchondromatous; and thirdly, a case of much interest, in which marked cachexia, constant vomiting after food, and a tumour in the cardiac region of the stomach in a middle-aged man suggested malignant disease, while, on the other hand, an indistinct resemblance to the spleen and a history of residence in the tropics suggested ague-cake and paludal cachexia. A course of quinine quickly settled the matter by removing the cachexia, the vomiting, and the tumour in a few days.

We saw, also, a boy about 10 years of age, who has been in the Infirmary under Dr. Clifford Allbutt's care for many weeks. The symptoms are amaurosis (complete), vomiting, and headache; there is also some loss of balance and control over the legs, as is well seen when the boy is made to walk in the ward. Dr. Allbutt told us that the boy had presented the choked disc in both eyes in a marked form, but that this state had now been followed by atrophy of both nerves. He was quite blind. Dr. Clifford Allbutt believes that there is a tumour in the vermiform process of the cerebellum; and we may refer to his discussion of this point in the fifth chapter of his volume on the "Ophthalmoscope in Diseases of the Nervous System."

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Medical Times and Gazette.

SATURDAY, FEBRUARY 24, 1872.

MEDICAL EVIDENCE.

In another column will be found an interesting paper read by Dr. Bernays before the Association of Medical Officers of Health, on the precautions which should surround toxicological investigations in Medico-legal cases, and on evidence in courts of law. Although not a Medical man, Dr. Bernays, from his well-known scientific attainments, and from his wide experience as a lecturer on chemistry at a large metropolitan Medical school, is entitled to speak with authority on such important questions as those he has mooted in his paper. The evidence offered by experts in courts of justice—we are now speaking of the evidence of experts generally, and not solely of that of Medical experts—has of late given rise to a widespread opinion that the success of a cause depends not on its merits, but on the length of purse of plaintiff and defendant. Long lists of eminent witnesses have been seen arrayed against one another, and, as it seemed to the general public, offering under oath the most contradictory statements.

As for the evidence of Medical witnesses, it has been a by-word and term of reproach, especially among lawyers, though very unjustly. Solicitors and barristers are guided by custom and precedent, whilst we are thankful to say the Medical Profession is day by day becoming more guided by science and reason. A Medical man who goes into the witness-box as an expert, the wider his experience and the greater his knowledge, the greater is his diffidence in committing himself absolutely on particular points. The object of a barrister is, however, to get the expert to give unqualified answers to the questions put to him, and, if possible, to convert the witness into an advocate. Medical men should, however, never forget the obligation they are under, not only to speak the truth, but the whole truth. We well recollect a circumstance that occurred at the outset of our Professional career, illustrating the kind of evidence a Medical

man is expected to give. We had been accidentally witness to an unprovoked assault made upon an officer in the army at a place of public amusement, by a man with whom the officer had no previous acquaintance. The man, in consequence of some supposed insulting expression in the officer's face, deliberately spat upon him. The barrister—an eminent recorder, we believe—who conducted the plaintiff's case in the police-court, tried to extract from us that such an unprovoked assault as this committed by a man who had never seen the officer before, by a person who it was now admitted had received no provocation, must be the act of a madman—the object being to get the defendant confined as a lunatic instead of being simply bound over to keep the peace. Of course the barrister, notwithstanding much bullying, that eventually provoked the intervention of the magistrate, failed in moving us from the assertion that, although the assault was consistent with insanity, yet it was equally consistent with perfect sanity.

Medical evidence may be divided into two kinds—that which is offered before the coroner's court, and that which is given in a court of justice. The former is, we need hardly say, more frequently required than the latter, and is perhaps of no less importance. Nothing can be more unsatisfactory than the manner in which both are demanded. We have the testimony of Dr. Lankester that the evidence of Medical men in his court is often utterly defective; and further, that he is not even bound to receive Medical evidence solely from Medical men—he can call upon anyone to give Medical evidence; and he stated before the Association of Medical Officers of Health, when discussing Dr. Bernays' paper, that he had on a recent occasion called upon a post-mortem-room porter to give evidence as to the existence of a clot of blood upon the brain. This is an unsatisfactory state of affairs. The law requires that in the case of a sudden or suspicious death the nearest Medical man be sent for, or the one who first saw the body after death, to make the post-mortem examination. Dr. Lankester evidently thinks that it would be much better to employ an expert accustomed to such examinations. The time is not, we hope, far distant when several experts will be attached to the coroner's court, skilled not only in pathological anatomy, but in chemistry. They should, in reality, decide whether an inquest is necessary.

A crying evil is the inefficient manner in which toxicological investigations are carried out, or, rather, not carried out. Suppose an inquest is held on a body, and the circumstances are such as to justify a suspicion of poisoning: the coroner has several courses open to him and not one is satisfactory. He may decline to order any chemical investigation on the score of expense. We know of an instance where two members of a family died with symptoms pointing most strongly to arsenical poisoning, whilst the other members of the family suffered at the same time from severe diarrhœa. The coroner adjourned the inquest, and directed (verbally) the viscera to be handed over to a well-known toxicologist. He declined to undertake the responsibility without a written order from the coroner, which would have involved the payment of a moderate fee. The coroner, simply stating that he had no funds, declined to make the order, and closed the inquest. Sometimes the coroner may be able to induce the ordinary Medical attendant to give up his fees (which seldom, if ever, exceed two guineas) to some expert, who may have to spend several days in carrying out the analyses required, and for which two guineas is miserably inadequate. In a case of apparently very great importance the coroner applies to the Home Secretary for an order for analysis. If the request be granted, the pay is certainly more adequate; but we know from experience that the request is too often refused. In the case of charges made before a magistrate the course of procedure is even more objectionable, for it is difficult to obtain more than half a guinea or a guinea for a chemical analysis and evidence. If, as in certain well-known instances, some Medical jurist of standing and reputation be employed, an objection, ably put forward by Dr. Bernays, lies, that an investigation involving questions of life and death ought not to be entrusted to only one individual, however eminent and above suspicion he be. Dr. Bernays would entrust the investigation to a court of skilled examiners, who should conduct the investigation. We apprehend there would be difficulties in the way of this, and our experience of committees—not a slight one—is adverse to this course. The plan followed in Paris appears to us to be a good one, not very expensive, and one which almost entirely meets the wants of the case. The conduct of a toxicological investigation is entrusted to two experts—one a Medical jurist and Physician, having a thorough acquaintance with physiology; the other a chemist, who is not necessarily a Physician. They meet, examine the viscera, and make the necessary analyses after consultation. In all cases where practicable it might be further required that the analyses be done in duplicate, each one by a separate chemist, who should be required to conduct his analysis without consultation, just as the bullion-dealer sends his ingots to two different assayers, who make their reports each in ignorance of the procedure of the other; or as the two examining Medical men, in a case of lunacy, make their separate examinations and reports.

We may sum up our views as to the conduct of Medico-legal investigations thus:—The coroner and the police magistrate, in all cases in which they deem it requisite that a post-mortem examination or an analysis should be made, ought to be able to secure the services of two competent experts, one of whom should be a chemist; and these should make their investigations as far as possible in concert. Perhaps it might be necessary to employ a second chemist in the manner already indicated. Their evidence in writing should be laid before a public prosecutor, an official whose appointment cannot long be delayed. We dissent entirely from Dr. Bernays' view, that the experts ought not to be examined and cross-examined in open court. A well-reasoned opinion ought to be able to withstand a severe cross-examination, and we do not see why the evidence of a Medical man in a case of life and death should be allowed to escape this severe ordeal.

The question whether the duties above indicated should be entrusted to the new Health Officers, to be created under the Sanitary Bills now before Parliament, when they become law, is a distinct consideration, of which we shall probably treat in a future article.

THE PATHOLOGICAL SOCIETY.

At the meeting of this Society on Tuesday, the President announced that the Council had come to an important resolution. They recommended the setting apart of portions of the Society's time for the discussion of certain points or abstract questions connected with pathology. With this recommendation we most heartily agree. It is high time the Society took some such step, for it is foolishness to go there night after night to see bits of bone, the sole interest of which lies in their having been excised by some distinguished Surgeon present, or of a salivary calculus which it required two men to extract, but of which beyond nothing is known.

The Society is called a Pathological Society, and yet it has of all things been most impatient of pathology. It has been wont to calmly sit down to digest a certain mass of morbid material, and has been most impatient until it has ingested the whole of it. Any remarks on an interesting subject have been promptly repressed, and the sole aim of the Society at one time seemed to be to have as many specimens as possible before it, quantity being esteemed far before quality. Doubtless this kind of work has been well done—and by this time it has been pretty thoroughly done—but it is not pathology.

It is well to encourage the younger members to bring forward specimens which may serve to give rise to a few words of pleasant discussion; but for the senior members there should

be opportunities for ventilating theories of disease and causation of disease, such as have not heretofore existed. Indeed, it was not until the Society came under the wise rule of a recent president that anything could be introduced which had not an immediate reference to morbid anatomy; now, we trust, his views are to receive a still more extended application.

But there is something still wanted. There is no time or means for examining specimens until the time for discussion has gone by. Above all, there are no means for examining a microscopic specimen save by an engine few men can work—the only one of the kind in the Society. Why some of the surplus funds are not spent in obtaining some fairly good microscopes, and thus insuring the means for examining morbid specimens, we cannot see; but we can conceive that such a plan would be conducive to the better study of pathology in the Pathological Society.

THE EXPECTED COLLISION WITH A COMET.

Critics and theologians have often noticed the remarkable agreement between some of the maxims sanctioned by the most Divine authority and those of the shrewdest and most practical of the Roman poets.

> "Prudens futuri temporis exitum
> Caliginosa nocte premit Deus,
> Ridetque, si mortalis ultra
> Fas trepidat. Quod adest memento
> Componere æquus; cætera fluminis
> Ritu feruntur," etc.

So sang Horace; and Mr. Creech Englished his song thus:—

> "Future Events wise Providence
> Hath hid in Night from humane Sense
> To narrow bounds our Search confin'd;
> And laughs to see proud Mortals try
> To fathom deep Eternity
> With the short Line and Plummet of their Mind."

But there is a certain class of minds on which neither Divine authority nor human wisdom makes much impression. These credulously listen to the juggling vaticinations of the mercenary quack preacher or astrologer, who undertakes to "fathom deep Eternity," and to fix "That Day and Hour" which the Omnipotent has locked up amidst the awful things not to be made known.

Comets played a great part in the cosmical theories of a bygone day, and were supposed to create not only material cataclysms, but moral disturbances—revolution, war, etc. In Thomas Burnet's "Sacred Theory of the Earth," comets account for the elevation of hills, the depression of ocean beds, and the Universal Deluge.

But if the theories of modern astronomers are worth anything, comets are very harmless bodies after all—mere puffs of vapour; nay, it is supposed that our earth passed through the tail of one without injury on June 30, 1861.(a)

But though actual collision with a comet may do little material harm to the earth, the Medical philosopher may fairly comment on the moral harm which the belief in it may inflict on the earth's inhabitants. At the end of the tenth century of our era an impression prevailed that the world was coming to an end. The cultivation of the earth was neglected, business languished, and whilst some men were absorbed in fear and considered all earthly occupations hopeless, others determined to enjoy the fleeting hour, and beguiled the time with licentiousness, rapine, and drunkenness.

The notion of a speedy end to the world is a phenomenon that occurs at intervals. About ten years ago the Irish inhabitants of Gray's-inn-lane were so disturbed by such a prophecy, that some went out of their senses. A similar delusion in the reign of Queen Anne caused Dean Swift to bequeath to us his "True and Faithful Narrative of what passed in London during the General Consternation of all Ranks and Degrees of Mankind on Tuesday, Wednesday, Thursday, and Friday last." What Swift pretended to describe as happening then, would be sure to happen now, should the popular belief in the end of the world be confirmed. Swift's pretended narrator, a mercer in Cheapside, says that he went to church with his wife—a thing he had neglected on a week-day for many years; but during their absence a fine piece of cambric was carried off by a shoplifter. The Governor of the Bank of England, it is said, directed all the fire offices to keep their engines ready to play on the building. The South Sea Stock went down. The lawyers were in great consternation.

"Our sage and learned judges had great consolation, inasmuch as they had not pleaded at the bar for many years; the barristers rejoiced in that they were not attorneys; and the attorneys felt no less satisfaction that they were not pettifoggers, scriveners, and other meaner officers of the law. . . . Most of the considerable Physicians, by their outward demeanour, seemed to be unbelievers; but at the same time they everywhere insinuated that there might be a pestilential malignancy in the air, occasioned by the comet, which might be armed against with proper and timely medicines. . . . The only persons who showed any joy were three malefactors sentenced to be hanged on the Monday following. . . . An Irish gentleman, out of pure friendship, came to make me a visit, and advised me to hire a boat on the ensuing day, and told me that unless I gave earnest for one immediately he feared it might be too late, for his countrymen had secured every boat on the river, judging that in the general conflagration to be upon the river would be the safest place.

"At length Friday came; and the people covered all the streets—expecting, watching, and praying. But as the day wore away their fears began to abate, then lessened every hour; at night they were almost extinct. . . . Great numbers now flocked to the taverns to supper. . . . The subject of all conversation was to ridicule the propheey. . . . All the gentry were perfectly ashamed, and disowned that they had manifested any signs of religion. . . . The next day even the common people appeared in their usual state of indifference. . . . They drank, they whored, they swore, they lied, they cheated, they quarrelled, they murdered. In short, the world went on in its old channel."

We may divide the world into two classes—those who read Dean Swift, and those who do not. The latter class have got to learn what wisdom and wit are; the former will excuse us if we have neglected Medical matters for the moment, and have brought the great Dean on the stage to show us the value of the morality extorted by fear of a comet.

THE WEEK.

TOPICS OF THE DAY.

Tuesday's *Gazette* announces that Sir William Gull, Bart., M.D., has been appointed Physician-Extraordinary to her Majesty. This personal tribute on the part of his Sovereign will, we are sure, not be the least appreciated of Sir William Gull's recent honours. We heartily congratulate him upon this well-deserved distinction.

The University of Cambridge has confirmed the report of the Syndicate recommending the scheme for a partial Conjoint Examining Board agreed to by the Royal Colleges of Physicians and Surgeons. Although the Universities have more or less readily given their assent to the arrangement of the Royal Colleges, we must maintain our opinion that it is not for the benefit of the Medical Profession that that arrangement in its present form should receive the assent of the General Medical Council. In the first place, the scheme is not complete, even as regards England. The Medical Authority which has the highest Parliamentary sanction, which has done more to improve Medical education and examination, and to raise the status of the Medical Practitioner, than any other, is, by the very nature of the scheme, excluded from participating in it. To suppose for one instant that by such a union, which is certainly not sanctioned by the spirit of the Act of 1858, the Apothecaries' Society will be driven to forego the exercise of its licensing powers, whilst it offers to the student a thoroughly fair and sufficient practical examination of his fitness to practise,

(a) See a notice in *Nature*, February 15, 1872.

Plate I.

Experimental tracings from iSchema.

From Aorta. P. 6 oz

1. Capill dilated.

2. Capill contract.

From Brachial. P. 1 oz.

3. Capill dilated.

4. Capill normal.

5. Systole prolonged

6. Capill contr.d

From Radial. P. 1 oz.

7. Capill dilated

8. Capill normal

9. Capill contr.d

Experimental tracings of Normal Pulse (Mr. T. Lastes)

10. External Carotid.

11. Brachial Pr. 4 oz.

12 Radial Pr. 2 oz.

13. Radial Pr. 1 oz.

14. Dorsalis Pedis Pr. 4 oz.

15. Increas.d tension from Expiratory effort

16. Decreas.d tension from Inspiratory effort.

At another Sitting.

Healthy Pulse Tracings.

17. Pr. 3 oz. Æt. 53.

18. Pr. 3 oz. Æt. 22.

19. Pr. 1½ oz. Æt. 17.

20. Pr. 1 oz Æt. 22

21. Pr. ½ oz. Æt. 18.

22. Pr. ½ oz. Æt. 14.

23. After Exercise.

24. Pr. ½ oz. Æt. 11.

Plate II.

Intermittent Pulse

1. Pr 6 oz. Cold. T. 104.4. P. 150 R. 30

2. Pr. 6 oz. T. 105.3 P. 132 R. 32 Hot.

3. Pr. 6 oz. Sweating T. 104 R. 30

4. Pr. 5 oz Normal T. 98.2 P. 75 R. 24

Pharmacal Tracings

11. Pr. 6 oz 1st stage of labour

12. E.M. Pr. 4 oz 1st day.

13. A.M. Pr. 3 oz 1st day.

14. Pr. 3 oz 2nd day.

Bright's Disease

15. A.F. Pr. 6 oz

16. Heart Apex

1gr of Quinine injected.

5. Pr. 6 oz Cold. T. 102.6 P. 100 R. 32

6. Pr. 3 oz Hot T. 104.8 P. 100 R. 32

7. Pr. 1½ oz. Sweating T. 102.8 P. 100 R. 30

17. Pr. 4 oz. Stephen

18 Heart Apex

19. Pr. 4 oz. After an Uræmic convulsion.

Atheromatous Arteries

20. J.M. Pr. 3 oz

Before Quinine

8. Pr. 4 oz T. 98 P. 72 R. 24

After Quinine 9. Pr. 3 oz

Disease of Spinal Cord

21. J.M. Pr. 1½ oz. T. 6/71.

22. Pr. 1 oz 13/5/74.

Hepatic Dropsy

23. Pr. 4 oz

Phthisis

24. Pr. 6 oz

10. J.G. Pr. 3 oz Respiratory undulation in Pulse.

and a licence which has the *prestige* of more than half a century, and the highest legal sanction, confirmed by repeated Acts of Parliament, is mere folly. To suppose, again, that the Royal College of Surgeons is so far independent of all public law and public opinion that it is able to refuse to examine candidates who have already obtained a legal right to practise Medicine for a diploma in Surgery, unless they also consent to be examined by, and pay a large sum of money to, the Royal College of Physicians, is to credit the College with powers which, we believe, are not conferred by its charters, and are certainly repugnant to the spirit of all previous Medical legislation. Should the General Medical Council be ill-advised enough to sanction this scheme, it will have no choice but to admit to the Register a large body of Medical Practitioners having no Surgical diploma, but possessing the licence of the Apothecaries' Society only. We need not say that this would be to accept a position against which all they have hitherto done has been a protest, and to introduce an evil which would far outweigh any good that might accrue from an arrangement between the Universities and the Royal Colleges. But there are other and still graver objections to their acceptance of this scheme. The first is, that it is now tolerably clear that it is useless to expect any conjoint action between the Irish Medical Authorities, and that the Scottish are quite disagreed as to the character of the conjoint examinations which some of them are willing to institute. Further than this, there is a strong feeling which is gaining ground amongst some of the foremost teachers and professors in Scotland, that the dead level of education contemplated by Conjoint Boards, even if it could be attained, would be a greater evil than the present multiplicity of examinations. We confess that we do not share this fear if a properly constituted and complete Conjoint Board were formed in each division of the kingdom, in which all sections of the Profession and all Medical authorities were represented, and which was subject to the constant supervision and inspection of the General Medical Council. But we are bound to take notice of an objection, the validity of which only experiment could disprove. The feeling of which we have spoken has taken shape in a memorial, a copy of which we have received from Professor Sanders, of Edinburgh, and Professor Gairdner, of Glasgow, and which, we believe, will be presented to the General Medical Council at their forthcoming session. The following is the text of the memorial:—

"The undersigned, having been informed of the recent proceedings on the part of the Universities and Corporations in Scotland, with a view to the formation of a Conjoint Board of Examination at the instance of the Medical Council, feel bound to indicate their dissent from these proceedings on the following grounds:—

"1. The reason alleged for such proceedings in the first instance—viz., the attainment of 'uniformity of qualification' (*i.e.*, a fixed minimum of Medical knowledge and skill on the part of candidates, secured through examinations conducted upon a precisely similar plan, by examiners making precisely similar requirements)—appears to the undersigned an object neither desirable nor attainable.

"2. Even were the object in question a desirable one, it evidently cannot be secured by the measures proposed. It is inconceivable that one Board sitting in England, another in Scotland, and a third in Ireland, each Board being of very complex constitution, and holding examinations in different places, without any concert or intercommunication, could possibly secure 'uniformity' in any real sense of the word.

"3. The immense number of candidates which would have to be examined in each division of the kingdom by the Conjoint Boards, would make it absolutely necessary either greatly to enlarge the number of examiners and to subdivide them into companies (of course with a still further loss of 'uniformity' as regards results), or to work one set of examiners continuously day after day for long periods, with the practical effect of reducing their operations to a wearisome routine, incompatible with other Professional pursuits on the part of the examiners, and entailing great hardship upon candidates by want of accommodation with the sessional arrangements of the principal Medical schools.

"4. The expense of examinations so conducted would be, if thrown upon the candidates, a very serious addition to the cost of Medical education and qualification, without any commensurate results as regards the security of the public.

"5. The undersigned are decidedly of opinion that if, for the public security, an additional examination requires to be introduced over and above the nineteen at present in operation, the cost of such additional examination should in any case not be thrown upon the candidates, nor yet on the existing examining bodies, but should be defrayed by the State, as representing the public.

"6. The true object to be aimed at, whether in view of the public interest or that of the Medical Profession, is, in the opinion of the undersigned, *not* uniformity, nor yet a fixed minimum of qualification, but the watching and stimulating the existing Examining Boards, through a systematic inspection, conducted under the auspices either of Government or of the Medical Council.

"7. The undersigned profess themselves willing and anxious to facilitate to the utmost a thoroughly efficient system of examination in the Universities and Corporations with which they are severally connected, and would gladly welcome the visits of any inspectors appointed on the part of the public to secure, as far as may be, efficiency on the part of all such examining bodies in the performance of their important duties. In the case of the Universities, such a system of inspection would be quite in accordance with the system already introduced by the Universities Act of Non-Professorial Examiners. The undersigned are thoroughly satisfied with this system, and believe that an extension of it would do good.

"8. The details of such inspection should, in the opinion of the undersigned, be arranged between the State, as representing the public, and the Medical Council as representing the Medical Profession.

"9. The undersigned desire it to be understood that so far from objecting to a 'Conjoint' system of examination, they would cordially welcome any voluntary joint action of different Boards with the view of diminishing the labour and responsibility of examination, and the expense and trouble of it to the candidates. The objection that they entertain to the proposed system is, that it would not diminish either the expense or the trouble to the candidates, but would, on the contrary, increase both; while, by removing the responsibility of the practical part of the examination in some measure from the existing Boards, it would tend very much to reduce all Medical examinations to a low dead level, and would render it nearly impossible to improve them in accordance with the demands of advancing Medical knowledge."

Seeing, therefore, that there are these grave objections to the acceptance of any partial scheme which may be laid before the General Medical Council, and that it seems useless to expect any combined action in Scotland and Ireland, we think it our duty to urge on that body the responsibility which they will take upon themselves if they hastily disturb the existing machinery of Medical education and examination by tentative, imperfect, and premature alterations which may yet be proved to be *ultra vires*.

The Bill now before Parliament for the better protection of Infant Life, introduced by Mr. Charley and Drs. Brewer and Lyon Playfair, provides that it is unlawful for any person to retain, or receive for hire or reward, two or more infants under the age of one year, for the purpose of nursing or maintaining them apart from their parents, for a longer period than twenty-four hours, without first taking out a licence under the hand of a justice of the peace. This licence is to be granted by justices on their receiving a certificate from a justice of the peace, clergyman, or minister of religion, or registered Medical Practitioner, that he has caused a personal investigation to be made into the character of the person applying for the licence and his or her ability to maintain the children. The licensed person is to keep a register of the infants under his care, which he is bound to produce when required by an order from a justice of the peace. Infringement of these provisions is a misdemeanour punishable by six months' imprisonment or fine. The licence may be revoked by a justice of the peace on proof that an infant is in an unsatisfactory state of health and condition arising from the neglect or incapacity of the person so licensed. The death of an infant under

the care of a licensed person is to be reported within twenty-four hours to the coroner, who is bound to hold an inquest unless a Medical certificate be produced by the licensed person that death occurred from natural causes. No child so dying is to be buried without the coroner's certificate. The provisions of the Act do not extend to relatives or guardians of infants, nor to persons having the care of infants whose parents are abroad, nor to public homes and orphanages, nor to persons receiving children under the provisions of any Act for the relief of the poor. It seems to us that the omission of any provision for the regular inspection of baby farms is an important flaw in the Bill. Another is, that it is not extended to those establishments common enough in the manufacturing districts, where infants, whose mothers are at work in the factories, are "kept quiet" during the day.

Mr. Stansfeld's Sanitary Bill has the merit of not attempting too much. If he succeeds in establishing definite local sanitary authorities, with definite responsibility, he will have accomplished a great good. We shall take an early opportunity of making our readers acquainted with the particulars of the measure.

We reserve our comments on "the extraordinary charge of murder" brought against a solicitor, who is accused of killing his wife in 1867, by his niece and her alleged paramour, a Surgeon, who was called to attend the deceased lady. The case is evidently one which will require most careful investigation.

A further sum of £100 is to be paid to each of the eighty-five London charities under Lord H. Seymour's will.

The students of the University of St. Andrews have decided in favour of the admission of ladies to the learned professions. By this we suppose they mean the admission of women to the bar and pulpit as well as into Medicine. The Medical students at St. Andrews who have sisters and mothers, we presume would not desire to dissect at the same table with a woman.

Mr. Skey, with characteristic energy, has lost no time in informing the public, through the *Times*, of the dissatisfaction, not to say contempt, with which he regards Mr. Bruce's Bill for the Amendment of the Contagious Diseases Acts. He says that "Mr. Bruce has simply emasculated the Act, the very essence of which is the power to detect disease *in transitu*." We have already expressed our opinion that the examination of public and professed prostitutes, should it, in obedience to popular clamour, be at present abandoned, will most assuredly be re-enacted before long by Parliament. But it is clear, at the same time, that stringent measures must be adopted—on the one hand, to prevent mistakes and protect personal liberty; on the other, to repress and discountenance vice and to favour reformation. Anything like the French system of registration and legalised prostitution is abhorrent to the moral sense of England, and we are glad it is so. Mr. Skey, as the Chairman of the Admiralty Committee of 1865-66, assumes his full share of the responsibility of the advice on which the Government framed the present Acts. That they have done much good, none but fanatics would deny. The principle of the examination of public women in naval and military stations is one which cannot safely be relinquished. It is only necessary that, in their efforts to limit a preventible disease, the Legislature should take care to avoid all appearance of fostering and favouring the vice with which that disease is ever associated.

THE MURDER IN LAMBETH.

A TERRIBLE murder—remarkable for the cool determination with which it was committed—has been proved against a man, named William Chester Minor, who is described as an American Physician. This person, soon after midnight on Saturday morning, killed, by firing several times at him, a stoker named George Merritt, who was going to his work in the Belvidere-road, Lambeth. It would seem probable that the murderer mistook his victim for another person, one Pullington, who worked in the same brewery with the murdered man. William Chester Minor is said to be a Member of the New York College of Surgeons, and to be a person of wealth. Papers found in his lodgings show that he has been an Assistant-Surgeon, and afterwards a captain in the United States army, and that on service he had suffered from sunstroke, which had left him unable to practise the Medical Profession. He is stated to be an artist of some merit, and came to England for the purpose of sketching English scenery. He brought with him a letter of introduction from a well-known American to Mr. Ruskin. It is to be sincerely hoped that further investigation of the case may prove Minor's insanity. His papers show that his mind was so affected by sunstroke in America that he was unable to practise his Profession, and it seems that he had come to Europe by Medical advice. On the other hand, there is a rumour that he had a pecuniary interest in Pullington's death.

We are indebted to Mr. Williams, of St. Thomas's Hospital, for the following notes of the post-mortem examination of George Merritt, sixty hours after death:—

"His external appearance was that of a muscular and well-developed man, apparently in the prime of life. On the anterior surface of the body, an inch above the right sterno-clavicular articulation, and about half an inch to the right of the mediau line, was a circular wound about a quarter of an inch in diameter, with its edges a little torn and discoloured. Over the right orbit there was a lacerated wound, by which the bone had been laid bare, and the nasal bones were fractured. The upper lip was contused externally, and lacerated on its internal surface. On the posterior surface a wound similar to that in the neck was observed, about an inch and a half to the left of the spinous process of the second dorsal vertebra. There was no other external injury. On passing a probe into the wound in the neck, and dissecting along its course, it was found that the sterno-mastoid was uninjured. The right common carotid presented two somewhat ragged perforations about two inches above the upper margin of the arch of the aorta; the anterior one, situated a little to the left, was less irregular in shape, and its diameter smaller. The subclavian artery was next found to be perforated, and both openings were larger and more ragged than those of the carotid. A wound was found in the upper lobe of the right lung, extending from the apex downwards and backwards, and emerging opposite the angle of the sixth rib, the upper edge of which was deeply grooved, and only an extremely narrow margin of bone maintained its continuity. In the middle of the subscapular fossa there was a starred fracture through which a foreign body might have passed. In the substance of the infra-spinatus muscle a conical leaden bullet was found, about half an inch in length and a quarter of an inch in diameter, weighing eighty-six grains. Blood was found to be extravasated in the connective tissue in the course of the wound; also in the mediastinum. The right pleura contained about a pint of dark-coloured blood. The course of the posterior wound was traced by means of the probe into the vertebral canal, and it was found that on the left side the lamina of the seventh cervical vertebra was fractured, and the lower margin of the lamina of the sixth cervical vertebra grooved. The membranes of the cord were perforated, and in its substance, within the arch of the sixth cervical vertebra, was found a bullet, much battered, weighing sixty-six grains. The substance of this part of the cord was completely disorganised. On opening the skull it was found that no fracture existed, but there was extravasation of blood over the posterior lobe on the left side of the cerebrum. The other viscera were healthy."

SANITARY STATE OF IRELAND.

SOME few weeks since we directed the attention of our readers to the very unsatisfactory state of sanitary regulations in Ireland. We are glad to perceive that this very deplorable state of things is likely to be remedied. The Lord Lieutenant, at the inaugural banquet of the Lord Mayor the other day, said: "In order to make clear and strengthen the administration of local governing boards and of sanitary measures in Ireland, it is proposed to consolidate, during the present

session, this administration with the Poor-law management which now exists." "This," says *Saunders's News-Letter*, "his Excellency believed would be of material importance, particularly with regard to sanitary matters, the present epidemic of small-pox furnishing a good example." As a matter of course, the Poor-law Medical Officers of Ireland will be constituted Health Officers under the extension of this Act. We recommend their attention to its provisions. The Poor-law Medical Officers' Association have, we understand, already taken the matter into consideration, and a scheme has been proposed with the intention of assisting the efficient operation of the proposed Act. The present necessity for the introduction of some well-devised sanitary measure for Ireland cannot for a moment be doubted; and we can hardly imagine a body of men better qualified to carry out the provisions of such an Act than Poor-law Medical Officers. The *Freeman's Journal*, in a leading article on the subject, forcibly portrays the evils resulting from the present unsatisfactory state of the sanitary organisation of the country, and insists upon the necessity of "centralisation," so far as sanitary laws and regulations are concerned. After showing that Practitioners connected with the Poor-law would constitute the best Medical Officers of Health, the *Freeman* makes the following very sensible and practical observations:—

"We are inclined to believe that there could not be any body of men better adapted to administer and give information as to the sanitary requirements of the country, and we have no doubt that in the event of legislation taking place in this direction these gentlemen will be appointed Health Officers, so combining the preventive along with the curative properties of this system. No doubt the extra duties that will be imposed upon them will call for extra remuneration. In the interest of the public we advocate a fair remuneration, for we do not believe in gratuitous sanitation. In their own interests these gentlemen had better look to it in time; they have before them the precedent of the Dangerous Lunatic Act—imposed 'without fee or reward.' The Poor-law Medical Officers' Association is not of very long standing, but during last session it gave evidence of great vitality. We would recommend them to perfect its organisation, and closely to watch what changes may be contemplated under the new Local Government Act."

SMALL-POX JOTTINGS.

In the Whitechapel district three deaths had occurred from small-pox, and two new cases were reported during the past fortnight.——Three fresh cases of small-pox were reported in the Medical relief districts of Islington last week, as against seven the week before. There had been one death from the disease. ——The Medical Officer of Health for Chelsea, in his last week's report, states:—"The existence of small-pox in the parish as an epidemic may be said to be now practically at an end. No deaths have occurred from this cause during the past six weeks, and a very small number of fresh cases can be ascertained to exist."——Dr. Lankester reported to the St. James's (Westminster) Vestry that in the past fortnight four cases of small-pox—all vaccinated persons—had been brought under notice. ——In the Limehouse district twelve fresh cases were reported in the past fortnight; but there had been no death from the disease during that time.——The Aberdeen weekly return of small-pox cases up to the 15th inst. shows the total number of cases admitted in the Small-pox Hospital since the opening to be 85; new cases admitted on the 15th inst., 2; number of patients now in Hospital, 55; total discharged recovered, 17; dead, 13. The Convalescent Hospital is rapidly approaching completion, and will in all probability be ready for patients this week. In several country districts cases of small-pox—fatal in one or two instances—have occurred. These, however, have been readily traced to personal infection from the city, showing the necessity that exists for the most precautionary measures being taken.——Small-pox has assumed alarming proportions in Kirkaldy, and the town schools have been closed. ——At the Hampstead Hospital during the last fortnight, 88 patients had been received, 25 had died, and 98 discharged, leaving 210 under treatment, against 245 at the date of the last report, thus showing a decrease in the epidemic in the Hampstead Hospital district.——At the Stockwell Hospital, during the same period, 52 patients had been received, 13 had died, and 85 had been discharged, leaving 149 at present under treatment, as against 195 at the date of the last report—viz., 98 in the Small-pox Hospital and 51 in the Fever Hospital. The decrease in number had been accompanied by a marked diminution in the type of the disease.——The Medical Officer of the Local Board of Lincoln having reported to the Sanitary Committee that two unvaccinated children suffering from small-pox were brought from Nettleham to the Hospital at the Lincoln Workhouse on the 12th inst., in an open cart, resolved that proceedings be taken against any person infringing the law for the future. Of the two children referred to, one died within twelve hours of admission to the workhouse, and the other on Thursday morning last. The father died only three weeks before in Sheffield of the same disease, in consequence of which his wife, being destitute, brought the children to her friends at Nettleham.——The report to the Cork Board of Guardians last week showed "that since the outbreak of the small-pox epidemic 232 patients had been admitted to the County Hospital, and there had been 35 deaths. Out of the 100 cases of non-vaccinated persons 32 had died, while of the 132 admitted who had been vaccinated only 3 died. Of the 100 that had not been vaccinated only 7 had the disease in a modified form, and of the other 93 cases of non-vaccination, of the most virulent form of the disease, 32 had died. Of the 132 cases that had been vaccinated, some imperfectly, there were 80 who had the disease in a mild form, and only 3 deaths. From these facts it will be seen that vaccination afforded protection from death and disfigurement from the disease, and that, although not relieving persons from the liability of getting small-pox, it did confine the disease to a mild form."——The weekly returns of the deaths registered in Dublin last week from small-pox show 47, against 45 in the week preceding. Eight deaths from the disease occurred in the North Union Small-pox Hospital; 4 of these persons had been residents in the city, and the residences of the remaining 4 were not given in the return.——Small-pox caused 12 deaths in Belfast last week.——Forty-eight persons died from small-pox in the metropolis last week. In the two previous weeks the deaths from the disease had been 52 and 68. The present week's return is lower than any week since December, 1870, when the epidemic began to prevail.——There were 46 deaths from small-pox in Rome during the first week of the present month.

SEWAGE AND FEVER.

Some discussion has lately taken place with respect to the prevalence of fever amongst the men employed in the sewers of the metropolis. It appears from a statement made by Dr. Brewer, M.P., that in the metropolitan sewers 283 men are employed, whose ages range from 19 to 75, and the length of their service varied from seven weeks to fifty-two years. During the last year sixteen cases of fever occurred amongst them; of these eight were intermittent, which, it was considered, had nothing to do with the sewers. Sixteen cases, however, in 283 able-bodied men is a very large percentage indeed.

PAYING A FINE.

A student in the University, says the *Edinburgh Courant*, who was fined a guinea for disturbing his class last week, paid the greater part of it in halfpence, about a quarter of an hour being occupied by him in counting over the amount. This singular mode of "serving out" the Professor who inflicted the fine was carried out amid the laughter of the class, by whom the amount had been subscribed.

HEALTH OF CANTERBURY.

Mr. G. Rigden, in his annual report of the health of Canterbury, says:—

"It must not, however, be imagined that, even when our drainage and water-supply are made complete, all, or nearly all, has been accomplished by our ruling authorities, or by our individual citizens, for the preservation of their health and prolongation of their lives; there will yet remain many removable sources of disease, foremost among which may be noticed the discreditable state of many of the cottages in which the poorer classes are obliged to reside, but which are totally unfit for human habitations, producing disease and mortality among the younger members, more particularly as may be remarked in the large proportion of deaths recorded at young ages in the city."

HEALTH OF DUBLIN.

The deaths registered during the past week were 231—111 males, and 120 females. The average number in the corresponding week of the previous eight years was 186. We refer to the deaths from small-pox in our "Jottings." Fever proved fatal in nine instances in the Dublin registration district—viz., typhus in three, and typhoid in six. Two deaths resulted from scarlet fever, a like number from measles, and one each from diphtheria and croup. The deaths of eighteen children were referred to convulsions. Thirty-one deaths were caused by bronchitis, and three by pneumonia. Heart disease killed eight persons, and aneurism two. Two deaths were attributed to apoplexy, a like number to paralysis, and four to epilepsy. Twenty-four persons fell victims to phthisis, three to hydrocephalus, two to mesenteric disease, and one to scrofula. Two deaths resulted from accidental causes, and one was a case of infanticide. Sixty-three of the persons whose deaths were registered during the week were under 5 years of age, and forty-four were aged 44 and upwards.

SKIN-GRAFTING.

Dr. Thomas B. Clarke, the Medical Officer of the Leicester Workhouse, in his report for the past year, says that a large number of cases of ulcerated legs had been admitted for treatment. With the hope of more effectually curing the same, and of preventing their recurrence, many of the sufferers have been induced to voluntarily undergo a newly introduced operation of skin-grafting, which consists in the transference to the ulcer of a number of small pieces of skin taken from other parts of the body. About twenty-five patients have been so operated upon, several two or three times in succession, with the best results in most of the cases. The progress of recovery has been remarkably accelerated, and a prospect of a recurrence of the ulceration greatly diminished.

THE LAW RESPECTING THE INTERMENT OF STILLBORN CHILDREN.

At an inquest held last week on the bodies of two "stillborn children," at Liverpool, it appeared in evidence that a woman brought a box containing the bodies of two new-born female children to the cemetery in Vauxhall-road. The sextoness of the cemetery received it, and the woman handed her a certificate, of which the following is a literal copy:—"Feb. 10, Mrs. Griffis midwife 073 Gorden St, delivered Mrs Dixon of a still born female child 705 Gordan St." On inquiry being made, nothing was known of Mrs. Dixon at the above address, and Mrs. Griffiths knew nothing of the certificate. One of the children was born alive. The Coroner made some strong observations on the necessity of altering the law respecting the interment of "stillborn" children.

A FERTILE SOURCE OF DISEASE.

Several of the Medical Officers of Health of the metropolis have of late drawn attention to the injurious results of the accumulation of filth in dustbins, and some have suggested remedies for the abuse. The fault, it would appear, sometimes rests with the authorities. At the last meeting of the Whitechapel Board of Works, it was stated by the Sanitary Officer that the work of the dust contractors was performed in a most unsatisfactory manner; but it turned out that the authorities were unable to effect a remedy, as they had no power under the contract to inflict a penalty for neglect. The dust contractors, therefore, do as they like. This is really a disgraceful case of negligence on the part of the Board in drawing up their contract; and they must be held responsible for their loose way of doing business, for the occurrence of fever and other preventible diseases arising from the non-performance of their duties by the dust contractors.

FROM ABROAD.—THE FRENCH LIBERATION SUBSCRIPTION—CASE OF SPONTANEOUS HYDROPHOBIA—TURPENTINE IN PERITONITIS—EXCISION IN GUNSHOT FRACTURE OF THE HUMERUS.

The Liberation Subscription which has been opened in France seems to have been commenced without sufficient deliberation, so that both the desirableness of instituting it and the possibility of realising a sum at all commensurate with the object in view have been canvassed in various quarters. Originating with ladies, as the idea did, it has perhaps, as with some measures which they have recently taken in hand amongst ourselves, been characterised rather by generous impulse than sound discretion; for even its complete and speedy realisation, in view of the present critical state of French finances, is considered by some of the economists as a very questionable advantage. However, of this, when the fearful amount to be exacted is considered, there is no danger, which indeed, in the opinion of many, lies in the other direction of the amount collected being absurdly small as compared with that needed. Those who are aware of the sustained exertions which would be required to raise by voluntary subscription even one million sterling for any purpose whatever may well be staggered when one hundred and twenty are in question. The Medical Profession, as such, has finally determined not to subscribe, leaving it to each member of this to contribute in his own locality to the common fund. This resolution has been hastened by the decision arrived at by the Council of the Academy of Medicine, and approved of by the Academy. At the meeting of the Academy on the 13th inst., the President, M. Barth, announced that the Council had agreed unanimously that the Academy should not subscribe as a separate body, and that it did not recommend any special subscription to be raised by the Medical Profession. The Council, however, warmly supported the general subscription itself, and besought all members of the Profession to contribute to it. The Committee formed by the wives of Medical men at the instigation of Madame Jeannel, and presided over by Mesdames Wurtz and Nélaton, will, in deference to this opinion of the Academy, of which so many of their husbands are members, cease to act as a centre for the collection of subscriptions exclusively from the Profession, and will form only one of the branches of the General Committee. We can but wish this generous enthusiasm may be crowned with success; but, as we observed above, grave doubts are entertained by very patriotic citizens whether the effort is expedient, and still graver of its success.

In the autumn of last year M. Guillery related an interesting instance of "spontaneous hydrophobia" to the Belgian Academy of Medicine, which is reported in the eighth number of its *Bulletin* for that year.

A vigorous old man, 71 years of age, a tailor by trade, who had always had the best of health, was attacked on February 5, 1871, with pain in the head, neck, and temporal region, which he attributed to cold. He thought little of it until he found, in the evening, on placing his hands in water for the purpose of washing them, that he was seized with a violent and painful spasm of the throat, and a great repugnance to repeat the immersion. Feeling thirsty, he tried to drink some water, tea,

and coffee, but at each attempt the spasm returned and prevented him. This state of things continuing, M. Guillery was called to him on the 7th, and found him quite calm, speaking of his malady more as a curiosity than a suffering. He swallowed some meat without difficulty, but dared not appease his ardent thirst. Introducing fluid into the mouth without seeing it, by means of a tube, had also brought on the spasms. Persuaded to try, he managed by an immense effort to get down two teaspoonfuls of coffee, but declared that he preferred enduring the thirst to repeating the painful attempt. The mere sight of liquid brought on the spasms, accompanied by paroxysms of intense and prolonged fear. The liquid once removed, he conversed calmly upon his strange malady. His pain of the head had disappeared; there was no fever or acceleration of pulse, and his tongue was only whitish. On the 8th, the symptoms described were found persisting and aggravated, cruel suffering having been produced by attempting to wash the hands. The only thing the patient could take was a few morsels of bread dipped in wine, which had to be conveyed from behind, so that he should not see them. Mere looking at a glass of water produced a fearful spasm. An hour after he died, declaring that the attempt to do this had killed him. No post-mortem was performed. It is quite certain that he had not been bitten by any dog.

At a recent meeting of the Paris Hospital Medical Society, M. Vidal took occasion to call the attention of his colleagues to the great value of turpentine as an external application in partial and general, and even in puerperal peritonitis. Trousseau, originally importing this remedy from England, employed it in large doses internally. In peritonitis, M. Vidal soaks a piece of flannel thoroughly in the turpentine, and having applied it over a large portion of the abdomen, covers it with gummed silk. It remains on until vesication is produced at several points, when the silk is removed in order to allow of the evaporation of the turpentine. Under this application he has in many instances seen patients, who were very far gone, rally completely and recover. M. Bourdon inquired whether this application of turpentine had been employed in any cases from the commencement, and whether leeches, cataplasms, &c., had been also resorted to. In this case the turpentine would have acted just like an ordinary blister, and it is well known that in advanced peritonitis advantage is sometimes derived from resorting to blisters and Todd's mixture. He also suggested that the turpentine might act in the same way as the castor-oil collodion employed by M. R. Latour, by preventing transpiration and the contact of air. M. Vidal believes, however, that turpentine does not act in this way, but as an energetic and diffused revulsive, while at the same time it undergoes absorption by the skin and respiratory organs. At first he did not employ it so exclusively in peritonitis as he now does, as he then used to apply also leeches. Now he resorts without hesitation to the turpentine at once. He generally combines with it the application of ice, or what might be termed compression by means of ice, and under certain circumstances he would still use leeches. M. Moutard-Martin, believing the action of the turpentine to be solely topical, asked whether comparative trials of it and of blisters had been made; but M. Vidal is convinced that it also acts internally. That it is speedily absorbed is shown by the odour of the urine; while, soon after its application, the patients seem as if a cordial had been administered to them, and their cyanosed lips soon recover their colour.

At a recent meeting of the Lyons Society of Medicine, M. Ollier read a memoir on "Exeision of the Diaphysis of the Humerus after Fractures from Gunshot." This he had practised in three cases during the late campaign on the Loire, removing nine, seven, and six centimetres of the bone; and all the patients did well. In one of these the excision of six centimetres was performed on the upper third of the humerus, below the head, which firmly united with the rest of the bone, and the uses of the limb were completely re-established, the shortening which remained being only twenty-five millimetres.

The cases of gunshot wound of the humerus, M. Ollier observed, in which his operation is indicated are comparatively rare, and expectation should be the general rule. It is in comminuted fracture, with denudation of the periosteum and contusion of the medulla, and especially when the projectile remains amidst or in the vicinity of the fragments, that intervention should take place. At a later period inflammation and pain may also render excision necessary; for one of the immediate consequences of the operation is the disappearance of the pains, to the great relief of the patient. M. Ollier's mode of proeedure is entirely different from the old one for the removal of fragments of bone; for, in spite of the comminution, a true sub-periosteal excision should be attempted. Each fragment is successively seized and separated from its periosteum, so that at last a tolerably complete periosteal sheath is obtained, in spite of its lacerations opposite the seat of fracture. The bone, in fact, being a very compact body, is broken into a number of fragments completely separated from each other, while the more supple periosteum resists. It becomes more or less torn, and remains adherent to the soft parts and the fragments, especially in young subjects. The modifications produced in the periosteal adhesions by age are indeed considerable, and are very important as regards operations. When the splinters have been removed, the fragments must be excised to beyond the extent of the fissures. If, however, the fissure extends to the spongy tissue, and the subject is young, it need not be pursued if the soft parts are intact; but when it penetrates to a joint, an articular excision must be executed. After an excision, the ends of the bone should be brought nearer to each other, in proportion as there is little expectation of bony reproduction, which is less in proportion to the age of the patient. The silicated bandage favours the reparative process, and may require to be continued for months. In answer to a question as to the prevention of stiffness of the joints ensuing, M. Ollier replied, that so long as the inflammation persists, the bandage must be left on, it being indeed the best means of limiting the traumatic inflammation; and whenever it is renewed, movements should be imparted to the elbow and shoulder. The apparatus may, in fact, be left on without renewal for a month or five weeks, and anchylosis will usually be avoided, unless the fracture is too close to the joint. In conclusion, he repeated that expectation is the rule, and that excision is only suited for particular cases. It is especially indicated when, some time after the accident, complications arise; while, when there is intra-articular fracture, it should be performed immediately. The influence of age must also never be forgotten.

PARLIAMENTARY.—THE VACCINATION LAWS—METROPOLITAN WATER-SUPPLY—THE GOVERNMENT PUBLIC HEALTH BILL—SIR C. ADDERLEY'S BILL FOR CONSOLIDATING THE EXISTING SANITARY LAWS.

In the House of Lords, on Friday, February 16,

Lord Buckhurst gave notice that on Thursday next he would move for the appointment of a Select Committee to inquire into the operation and efficiency of the Vaccination Laws.

In the House of Commons,

In answer to a question by Mr. Stapleton, as to the impure state of the water recently supplied by some of the water companies,

Mr. Chichester Fortescue said the inspectors had been instructed to examine the reservoirs and filtering-beds of the water companies at least once a month, and to make a special report on the subject if occasion required it. The impurity of the water during January appeared to have arisen partly from the floods and partly from alterations which were being carried out.

Mr. Stansfeld brought in his Public Health Bill. Premising that it was a sanitary Bill and nothing more, and was founded on the report of the Sanitary Commission, he excused himself, on the score of urgency and want of time, from attempting to consolidate the existing laws, and from creating new Local

Boards. The Bill was divided into two main parts—the construction of local sanitary authorities, and the institution of new sanitary powers. With regard to the last, he showed, by a recapitulation of the principal sanitary Acts, that there were already ample powers in existence, and the first thing to be done, therefore, was to construct efficient machinery for working them. The essential parts of this machinery he defined to be a central controlling power, the institution of a definite local authority, and a definite responsibility cast on this authority, instead of mere permissive power. In the urban districts the local authorities would be Town Councils, Improvement Commissioners, and Local Boards, and the Boards of Guardians would be the authority in the rural districts—power being taken to combine different districts for sanitary purposes, such as the conservancy of rivers, the construction of sewage works, etc. As to the new powers, these Local Boards would be empowered to inspect drains, both inside and outside houses. As to pure water, power existed already for supplying water. He would ask for powers to test the purity of the water which was supplied by the water companies. A noble lord asked him the other day whether he proposed to deal with the adulteration of food and drugs. He did not propose to deal with the question of drugs. As to the adulteration of food, there were powers under the Nuisance Removal Act of dealing with unwholesome food, and he proposed to extend these powers specifically in certain directions. But he proposed also to make the local sanitary authority the authority for acting under the Food Adulteration Act of 1860. He proposed also to call upon the local sanitary bodies to provide Hospitals and all the appliances and Medical attendance for the treatment of epidemics. He also intended to ask the House to give to the Local Government Boards with respect to the country the same power which the Poor-law Board possessed in the metropolis, of requiring the institution of Poor-law Dispensaries and the provision of drugs for the treatment of paupers. He proposed, of course, to call upon the local sanitary authority to appoint sanitary officers, including Medical officers, who, as he thought, might or might not be Poor-law Medical Officers. With the assistance of these officers the Government hoped to secure those statistics of disease as well as those statistics of death which were now afforded to the Registrar-General. As to the compulsory registration of births and deaths, that would be provided for by another measure. He thought he had now stated in brief outline the provisions of this Bill. It reconstituted authorities and endeavoured to simplify them. It gave new powers and imposed distinct responsibilities. The Government entertained a confident hope that this measure before it left the House would assume a shape which would do credit to the House, and would be of lasting benefit to the health of the population of this country. The right hon. gentleman concluded by moving for leave to bring in the Bill.

Sir C. Adderley regretted that Mr. Stansfeld did not contemplate consolidation, without which any new legislation would be comparatively ineffectual, but he offered him all the support and assistance in his power to pass the Bill.

Mr. A. Johnston, Mr. F. Powell, Dr. Brewer, and others made some remarks, and the Bill was brought in and read a first time.

Sir C. Adderley obtained leave to introduce a Bill for consolidating and amending all the laws on public health and local government for England and Wales, exclusive of the metropolis.

REVIEWS.

A Practical Treatise on Bright's Diseases of the Kidneys. By F. Grainger Stewart, M.D., F.R.S.E., F.R.C.P.E.; Physician to the Royal Infirmary, Edinburgh; Lecturer on Clinical Medicine; formerly Pathologist to the Royal Infirmary, Edinburgh; etc., etc. Second Edition. Edinburgh: Bell and Bradfute. Pp. 334.

It is with pleasure we turn to this book, for it is a record of good work carefully and well done, impressed throughout with the marks of original thought. But it is more; for it contains, also, duly amalgamated, the conclusions of brother-workers on the subject. As Physician to the Royal Infirmary, Edinburgh, and as Pathologist to the same institution, Dr. Stewart has had great opportunities of studying any particular subject to which he may have directed his attention; and having for years studied this particular malady, he is fully entitled to be listened to as an authority on the subject. Nevertheless, we shall take the liberty of applying to his work some kindly criticisms which Dr. Stewart, we dare say, will not take amiss.

The author describes three forms of kidney disease, which he includes under the title of Bright's diseases. These three are—tubular inflammation, whether in the inflammatory, fatty, or atrophic stages; amyloid degeneration, beginning in the vessels, but ultimately affecting the tubules; and the small gouty or contracted kidney. This classification is essentially pathological, and, we think, fails to mark certain clinical distinctions it is well to bear in one's mind.

In his introduction, Dr. Stewart discusses and rejects a classification given in Rosenstein of Groningen's excellent work on kidney disease—partly justly, and partly, we think, not indeed wrongly, but inconveniently. The grouping of the forms of Bright's disease given by that author is into Obstructive Hyperæmia, Catarrhal Nephritis, Diffuse Nephritis, and Amyloid Degeneration—Rosenstein wrongly refusing to recognise the gouty kidney, and Dr. Stewart rightly including it in his list of morbid conditions. That a form of Bright's disease with contracted kidney does exist most pathologists in this country will be prepared to admit. But we cannot agree with Dr. Stewart in refusing to acknowledge the first two varieties of Rosenstein. It is true that obstructive hyperæmia of the kidney arising from heart disease is not, technically speaking, a form of kidney disease; nevertheless, it gives rise to albuminuria and to certain changes in the kidneys. Whether these changes, especially the hardening, the increase in the connective-tissue corpuscles, and the changes in the epithelium, are enough to give it a specific place in the list of kidney diseases on a pathologic basis, is another matter. Clinically, we are fain to recognise it. The distinction between it and most other forms of kidney disease, in that the quantity of solids secreted by the kidneys is nearly normal, is of very great importance; and so we think it well to recognise the condition by a specific name—obstructive congestion.

So, too, is it with catarrhal as compared with diffuse or parenchymatous nephritis. We are quite prepared to admit that, pathologically, these are both forms of the inflammatory Bright's disease recognised by Dr. Stewart. Nevertheless, we hold it convenient to give a distinct name to a condition due to a causation incapable of setting up the more severe form of the malady. This gives rise to albumen in the urine, but does not greatly interfere with the excretion of urea and such-like waste products—in short, the condition called catarrhal nephritis bears somewhat the same relation to parenchymatous nephritis that capillary bronchitis does to pneumonia. We quite admit that strict accuracy is on the side of Dr. Stewart; we are quite sure convenience and no necessary inaccuracy is on ours.

There is another form of kidney which is still a bugbear to many, which Dr. Stewart has done well to sweep away—that is, the fatty kidney. Fatty degeneration may occur in any form of the disease, or even when there is no albuminuria, and so ought to be got rid of altogether as a distinct pathologic variety of Bright's disease.

Of the many excellent histories which follow we shall say nothing, though we should have been glad to have received from them a hint on more than one subject. We confess our mind has been filled with envy, on reading German cases, to note that day by day the *quantity* of albumen passed was given. Here we find nothing of the kind; and we sadly regret that we are not able to suggest any simple remedy for the deficiency. The estimation by the space occupied by coagulum in a test-tube is very fallacious, though commonly it is the only thing relied upon; and the process of drying and weighing is too tedious to be used out of the laboratory. Hoppe-Seyler says the Ventzke-Soleil polarisation apparatus gives, with light-coloured urine, fairly good results, but is useless if the urine is very dark. We have no personal experience of its use. As the same apparatus can be used for estimating sugar, its introduction into the Edinburgh Infirmary might be advantageous.

In explaining the conditions of the urine, local alterations of blood-pressure are duly acknowledged; but we hardly think that the difficulty of accounting for the presence of albumen with, at the same time, diminution of fluid—the two implying opposite conditions of pressure—has been made perfectly clear. We note, with regard to the amyloid form of the disease, that Dr. Stewart accepts an unnatural permeability of the blood-vessels as the explanation of the characters of the urine, and rejects the notion that it is obstruction from the diminished calibre of the vessels, with consequent increase of the blood-pressure, which is the cause of the polyuria and slight albu-

minuria. As to the true reason of the polyuria in the advanced stage of contracted kidney, Dr. Stewart is silent. Nevertheless, we think, having a view to the small kidney and the big heart, there can be but little doubt that increased pressure is the true cause.

There are so many points of interest in connexion with this subject that we have no time to touch upon them all. There, for instance, is the causation of dropsy, the origin of the nervous symptoms, and many others we should like to discuss, but forbear. As to the dropsy, where do we see it first? In parts where the subcutaneous connective tissue is loosest or contains no fat. It is a fact that most frequently in renal dropsy the effusion begins at some such elected spots—not, as in cardiac dropsy, where the circulation is weakest only; and this surely points to over-distension of vessels, and not to impoverishment of blood as the cause of the serous effusion.

We cannot, however, discuss every question which thus arises; but we think we cannot do better than refer our readers to Dr. Stewart's pages. We cordially commend his book to their careful study.

NEW BOOKS, WITH SHORT CRITIQUES.

Notes on Nuisances: Drains and Dwellings, etc. By W. H. Fenning, F.G.S.

*** A short, popular treatise on a subject now engaging so much of public attention. It treats very ably of sewer-gas, gas, decaying organic matter, paper on walls, damp, smoke, and sundry nuisances; and there are chapters on ventilation, air-shafts, and on the prevention of nuisances.

Transactions of St. Andrews Medical Graduates' Association, 1870. Edited by Dr. L. W. Sedgwick. J. and A. Churchill.

*** A volume highly creditable to the Association, and containing several papers of great interest and importance.

GENERAL CORRESPONDENCE.

ELIMINATION IN SMALL-POX.

Letter from Dr. G. Johnson.

[To the Editor of the Medical Times and Gazette.]

Sir,—Your correspondent "M.B." quotes my statement that the choleraic discharges "are as essentially curative as is the cutaneous eruption of small-pox," and upon this he proceeds to argue that if I believe this I ought to treat my small-pox patients "by closed doors and windows, roaring fires, etc.," the object of this highly rational treatment being, of course, to insure that the patient shall continually breathe an atmosphere charged with the poisonous emanations from his own skin. So, if I could convince "M.B." that the choleraic secretions are poisonous, he would obviously arrive at the conclusion that their expulsion from the bowels should be prevented, or, if this were found impossible, that the patient should be compelled to swallow them as rapidly as they are discharged. This is evidently the line of argument, and this is the logic of your correspondent, whose mode of reasoning and whose allusion to "taking up the gloves" suggest the inference that the initials "M.B." indicate, not a Graduate in Medicine, but a Master of Boxing. Why does he conceal his name, and shrink from the fame which is his due? I am, &c.,

Savile-row, February 20. George Johnson.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 6.

Mr. Hilton, F.R.C.S., President, in the Chair.

Mr. Balmanno Squire exhibited a patient the subject of Lupus in a very early stage. The same patient some years ago had suffered from lupus of the nose and chin; she was then very bad, and was ill for several years. At the present moment another attack was commencing. He had only seen one other case as early as this. The original sore had been healed since 1865. The one now present affected the middle of the right cheek, where it looked somewhat œdematous.

Dr. Moxon read a report on Dr. Greenhow's "Billiard-ball" Tumour. He thought it had grown, not by aggregation, but by true nutrition from the peritoneal juices.

Mr. Heath showed a specimen of Fibro-cystic Tumour of the Jaw, removed from a patient aged 22, who had been the subject of the disease for six years. The cyst in its interior discharged into the mouth; but its size was the main inconvenience. He divided the jaw, and proceeded to remove the tumour by section of the tumour below the articulation. The patient did well. The tumour resembled that described by Mr. Wagstaffe last year. Its structure seemed glandular, with an apparent epithelium.

Dr. Liveing exhibited a specimen of Diseased Liver taken from a patient aged 21, from whom no history of syphilis could be obtained. He suffered from diarrhœa and vomiting, and had caries of the skull. After death the liver was found large and dense, with puckerings like those of syphilis on its surface, and some amyloid infiltration through it. The kidneys were small and amyloid. The spleen gave amyloid reaction with iodine. There were ulcers in the intestine, and the lung was affected with chronic phthisis. The urine was light in colour. In reply to Dr. Quain, he said there were no marks indicating communication between the intestinal ulcers and the liver.

Dr. Moxon said, with reference to the urine, that in amyloid kidney disease it was usually very light, but in one case he remembered it was dark-coloured and highly loaded.

Dr. Gowers next showed a Large Liver, the enlargement being cancerous, from a patient at the Hospital for the Paralysed and Epileptic. The mass had affected the lumbar glands, and there interfered with the functions of the cord. The matter in the liver was soft, almost diffluent, and seemed contained in something like cysts.

In reply to Mr. Hulke, Dr. Gowers said the liver disease was probably secondary.

Mr. W. Adams asked, with regard to some cancer found in the breasts, if it was in both, as that was rare.

It having been elicited that nodules were found in both breasts,

Mr. Arnott said he had seen eight or twelve instances of double mammary cancer in two or three years.

Mr. Sidney Jones had at the present moment two cases of double cancer under his care; and

Mr. Jonathan Hutchinson had seen three where the cancer seemed primary in both.

Mr. Arnott had not been able to satisfy himself that it ever arises in more than one spot at a time.

Mr. Hutchinson exhibited a specimen of Malignant Growth removed by amputation above the knee. The patient, a healthy married woman, had for fifteen months suffered pain and inconvenience between the tibia and fibula on one side. He tried syphilitic remedies, but she got worse rather than better. He examined by incision, and found a mass extending up in front of the bones, which was deemed malignant. He removed the limb, and found the muscles infiltrated, but no direct communication with the bone, which was discoloured. In some muscles the new material was tolerably well isolated. He considered the growth infecting, and allied to medullary cancer, if not that growth. (Referred to the Morbid Growth Committee.)

Mr. Sidney Jones thought this was something like a periosteal swelling which occurred in his practice. It existed in the limb and in masses in the scapula and muscles. It proved to be syphilitic.

Mr. Hutchinson said he remembered that case. Was there any determination as to its being cancer or syphilis? This was not syphilitic.

Mr. Moxon said that in syphiloma of the liver the portal glands might be secondarily affected.

Mr. S. Jones agreed with this, as in gumma of the arm there may be swellings in the axilla. He could give no recent history of the case. He thought there was no return some years after.

Dr. Thorowgood exhibited a Biliary Calculus, which gave rise to no symptoms during life. It was heavier than usual.

Dr. King exhibited an Aneurism of the Aorta, which had been perforated by a rib, and which gave rise to embolism of the cerebral artery. The patient, a male aged 42, in a street row got a blow, and fell. After this a swelling appeared below the clavicle, and a pulsating tumour could be discovered to the right of the sternum. There was no dyspnœa at first, but the tumour increased in size. One night, turning in bed, he became insensible, his breathing stertorous, and he died. Blood was effused over the brain, and the corpora striata were softened. The left middle cerebral was plugged with black clot. There

was an aneurism of the aorta in the first part of its course, and the sternum was eroded, as was the first rib, which had been fractured and united again irregularly. The fractured ends had perforated the true aneurism, and had formed a false aneurism. The first aneurism had its wall thickened from clots.

In reply to the President, it was stated that the upper portion of the bones only had united.

In reply to Dr. C. T. Williams, Dr. KING said the pupils, as observed during life, were even.

Mr. JABEZ HOGG showed a Madura Foot, in which the diagnosis had been made out moderately early. An abscess had begun on the sole of the foot. It was opened, and a poultice applied, on which some of the characteristic truffle-like bodies were found. Madura foot was common in the village to which the man belonged. He had found some black, soot-like bodies in the tissues, which had a fungoid appearance.

Mr. ARNOTT asked if the fungus was the essence of the disease, or if it was only introduced. Most specimens were examined too late to determine this point.

Dr. MOXON recorded a case of Subacute Red Atrophy of Liver. He said this case shows very conclusively that there is a change of the liver towards which acute atrophy stands as a severe or violent degree of the same thing; so that this change itself, which is a red atrophy, is a slower or less intense degree of acute yellow atrophy. The liver was from the body of a woman who died in Guy's Hospital, having been under his care for jaundice, which lasted eight weeks. She was the mother of six children; but at the time of her seizure was living with a man who was not her husband. She was suckling, and not pregnant. Two bottles of brandy were found one day under her pillow, and she seemed drunk. She died five days after with symptoms of acute yellow atrophy of liver. The liver was partly bright yellow and partly deep blood-red—the latter colour about the great vessels chiefly. This red part showed great thickening of the vascular network, with semi-recent lymph; and pus-like cells were around the portal vein. In this country it has never been shown that acute yellow atrophy has chronic stages producing a red atrophy with inflammatory characters; but Waldeyer and Klebs, in Germany, have published cases. Dr. Moxon had met with three well-marked examples, drawings of all which were exhibited. There is a resemblance to the described effects of phosphorus on the liver; but it is not like Rokitansky's red atrophy, which should be called brown atrophy, from its colour. A drawing of this was shown.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JANUARY 26.

Sir WM. W. GULL, Bart., M.D., F.R.S., President, in the Chair.

MR. COOPER FORSTER read a paper "On Two Cases of Popliteal Aneurism," the treatment of which, though not novel, was calculated to elicit the opinion of the Society on a most important point of Surgical practice. The first case was that of a labourer, aged 35, sent to the author by Dr. Poole, of St. Paul's Cray. An intemperate man, with good general health, he had noticed, ten days before admission into the Hospital, pain in his left knee, followed in a few days by swelling. He came under notice with all the signs of popliteal aneurism. The treatment, which throughout was by means of instrumental pressure and flexion, extended over an interval of fifty-five days. In the first instance, this was applied by a dead weight on the artery in the groin, and by a screw-tourniquet, without chloroform. A Reid's compresser was subsequently used in place of the weight. The femoral current was by this means entirely arrested for some hours each time; but this failed to produce the desired effect, and chloroform was afterwards administered, while the pressure was kept up for periods which varied in duration from nine hours and a half to four hours. The sac gradually became smaller and harder, but pulsation had not finally ceased till December 23. The man left the Hospital well on January 3. The second case was that of a gentleman, aged 34, strong and hearty, given to athletic exercise, who felt pain in the calf of the right leg five months before he first came under notice; and two months later, he had pain and pulsation in the popliteal space. Two months more elapsed, during which time he walked about and took no notice of his leg, and then he consulted a Surgeon, who applied instrumental pressure to the sac itself. This gave excruciating pain, and no improvement resulted. When the author saw him, the popliteal space contained an aneurism the size of a small orange, in which pulsation was very strong, and not arrested by flexing the leg to the utmost. Much swelling of the leg, moreover, existed, with excoriation of skin, the result of the previous treatment. The treatment was by pressure—instrumental for the first three days, by means of weights in the groin and a tourniquet in the middle of the thigh; this produced no effect. Digital pressure was then resorted to, three of the patient's friends compressing the femoral alternately for periods of ten minutes, the author of the paper sitting with his hand on the tumour to guard against the return of pulsation. The aneurism was cured by this means in three hours and a half. Mr. Forster thought that, to insure success, the great point to be attended to was that the current of blood through the sac should be completely arrested, and this in opposition to the view first held by Bellingham. Another question also arose as to when pressure, if adopted, should be discontinued in favour of ligature, and as to when it was unadvisable in the first instance. The author, from a review of of his whole experience in this disease, questioned whether pressure would not always be successful if tried with patience, and carried out with care. And for his part, he expressed the opinion that the disadvantages, even where chloroform was necessitated for long periods, were so insignificant, and the *primâ facie* physiological arguments so strong in its favour, that he did not hesitate invariably to try it, and as yet he had done so always with success.

MR. ERNEST HART said that the first object of the Surgeon was completely to control the circulation. The prevailing doctrine, that aneurism should be treated so as to obtain spontaneous cure by successive layers of lymph, had no real foundation. Surgeons should, he thought, discard the idea of the deposition of layers of lymph. It was in the effort to avoid pain caused by the complete stoppage of the blood that the Irish Surgeons tried to cure by the small current. There was now no reason why we should not aim at complete obstruction, aided, as we now are, by chloroform. There were now numerous cases of cure from complete stoppage of the circulation, thirty-four cases in which flexion had been successful, and in two of these all other methods failed.

MR. CAMPBELL DE MORGAN said that cases treated by pressure varied, some aneurisms remaining uncured for months, even in cases in which digital pressure was applied for hours and hours together. He alluded to one case in which, after pressure was removed, the tumour existed much as before; and related a second case in which digital pressure was applied, but afterwards, when the man died, no layers of fibrine were deposited, and no outlet to the sac could be found. Some cases, no doubt, occurred in which pressure failed.

The discussion was adjourned until February 9 on the motion of Mr. HULKE, seconded by Mr. BARWELL.

FRIDAY, FEBRUARY 9.

E. H. GREENHOW, M.D., F.R.S., Treasurer, in the Chair.

The discussion on Mr. Cooper Foster's paper on the "Treatment of Popliteal Aneurism" was resumed by Mr. Barwell. In the middle of May, 1870, Mr. Barwell, and Mr. Cadge of Norwich, together with Dr. Beverly, treated a gentleman, aged 38, for a right popliteal aneurism due to violent exertion. Dr. Carte's apparatus was applied, and the screws carefully adjusted. No lowering diet or remedies were given; neither opium nor chloroform was administered. Chloral acted well the first time; but on a second trial so uncomfortably, that the patient declined to take it again. The patient was possessed of remarkable patience and fortitude. Nevertheless he described to Mr. Barwell that on the morning of the fifth day he felt that he could go on no longer; the artery throbbed violently and rapidly, the screws jumped with each beat, and he himself felt dispirited and exhausted, when the artery quite suddenly gave up the fight, and he felt quite comfortable and at ease. The cure thus effected in five days was confirmed by a fortnight's rest. The author drew attention to three points:—1. This cure was followed for three months by pain, and although the patient could in the same winter (1870-71) both dance and skate, yet walking at that time provoked pain. In one of the cases detailed at the last meeting by Mr. Forster, severe pain existed six years after the cure. This pain, Mr. Barwell believed, was a constant sequel, and yet no writer has mentioned it. 2. In reference to the choice between rapid and gradual cure by compression, he agreed with Mr. Hart that an aneurism cured in three hours and a half, in three-quarters of an hour, and, *à fortiori*, in twenty minutes, must, as far as danger from gangrene was concerned, be in the same position as one cured by

ligature; hence, in an old enfeebled constitution, the choice of method must be influenced by this consideration. 3. The peculiar exacerbation of pain and throbbing just before the cure of the aneurism gave occasion to compare this case with certain published ones of spontaneous cure as well as with some results of pressure treatment.

Mr. Maunder observed that the danger of gangrene under the rapid method was very slight. He believed that metropolitan Surgeons were not in the habit of tying the femoral artery for popliteal aneurism until pressure had been tried. The statement of Mr. Forster, that he had never required to ligature the femoral for popliteal aneurism, was more or less valuable according to the number of cases he had treated.

Mr. Lawson related particulars of a case in which, after three-quarters of an hour's pressure, the patient, who was under chloroform, became faint and exhausted; and four hours afterwards the tumour-pulsation ceased entirely, and remained in this condition.

Mr. Hulke thought that Mr. Lawson's case was a mixed one, as compression had been tried three weeks before, by which collateral circulation may have been established. It seemed to him not so safe to have a loose black clot as a tough fibrinated one. He alluded to one case in which, after rapid cure, suppuration of the sac took place, and ended fatally; and other two in which recovery took place after amputation of the limb.

Mr. Arnott referred to the auxiliary means open to the Surgeon, of diminishing the heart's action by drugs.

Mr. John Croft expressed the opinion that the circulation in some, at least, of these cases was not completely arrested. He related a case cured in forty-eight hours, in which the clot was laminated and partly spongy, through which, however, a small passage ran.

Mr. Hulke asked if Mr. Forster, or any other gentleman present, had any personal experience of the treatment of aneurism by kneading, breaking up the fibrinous clot, and plugging up the distal end of the artery.

Mr. Ernest Hart said that in St. George's Hospital Museum there was a beautiful specimen of aneurism with a passage between the clots, in which the aneurism was cured, the man dying of another disease. The proportion of accidents occurring in the sac was less in rapid than in slow cures.

Mr. Thomas Smith had seen sudden swelling, with great pain, of an aneurism occurring, in which the symptoms were thought to be caused by the bursting of the aneurism, but proved to be really symptoms of cure.

Mr. De Morgan related two cases of spontaneous cure of aneurism in men, both of whom had been in great agony for a time, but shortly afterwards the pain suddenly left, and they were cured. He thought such cases were explained by the rapid increase in the size of the aneurism caused by its distension with blood. This was brought about by a detached clot, which acted like a valve to the opening of the aneurism, and closed at the end of each systole, thus retaining the blood which had been pumped into the sac by the systole. The distension become ultimately so great as to cause rupture of the aneurism. No bad results followed. In reply to Mr. T. Smith, he said that plugging of the distal extremity of the artery or aneurism would not explain the symptoms, for Brasdor's operation did not produce pain and swelling of the aneurism.

Mr. Barwell, in reply to some remarks on his paper, observed that low dieting made the patient weak and irritable, and that Vanzetti used to give wine to his patients during operation.

Mr. Cooper Forster, in reply to Mr. Maunder, said that he could not at the moment recall the number of cases of popliteal aneurism he had treated, but they numbered at least seven. The principal object of his paper was to urge more confidence in the method by pressure, and to call forth opinions as to the length of time pressure is to be applied before ligature should be used. He wished to encourage the use of the pressure method until the operation was made always successful in popliteal aneurism, and also the method by flexion. In popliteal aneurism there was a long vessel, the femoral, where one could apply pressure easily and get a clot. The advantage of complete pressure was this, that a return current from the collateral vessels could be got. He did not at all approve of kneading the artery.

Mr. J. W. Hulke read a paper on "Cases of Cancer treated with Condurango" in the Middlesex Hospital. The author and his colleague, Mr. Campbell De Morgan, were enabled by the present of a parcel of condurango bark by an American Surgeon to begin, in November last, a second trial of this reputed remedy for cancer. When this supply ran short, the trial was continued with bark bought of Messrs. John Bell and Co., and with a fluid extract very liberally placed at the author's disposal by its makers, Messrs. Bliss, Keine, and Co., of New York. After briefly noticing its natural history, and the physiological and therapeutic properties assigned to the condurango, the author proceeded to relate two cases of ulcerated hard cancer of the female breast, and one of rodent cancer of the face, in all of which the exhibition of the reputed remedy failed to modify favourably, or to retard the progress of the disease. The result of this trial confirmed the author's first one, made in August and September last, which showed that, as a remedy for cancer, condurango was absolutely inert.

Mr. De Morgan also read a paper containing a report of three cases treated at the Middlesex Hospital, showing the uselessness of condurango; and he mentioned others which had come to his notice, tending to prove the same thing. He considered it very important that the fact should be widely made known that this and other so-called remedies for cancer had really no effect on the disease, as statements of wonderful cures were inducing the public to put faith in them, and to waste time and money in their trial. Of the cases on which he had tried the medicine, two were advanced cancers of the breast, and one was uterine. The patients were suffering generally from the effects of the disease, and were considered fit cases on which to try the experiment. The medicine was given regularly and carefully in the manner directed. In no one instance was there the slightest improvement in the conditions of the local disease, which advanced at the same rate as before; neither was there any diminution of pain or discharge, or any change for the better in the characters of the ulcerations. There was not, moreover, any general improvement. For a day or two they thought they had a better appetite, but this was the mere transient change one always sees in cancer patients. None of the changes which were said to take place in the conditions of the urine or the perspiration had been observed. Mr. De Morgan's impression was that the downward progress of these patients had not been arrested for one instant by the agency of the drug.

Mr. Arnott, in remarking on the great value of these contributions, observed that Mr. De Morgan and Mr. Hulke, who had had so much experience in the cancer wards of the Middlesex Hospital, should make it distinctly known that there was no anatomical proof of a constitutional disease in cancer, and therefore we could not expect any general remedy to affect this local affection. He alluded to the cases which had by one or other of the various local means been cured.

Mr. Thomas Cooke stated that Mr. Pearce, of the Westminster Hospital, had employed condurango in several cases, and had arrived at the opinion that the drug was a tonic, but quite ineffectual as a remedy in cancer.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, February 17.

Dr. Druitt, President, in the Chair.

The Chairman read a communication from John Dougall, M.D., of Glasgow, "On the Relative Powers of various Substances in Preventing the appearance of Animalcules in Organic Fluids."(a)

Dr. Albert J. Bernays, Professor of Chemistry at St. Thomas's Hospital, then read a paper "On the Precautions which should surround Toxicological Investigations in Medico-legal Cases, and on Evidence in Courts of Law." Speaking first of evidence in courts of law, Dr. Bernays little thought that such a commentary as that furnished by the cases of the Rev. Mr. Watson and Miss Edmonds would have been supplied by way of illustration. He must say that the manner in which the experts were received, especially in the latter case, was a disgraceful feature in the trial. Speaking as a student of chemistry, and as having considerable experience in toxicological analysis, he would put forward what precautions he considered ought to surround Medico-legal investigation. In all suspected cases he considered that the post-mortem examination should be conducted by an expert, in the presence of the local Medical man, that the truth might be established by two, if not three witnesses. These two gentlemen ought to agree beforehand on the method of proceeding, and nothing should be left

(a) This shall be given in our next number.—Ed. *M. T. and G.*

to haphazard. The evidence should be at once committed to writing, and signed by the witnesses. Next, as to the question of who is to make the analysis, and how it is to be made. All would agree that the work ought to be done by a practised hand. Very few Medical men could trust themselves to make an analysis, unless they devoted themselves to the practice of chemistry as a profession; neither had Medical men the time necessary. Analysis in cases involving life and death should not be left to one individual, whatever his talents. The work should be carried out by three persons, two of these being experienced in chemical analysis. The jury of experts that he would select would be the local Physician, a chemist with a Medical degree, and a practising chemist. Thus the work would be undertaken with a greater sense of responsibility than at present. An important question remained, as to who were the Physicians and chemists to be called in. Here Dr. Bernays entered a vigorous protest against the system of centralisation, by which all analytical work is given to two or three men, however able they might be. The selection should be made from a wider sphere. Why should not men of science be encouraged to settle in various parts of the kingdom, and opportunities be afforded them of enlarging their experience? The coroner ought to be able to call upon a competent person residing in his district. In case of dispute arising between two parties, it might be the interest of one party to prove death by poison (say of an animal grazing near mining works), and of the other party to prove natural death; ought the analysis to be left to one individual in such a case? The interests of both parties would be provided for by having three present. If the chemists were told what was the poison suspected, there would be a great saving of labour and expense. A point more important than all the rest was, How is the evidence to be given? Here Dr. Bernays made a severe commentary on the procedure in our courts of justice. In most cases the contention is for victory rather than truth. The richest man can secure the best defence. The evidence cannot be "the whole truth" when we simply tell *our* story. Too much liberty is given to counsel to suppress evidence. As regards scientific witnesses, the great object of opposing counsel is to confound them; and many of the most learned men were the most nervous and least positive on such occasions. For this reason Dr. Bernays thought a better mode would be, that experts should give their evidence in writing, and it should be published before the trial, so that no one might be taken by surprise. He thought that the examination of scientific witnesses ought to be left entirely to the discretion of the judge, and that counsel should be allowed only to suggest the questions to be put. In nuisance cases the matter ought to be referred to seven men, Medical and chemical, three to be selected by each side, the seventh to be appointed by both sides conjointly, and these seven to be exclusive of the Medical Officer of Health; and that only in cases of non-agreement should the matter be brought to public trial.

The Chairman read a letter from Dr. Letheby, in which he said he had been long convinced that the whole procedure of Medico-legal inquiries required amendment, and that this could be done, especially in the early part of such inquiries, under the direction and supervision of the Medical Officers of Health. They, and not the coroner's beadle, should set the coroner in action, be present at the post-mortem examination, should witness the results, and be able to add their unbiassed testimony.

Dr. Ross had found the necessity for a more competent referee in these cases. He mentioned an instance showing that provision was not made for the payment of such an analyst when grave interests were at stake.

Dr. Barclay agreed with Dr. Bernays as to the unsatisfactory manner in which evidence was taken, and especially as to the treatment scientific men were subjected to in courts of law. He objected to the affidavits of witnesses being so modified by the lawyers on either side as frequently to alter their bearing. Scientific men ought to be allowed to state their opinions in an independent and unbiassed manner. He did not think the e was much hope of getting Dr. Bernays' scheme passed; but by agitating improvement might be brought about in course of time, perhaps in coroners' cases first of all. The first step would be the appointment of a public prosecutor.

Dr. Lankester thought Dr. Bernays' paper was very much in advance of the time. During his experience he had found great incompetency in ordinary Medical witnesses, and the fault he attributed, in great measure, to the teachers in Medical schools and the examining bodies. When he made application to Government for more skilled assistance, he was refused. He could only give two guineas to an analyst, and that was only when the Medical man consented to relinquish his fee. He believed Medical Officers of Health might be made very useful in the coroner's court, although all were not equally competent to make toxicological examinations. He thought every coroner ought to be allowed an expert. In his district it could easily be done if the Medical men consented to give up the fees for post-mortem examinations. These amounted to £1500, and would pay the salaries of two experts, who would have quite sufficient occupation. While condemning the present legal procedure, he thought that a National Board of Assessors, consisting of from twenty-five to fifty of the most competent men in the country, would decide disputes more readily and more ably. Yet he confessed his plan in life had been to keep in the old groove, and let improvements and modifications be gradual. In answer to Dr. Ross, Dr. Lankester said that the initiative might well be left to the coroner's constable; the questions he had to ask were all drawn up for him, and he had merely to fill them in and bring them to the coroner. He considered it was the oath that gave substantiality to the coroner's court, and gave a case very much in point.

Dr. Stevenson agreed with most of the contents of the paper, but thought, with Dr. Lankester, that changes should be gradual. Dr. Bernays' scheme would involve great expense.

OBITUARY.

THOMAS BENJAMIN PROCTER, M.D.

Dr. Procter had for many years retired from the active pursuit of the Medical Profession. He died on January 18, in his 72nd year. He was born at Leominster, where his father had lived in practice as a Medical man for some years. After qualifying, he settled at Lieutwardine, in Herefordshire, where he practised successfully for about fourteen years, when he removed to Stockwell, and there practised until his ultimate retirsment from the Profession, in the year 1850. He was a successful Practitioner, securing the confidence of his patients in a remarkable degree; a keen, intelligent observation, with great confidence and self-reliant decision, characterised his practice. A studious and well-read man, his mind was richly stored with information on many subjects outside the pale of his Profession. He was well versed in some of the collateral sciences, more especially geology and natural history, valuable collections of objects of interest in both of which sciences he accumulated. He enriched several museums both here and on the Continent with geological specimens especially from the Silurian strata. His principal published work was his "Treatise on the Sympathetic Nerve," a work which, on its appearance, was considered valuable as displaying considerable originality in the views he propounded. Dr. Procter married Susan, daughter of R. Woodhouse, Esq.; she survives him.

LEGAL INTELLIGENCE.

COURT OF QUEEN'S BENCH, Guildhall, Feb. 19.

(*Sittings at Nisi Prius, before the* Lord Chief Justice *and a Common Jury.*)

Johnson *v.* Carpenter.

This was an action for libel, brought by the Medical Officer of the district of Camberwell against another Medical man in the parish. The alleged libel was contained in a series of letters written by Dr. Carpenter to the Board of Guardians, in which he complained of the plaintiff, as Medical Officer of the Union, for neglect of duty.

Mr. Murphy was for the plaintiff; Mr. Morgan Howard was for the defendant.

The alleged libel appeared to have been contained in two letters addressed by the defendant to the Local Government Board, calling for an investigation to be had into the circumstances of a recent case of a pauper patient whom the plaintiff had attended, and stating that his conduct in that matter was but a specimen of some others with which the defendant was acquainted. The defence set up was that the communication in question was privileged.

Evidence was entered into at great length on each side, and both the parties were called as witnesses.

The Lord Chief Justice, in summing up, explained to the jury that in the case of a privileged communication it was incumbent upon the defendant to show that the allegations

he had made were not actuated by any malicious motive, and that he had such evidence of their truth as would induce a reasonable man to believe in it. It was not required for him to prove the actual truth of the circumstances. His Lordship then passed in review the different cases cited by the defendant of the plaintiff's negligence, and drew the attention of the jury to the circumstance that the defendant had not published a pamphlet or in any way unnecessarily made public his complaint, but had merely directed himself to the proper authorities—the Local Government Board. The jury were to decide whether in these matters the defendant had acted with entire *bona fides*, and in a way in which a person zealous for the public good, acting upon information which he might reasonably believe to be true, would act, or not.

The jury retired from the box, and after half an hour's deliberation returned their verdict for the plaintiff—damages, £5.

Mr. Marshall Griffith applied for a certificate.

Mr. Abbott (for Mr. Morgan Howard) applied for a stay of execution, on the ground that the verdict was against the weight of evidence adduced to rebut malice.

The Lord Chief Justice said that if he granted the certificate he would grant the stay of execution, but that he would consult his brothers and announce his determination.

MEDICAL NEWS.

Royal College of Physicians of London.—At an extraordinary meeting of the College on Monday, the 19th inst., the following gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were granted licences to practise Physic, including therein the practice of Medicine, Surgery, and Midwifery :—

Baber, Edward Cresswell, M.R.C.S., 34, Thurloe-square, S.W.
Bland, George, who passed his examination in Medicine, October, 1871, and has obtained a recognised qualification in Surgery.
Hammond, Robert Edward, M.R.C.S., 17, Booth-street East, Chorlton-upon-Medlock.
Kiddle, John Nelson, M.R.C.S., Guy's Hospital.
Ticehurst, Charles Sage, 11, Carlisle-parade, Hastings.
Tweedy, John, University College Hospital.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 15 :—

Armstrong, Edward John, Wiesbaden.
Price, Hugh Pugh Jones, Hulme, Manchester.
Sloan, Ebenezer Erskine, Lisburn, Ireland.
Smith, George Francis Firby, Northampton.

As Assistants in Compounding and Dispensing Medicines—

France, Joseph, Rotherham.
George, John, Kidderminster.
Hannaford, William, Irthlingborough.
Lingwood, William, Kensington.
Parson, Henry James, Ely, Cambridge.

The following gentlemen also on the same day passed their first Professional examination :—

Anderson, William Henry, St. Mary's Hospital.
Boddy, Evan Marlett, Guy's Hospital.
Johnson, Cottingham Greaves, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barry, John Collins, L.F.P.S. Glasg.—Medical Officer, etc., for the Ballyduff Dispensary District of the Lismore Union.

Bonney, William Augustus, M.R.C.S.E. and L.S.A.—Medical Officer for the North-Western District of the Parish of Chelsea.

Collet, A. H., B.A. Cantab., M.R.C.S., L.S.A.—Surgeon to the Worthing Infirmary.

Creswell, J. C., Member of the Pharmaceutical Society—Non-Resident Dispenser at the Male Lock Hospital.

Davidson, M.A., M.B., Assistant-Physician to the Children's Hospital, and Lecturer on Pathology at the Liverpool School of Medicine—Physician to the Liverpool Northern Hospital.

Franklin, G. C., L.R.C.P. Lond., M.R.C.S.—Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria-park.

Gibson, Daniel, M.R.C.S.E., L.S.A.—Medical Officer for the Western District of the Kingston-upon-Hull Incorporation for the Poor.

Orchard, Thomas N., M.B., M.C.—Assistant Medical Officer to the Workhouse of the Salford Union, Manchester.

Petit, Joseph, L.K.Q.C.P.I., L.R.C.S.I., and Licentiate in Midwifery—Medical Officer for the Dunshaughin Workhouse.

MILITARY APPOINTMENTS.

6th Dragoon Guards.—Staff Assistant-Surgeon William Wakefield, M.D., to be Assistant-Surgeon, *vice* James Landale, M.D., promoted on the Staff.

16th Lancers.—Staff Assistant-Surgeon Robert Davidson Kemp, M.B., to be Assistant-Surgeon, *vice* James M'Cully, M.D., appointed to the Staff.

Royal Artillery.—Staff Assistant-Surgeon William Kippen Stewart, M.D., to be Assistant-Surgeon, *vice* Alexander Watt Beveridge, M.D., promoted on the Staff.

62nd Foot.—Staff Assistant-Surgeon William Alexander Duke to be Assistant-Surgeon, *vice* Howison Young Howison, M.D., who exchanges.

78th Foot.—Staff Surgeon Alexander Watt Beveridge, M.D., to be Surgeon, *vice* Valentine Munbee M'Master, M.D., V.C., deceased.

Medical Department.—Staff Surgeon-Major Alfred Crocker to be Deputy Inspector-General of Hospitals, *vice* John Elliot Carte, M.B., C.B., who retires upon half-pay ; Assistant-Surgeon Alexander Watt Beveridge, M.D., from the Royal Artillery, to be Staff Surgeon ; Assistant-Surgeon Howison Young Howison, M.D., from the 62nd Foot, to be Staff Assistant-Surgeon, *vice* William Alexander Duke, who exchanges ; Assistant-Surgeon James M'Cully, M.D., from the 16th Lancers, to be Staff Assistant-Surgeon, *vice* Robert Davidson Kemp, M.D., appointed to the 16th Lancers.

Brevet.—Deputy Inspector-General of Hospitals John Elliot Carte, M.B., C.B., retired upon half-pay, to have the honorary rank of Inspector-General of Hospitals.

BIRTHS.

Faught.—On January 6, at Morar, Gwalior, India, the wife of J. G. Faught, Staff Surgeon, of a daughter.

Furber.—On February 14, at 7, Ashford-road, Maidstone, the wife of George Henry Furber, Surgeon, of a daughter.

Leighton.—On February 12, at The Danes, near Hertford, the wife of E. I. Leighton, M.B., of a daughter.

Ord.—On February 16, at 16, Streatham-paragon, S.W., the wife of Dr. William M. Ord, of a daughter.

Swales.—On February 14, at Alexandra-terrace, Sheerness, the wife of Peter Swales, Surgeon, of a daughter.

MARRIAGES.

Bligh—Willett.—On January 31, at the British Consulate, Pau, France, and subsequently by the Rev. George Brown, John Bligh, of Cavan, Ireland, to M. A. Alice, younger daughter of the late John Willett, M.D.

Carter—Emmott.—On January 25, at Allygurh, North-Western Provinces, India, Frederic Carter, Surgeon 1st Ghoorka Regiment Light Infantry, to Agnes Jane, only daughter of the late Christopher Browning Emmott, M.D., of Egham, Surrey.

Hatchell—Cope.—On February 6, at St. Paul's Church, Bursalem, Frederick Hore Hatchell, L.R.C.S. Ireland, youngest son of the late Captain C. H. Hatchell, 76th Regiment, to Clara Ellen, third daughter of the late W. S. Cope, Esq., of Port-vale House, Longport.

Marris—Sinclair.—On February 15, at St. Giles's Church, Camberwell, Charles Marris, Esq., Freswick House, Sparkbrook, Warwickshire, son of the late Rev. George Marris, to Jessie Sophia Euphemia, only daughter of Donald Sinclair, M.D., Peckham, Surrey, niece of Sir John Sinclair, of Barrock, Bart.

DEATHS.

Breakey, Jane Kennedy, youngest child of Dr. Breakey, R.N., at the Royal Naval Hospital, Plymouth, of scarlatina, on February 16, aged 4 years.

Cockburn, James Balfour, second son of the late Dr. Archibald William Cockburn, at 12, Darnaway-street, Edinburgh, on February 12, aged 20.

Galen, Alexander, son of the late John Galen, M.D., of Aberdeen, at Kensington, on February 13.

Maxwell, Ernest Arthur, third son of Peter Maxwell, M.D., at Stickney, near Boston, Lincolnshire, on February 15, aged 2 years and 9 months.

Pierpoint, Nathaniel Bradford, M.D., M.R.C.S., and L.S.A., of 23, Little Pulteney-street, Golden-square, at Hastings, on February 11, aged 53.

Straker, Dr. Adolphus William, Professor University College, at 73, Offord-road, Barnsbury, on February 17, aged 45.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birkenhead Borough Hospital.—Assistant House-Surgeon. Candidates must be registered Medical Practitioners. Applications to the Chairman of the Weekly Board, on or before February 26.

Birmingham and Midland Eye Hospital.—Honorary Surgeon. Must be F. or M.R.C.S.E. Applications to Mr. James G. Gell, Secretary, on or before February 27. Election on March 19.

Birmingham Queen's Hospital.—Resident Physician and Medical Tutor Candidates must be Graduates in Medicine of a University of Great Britain or Ireland. Applications, with diplomas and testimonials, to Mr. H. C. Burdett, on or before March 22.

Bristol Lunatic Asylum, Stapleton, near Bristol.—Assistant Medical Superintendent. Must be duly qualified to practise. Applications to Mr. J. F. Williams, Clerk to the Visitors, Council House, Bristol, on or before March 5.

Caxton and Arrington Union.—Medical Officer for the Caxton No. 1 District of this Union. Candidates will be required to possess the qualifications prescribed by the General Orders of the Local Government Board. Residence within the district required. Applications to Mr. H. Mortlock, Clerk to the Guardians, on or before March 11. Election the following day.

Holborn Union.—Dispenser. Must be L.S.A., or be duly registered under the Pharmacy Act, 1868. Applications, with particulars of qualification and testimonials, to Mr. James W. Hall, Clerk's Office, Workhouse, Gray's-inn-road, W.C., on or before February 26.

Liverpool Infirmary for Children.—Assistant Medical Officer. Must be qualified in accordance with the Rules of the institution, which may be had on application to Mr. John Calder, Secretary, on or before March 6.

Margate Royal Sea-bathing Infirmary.—Resident Surgeon. Must have some legal qualification to practise. Applications to the Secretary, on or before February 29.

St. Marylebone Provident Dispensary.—Medical Officer-in-Ordinary. Must possess a Physician's or Surgeon's diploma of one of the Colleges of London, Edinburgh, or Glasgow, and be a L.S.A. Applications to the Secretary, 16A, Duke-street, Portland-place, on or before March 2.

Salop and Montgomery Counties Lunatic Asylum.—Medical Superintendent. Must be duly qualified to practise Medicine and Surgery. Applications and testimonials to the Clerk to the Visitors, on before March 1.

Uxbridge Union.—Medical Officer for the Workhouse at Hillingdon. Candidates must possess the qualifications prescribed by the General Orders of the Local Government Board. Applications to Mr. C. Woodbridge, Clerk, on or before February 29. Election on March 1.

Victoria Hospital for Children, Gough House, Queen's-road, Chelsea. —Assistant-Surgeon. Must be F. or M.R.C.S.E., and not practising pharmacy. Applications to the Secretary, on or before February 28.

Wallasey Dispensary.—House-Surgeon. Must be duly qualified and registered. Applications to Mr. W. D. Broome, Hon. Secretary, Withenfield-terrace, Liscard, Cheshire.

West Kent General Hospital, Maidstone.—Physician. Must be duly qualified. Applications and testimonials to the Secretary, on or before February 19. Election on February 27.

Weston-super-Mare Hospital and Dispensary. — House-Surgeon. Medical and Surgical qualifications required. Applications and testimonials to Mr. M. Norris, on or before March 1. Election on the 7th.

West Ward Union.—Medical Officer and Public Vaccinator for the District of Shap. Candidates must be duly qualified. Applications to Mr. J. P. Shepherd, on or before March 6. Election on the same day.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATION.

Blything Union.—Mr. H. B. Riordan has resigned the Fifth District area, 9791; population, 3681; salary £43 per annum.

APPOINTMENTS.

North Bierley Union.—James Field, M.R.C.S. Eng., L.S.A., to the Fourth District.

Norwich Union.—Wm. Summerhayes, M.R.C.S. Eng., L.S.A., to the Third District; Wm. Woodhouse, M.R.C.S. Eng., L.S.A., to the Fifth District.

St. Asaph Union.—John H. Wolstenholme, M.R.C.S. Eng., L.S.A., to the Rhuddlan District.

Scarborough Union.—John Carr, M.R.C.S. Eng., L.S.A., to the Sherburn District.

Thingoe Union.—Wm. E. S. Stanley, L.R.C.S. Edin., L.R.C.P. Edin., to the Eighth District.

The Queen has been pleased to grant the office and place of Reader of Physic in the University of Cambridge to George Edward Paget, M.D., in the room of Henry John Hayles Bond, M.D., resigned.

Dr. David Ferrier has been appointed Professor of Forensic Medicine of King's College, London.

Mr. W. A. Bonney, of 320, King's-road, Chelsea, has been appointed Medical Officer of Health for the north-west district of Chelsea.

Mr. John Atkinson, L.R.C.P. Ire., of Athboy, is a candidate for the Coronership of the County Meath, *vice* Mr. Matthew Marmion, deceased.

Dr. Goupil, a Paris Physician of some celebrity, has just been tried by court-martial at Versailles for inciting to civil war on October 31, 1870, and sentenced to two years imprisonment.

The Chelsea Vestry have fined their dust contractors £180 for neglect of duty. An amendment to reduce the fine to £50 was negatived by a large majority.

The new wing at King's College Hospital has just been completed, and furnishes accommodation for upwards of 100 additional in-door patients, besides providing increased space and convenience for the Medical staff.

The Chelsea Board of Guardians have resolved to appoint a public vaccinator. He must be a Medical Practitioner, not holding any parochial office.

The Liverpool Corporation has resolved to appoint a public analyst at a salary of 200*l.* a year.

Royal Medical and Chirurgical Society.—On Thanksgiving-day, Tuesday, February 27, the Library will be closed, and the ordinary evening meeting will not be held.

Dr. Lankester, at an inquest held a few days since on the body of a newly-born child which was found in a parcel in the Chester-road, Regents'-park, and whose death was caused by suffocation, remarked "that within the last few years over 100,000 children had been found which had met with a violent death. Such a state of things was a disgrace to the British nation." A verdict of "Wilful murder against some person or persons unknown" was returned.

It has been lately proposed to supply the town of Guildford with water from the new well in Millmead. The Guildford Local Board have issued analyses of the water by Messrs. Medlock and Wanklyn, from which it appears that the water is excellent from the chalk formation, containing a little carbonate of lime and small quantities of other salts, but no free ammonia, and merely an undeterminable quantity of nitric acid. It is, therefore, absolutely free from sewage contamination.

Belfast Medical Benevolent Society.—The annual meeting of this useful and important Society was held last week in the Society's rooms in High-street. The accounts were audited and passed. Three deaths were announced. It was determined to select a committee of management to meet quarterly; and it was resolved that a deputation should visit several places enumerated, and solicit support therefrom for the future.

The Diploma Manufacturers.—It is a source of sincere congratulation that the Senate Investigating Committee is after the diploma-dealers in real earnest. Philadelphia's high reputation as a seat of scientific learning, especially in the department of Medicine, has suffered long and severely enough at the hands of these gentry, and we trust that the present Legislature will wipe their disreputable trade out of existence. There is very strong evidence that a few men in this city have been growing rich in selling cunningly contrived diplomas to men who have disgraced themselves and imposed upon the public by buying them. The testimony already adduced is strong enough to warrant the extreme exercise of legislative power; and we look to see justice dealt out without the slightest mercy to those who have carried on this nefarious traffic to the most serious injury of the reputation of Philadelphia, and the cause of the Profession of Medicine everywhere.—*Philadelphia Evening Bulletin.*

Bromide of Sodium.—Whatever may be the real therapeutic value of the bromide of potassium in the treatment of epilepsy and other disorders of the nervous system, it has come to be generally acknowledged that its prolonged use is often attended with serious inconveniences, and even dangers—as dulness of the mental faculties, loss of memory, great muscular feebleness of the lower extremities, etc. I have heard many epileptics declare that they would rather suffer from their fits than from the condition brought on by the doses of bromide of potassium necessary to suspend their attacks, or lessen the number of them. It is, therefore, a matter of some moment to those who treat nervous disorders to find a remedy of that efficacy so largely claimed for the bromide of potassium in some affections. There is reason to believe that in the bromide of sodium a happy substitute has been found that will fully meet every indication for which the bromide of potassium has been given, while it is much better tolerated by the system, and free from the objections which are justly urged against the latter. For some time past I have habitually used the bromide of sodium in all disorders of the nervous system where before I prescribed the bromide of potassium, and, so far as my own experience goes, speak positively to this point. I have given it in a number of cases of epilepsy continuously for months without any of the unpleasant symptoms which so constantly follow the prolonged administration of the potassium salt, excepting the eruption, and with the best results in mitigating or suspending the paroxysms. Dr. Decaisne has given the bromide of sodium for a year without its producing the systemic saturation so frequent during the long and continuous exhibition of the bromide of potassium. According to Nimias, of Venice, this latter salt accumulates in the various organs, the brain, spinal cord, lungs, liver, etc., and is neither readily eliminated nor assimilated (see the *Medical World*, July, 1871, p. 31). Soda is the alkali found throughout the body, and in all the secretions, and would naturally be more readily absorbed and appropriated than the potassic salt. Another point in favour of the use of the sodic rather than the potassic salt, and which, so far as I know, has not yet been mentioned, is the fact of the depressing influence of the salts of potash on the heart when they are largely or long given.

No such effects are alleged to follow the continuous use of the salts of soda. The taste of the bromide of sodium is much less unpleasant than that of the bromide of potassium, being very like common salt, and it may be used to replace the latter, mixed with the food, as with bread-and-butter, eggs, in milk, etc. Hence it is of more easy administration than the bromide of potassium, to the taste of which some persons have invincible repugnance, and increasing with its use. It is of the first importance that bromide of sodium should be perfectly free from all impurities, particularly of iodine. Larger doses of the hydrated salt are required than of the anhydrous, for it crystallises with four equivalents of water. According to Dr. Morin (*Comptes-Rendus* of the Académie des Sciences, January and April, 1870), anhydrous bromide of sodium contains 11 per cent. more bromide than bromide of potassium. Dr. Merin and Dr. Balard—the discoverer of this salt (1826)—give the following table of the approximative amount of bromine in the corresponding quantities of bromide of sodium and bromide of potassium :—

Bromine. Grammes.	Bromide of Sodium. Grammes.	Bromide of Potassium. Grammes.
3·33	4·33	5·00
6·66	8·66	10·00
10·00	13·00	15·00
13·63	17·33	20·00
16·06	21·66	25·00
12·00	26·00	30·00

The doses of bromide of sodium are about the same as those of bromide of potassium. In epilepsy, I usually give twenty grains three times daily, and have rarely gone above that amount. It sometimes seems to cause or encourage constipation.—*Meredith Clymer, M.D.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Jordan.—Please send the lecture on approbation.

Charles Orton, Esq.—The paper came safely to hand.

Dr. Sawyer, Birmingham.—We shall be glad to receive the reports, and shall publish them as we can.

A. P.—The preparation is not to be found in the British Pharmacopœia. Most of the alterations are made under good chemical guidance. Nothing can be perfect; and if it were it would not please everybody.

Stafford.—Dr. Herbert Davies's work on the "Use of Blisters in Acute Rheumatism," was published by Churchills in 1862. He says that they eliminate acid and diminish the acidity of the urine, so as to render the giving of alkalies unnecessary or even useless.

CONTAGIOUS DISEASES ACT.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Allow me to suggest that the insertion of a clause in the above Act, treating the wilful communication of syphilis—like that of scarlet fever, etc.—as a misdemeanour, would make it much more efficient than the Acts proposed to be repealed. On information given upon oath, either to a magistrate or a sanitary inspector, power should be given to institute inquiries as to the mode of living of the person accused. Should the result prove unsatisfactory, the magistrate or sanitary inspector should be directed to order the examination of the suspected person, by a competent midwife if a woman, or by the Surgeon of the police if a man. If the person so examined should then be found affected by venereal disease, he or she should be confined, by a magistrate's order, in the syphilitic Hospital until cured, and should afterwards suffer a month's imprisonment. The proceedings to be private. Even Mr. Jacob Bright would not contend that a person commits no crime in wilfully communicating syphilitic disease.

I am, &c., H. R.

Newcomer.—Write to the oldest established Practitioner, tell him of your qualifications, and of the line of practice you propose to follow; that you hope for the honour of his acquaintance, and desire to be on good terms with your Professional brethren.

B.—Dover's powder was the invention of Thomas Dover, or Dovor, M.B. His "Ancient Physician's Legacy, 1733," may be seen in the library of the College of Surgeons, or of the Medico-Chirurgical Society. He used to treat gout by first actively purging, then smoothing things down with a dose of this opiate powder, which, as he made it, contained carbonate of potassium.

The Philadelphia Evening Bulletin mistakes the position of the English Medical journals in the Medical education of women. We never objected to the Medical education of women, nor to their obtaining any public recognition which that qualification may merit, nor to the exercise of their skill amongst those who think fit to employ them. What we object to is the intrusion of women into Hospitals and schools with male students, amidst scenes which no decent woman would choose to witness unless compelled by duty.

Nix.—The case was tried before the Lord Chief Baron Pollock, and resulted in a verdict for the plaintiff.

Is it True?—It is stated, on the authority of *Nature*, that the magistrates of Chelmsford have declined to grant the use of the shire hall for a lecture on the sun, illustrated by experiments in spectrum analysis, on the ground that the electric light might endanger the safety of the building.

Not too Soon.—Bogus Diplomas.—This morning the Senatorial Investigating Committee reassembled at the Girard House for the purpose of further examining into the matter of the sale of bogus diplomas by disreputable Medical colleges.—*Philadelphia Bulletin*, February 5.

POISONING MADE EASY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You will agree with me that strychnine ought not to be publicly sold to anybody who chooses to apply for it; yet it is so sold by most chemists and druggists—not, indeed, under the name of strychnine, but in sixpenny packets, marked "Battle's Vermin Killer," and labelled, I am bound to add, "poison." The startling fact came to my knowledge in this wise :—Our house being infested with mice, a packet of the powder was procured by the servant, and mixed with some cheese. A bit happening to fall on the floor, was eaten by a little dog of mine, which soon became convulsed, and exhibited those spasmodic twitchings which strychnine always produces. Luckily I was at home at the time, and immediately forced down the poor animal's throat some castor oil and very strong tea. The beneficial results of this treatment were soon apparent, and I was shortly enabled to announce that Tiny was out of danger. But, Sir, I protest against strychnine being sold to the public, not merely for the sake of our dumb pets, but for the sake of our children and ourselves. At present, anyone possessed of sixpence may give or take a deadly dose with the greatest ease; and I would ask whether, in these days of "latent insanity," such facilities for poisoning should be allowed. We all know the carelessness of servants; is it safe to have in the house a compound containing strychnine, of which one-eighth of a grain is sufficient to kill a dog, and one-fourth of a grain to affect a healthy man?

I am, &c., THOMAS W. SALTER, F.C.S.

St. John's Cottage, New Wandsworth, S.W., Feb. 19.

Province of York.—Convocation Report on Intemperance.—The report just issued enters minutely and elaborately into the question of intemperance—the extent of the evil, the causes, consequences, and remedies. The document is free from the Utopian schemes and ideas which characterise the extreme partisans on either side of the question. It is true that it conveys no information not previously known; but it is a creditable, and we think will be a useful production.

Poor-law Medical Relief.—A very long report of the proceedings of the late meeting at Worcester is contained in the *Worcester Chronicle* of February 21. Dr. Rogers' speech is given in full. It is exhaustive and instructive; but it is too long to be more than referred to here. It will well repay perusal. The *Chronicle* can be obtained by order of Dawson and Co., newsagents, Warwick-square.

This Patient and That.—An old contributor writes thus :—"Within a few days I have had experience of two very different styles of reception. In the first instance, I was sent for to a great hotel to see lady A., a patient whom I had attended for many years when she came to town for the season. On entering her sitting-room, 'Ah! my dear Doctor,' said she, 'How do you do?—we are so glad to see you.' You ask what is the matter. 'Why, thank Heaven, little or nothing; but we could not pass through without seeing you, and it occurred to me that Fanny has been complaining of headache lately. So we made that an excuse for sending for you.' Now for the other picture. I received a hasty and urgent summons to see Mr. B., at another hotel. I went at once; and entering the room hastily, said, 'I am afraid you are not well, Mr. B.' 'Of course not,' he growled, 'else I should not have sent for you.' I will leave it to your readers to judge which of these patients one would feel most inclined to strain mind and body in order to serve at a pinch."

THE INFLUENCE OF CHASTITY ON HEALTH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your paper of February 10, p. 109, there is an extract from Dr. Dubell's "Reports on Progress of Medicine in various parts of the World" which ought not to pass unchallenged. The "English Physician" who there propounds a theory—revolting, I honestly believe, to the large majority of my Professional brethren—obtained his M.D. degree at Glasgow in 1867; he was in practice, or rather trying to get into practice, for a very short period in Java, and it may be doubted if he had opportunities sufficient to form a sound opinion upon so difficult a subject.

He speaks of resistance to the sexual passion as "attended with bad consequences to health," while in a preceding paragraph he says that "all the unmarried Europeans either keep mistresses or resort to the public women." So that he confesses he never saw the attempt made to resist, and even had he done so his stay in the island was far too short for him to judge of the results.

I was in active practice in Java from 1857 to 1865, and never met with a case where chastity was so punished, although happily I met with many who practised it; need I say that too many cases of unchastity suffered severely? It frequently happened that young lads, fresh from the restraints of home and religious training, tempted and almost persuaded by licentious companions, argued with me the necessity of sexual intercourse. My reply was twofold—1st. Look at your stables, and those of all around you, therein you will find hundreds, nay thousands, of stallions which have been years in bondage, and yet perfectly healthy. (Most stables contain from ten to twenty horses, which are caught wild in the neighbouring island, and readily broken into carriage work. These horses are never put to the mare; mares themselves are seldom used.) 2nd. What applies to you must also apply to your sisters: if necessary for the one, then for the other also. I seldom had to argue further. My first reply was suggested, I think, by an anecdote of the old drinking days. A gentleman who objected to hard

drinking after dinner once asked his friends, on the removal of the cloth, whether they were to drink as men or as beasts. All, of course, indignantly exclaimed, "As men!" "Then," said the host, "we shall all get drunk, for nowadays it is beasts alone that drink to quench their thirst!" It does, indeed, appear that beasts can, when called upon to do so, better restrain their passions than men. I am, &c., M.D. Lond.

Melbourne.—Controversies in the newspapers on Medical or Surgical questions can have but one effect on the Profession—that of lowering it in the eyes of the public. The case of Turner *v.* Van Hemert is no exception to this rule. The evidence given at the trial was not calculated to settle the real question at issue; and we think if a new trial had been granted the defendant would have succeeded in reversing the verdict of the jury. We cannot commend the letters of Mr. Beaney and Mr. Crooke in the *Argus* of December 18.

Q.—A letter from Dr. Letheby was read at a late meeting of the Health Officers' Association, and was taken down by our reporter; but how it escaped publication we cannot well say. It is to the effect that he had declined to sign a Medical memorial to the Home Secretary in favour of the Contagious Diseases Acts, which had been extensively circulated with a view of getting signatures. "I fear," he says, "that such a method of getting up what is no other than an *in terrorem* expression of opinion is likely to be misunderstood and to be abused. I regret, indeed, that I signed a similar sort of document on the subject of the Medical use of alcohol, notwithstanding that my opinions were in accordance with it."

The late Frederick Lewis, M.R.C.S.E.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the *Times* of last Wednesday appeared an announcement of the death of Frederick Lewis, M.R.C.S.E. The identity of both name and title with those of the Senior Surgeon of this Hospital has been the cause of much pain and annoyance.

May I beg the early insertion of this letter; for, besides allaying the anxiety of friends, it may, perhaps, limit the number of inquiries regarding a vacancy which has, happily, never occurred.

I am, &c., T. C. Hepworth, Secretary.

Western Ophthalmic Hospital, 155, Marylebone-rd., W., Feb. 21.

Alpha.—By 18 Geo. II., cap. 20, sec. 1, "No person shall be capable of being a justice or of acting as such for any county, riding, or division, who shall not have, either in law or equity, to and for his own use and benefit in possession, a freehold, copyhold, or customary estate for life, or for some greater estate, or an estate for some long term of years, determinable upon one or more life or lives, or for a certain term originally created for twenty-one years or more, in lands, tenements, or hereditaments in England or Wales of the clear yearly value of £100; or who shall not be seized of or entitled to the immediate reversion and remainder in lands, etc., in England or Wales which are leased for one, two, or three lives, upon reserved rents, and which are of the clear yearly value of £300."

"*The Nation's Wave of Suspense.*"—There has been sent us a lithographed sheet bearing this title, and combining in a concise tabular form all the particulars of the illness from which H.R.H the Prince of Wales has happily recovered. In one column are copies of every bulletin; in another a kind of diagrammatic representation of the amount of his danger from day to day; and in a third there are memoranda of the visits of his Physicians and of the prayers offered in the churches. Piety and loyalty may be gratified by ordering this sheet from Messrs. Houlston and Sons, Paternoster-row.

The "Medical Directory."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The gentlemen who have compiled so ably the "Medical Directory" seem to have created "a tempest in a teapot." Seldom has more virtuous indignation been manifested than by those who imagined themselves aggrieved by their titles not having been fully appended to their names. It is the verification of the old adage—"He who desires to please everyone pleases no one." The only criterion for the editors of the "Directory" was the registration by the Medical Council; as my case was exceptional, I will state it, in order to show that the registration has some real value.

On presenting my diploma at the office of the Registrar, even the clerks pronounced it as of that class commonly known as "Bogus," for such a document had never been seen or even heard of—this was in August, 1867. The Medical College of Pittsfield, incorporated in 1837 by an Act of the Legislature of Massachusetts, was as much unknown as if the diploma had been granted by Queen Pomare of Tahiti, or the King of Timbuctoo. Still this College has the same privileges and powers of granting diplomas as Harvard University. The pre-requisites for admission to examination for the degree of Doctor of Medicine are—1. Three full years' study of Medicine under a regular Practitioner. 2. Attendance on two full courses of lectures in Medical institutions regularly established, one of which course must be in the Pittsfield College. 3. A defensible thesis on some subject connected with Medicine. 4. An adequate knowledge of the Latin language and good moral character. 5. The examinations to be held in presence of the trustees, Faculty of Medicine, and overseers of the institution. 6. The thesis must be publicly read and defended.

The Registrar, Dr. Francis Hawkins, put himself in correspondence with the Dean of Faculty of Pittsfield College, who, in reply, confirmed the fact of my having graduated in 1839, but he omitted that I had undergone a regular examination. The Medical Council refused my registration until such particulars had been received. It was not until January 20, 1868, that I received the following from the Registrar:—

"Dear Sir,—I have had the pleasure of receiving a very satisfactory report of your examination for the degree of M.D. from the Dean of the Faculty of Berkshire Medical College. The document shall be submitted to the Medical Council at its next meeting."

My admission to be registered did not take place until June, 1868.

This case of itself has no intrinsic interest beyond showing that, without some positive proof of having received a regular Medical education, persons are not admitted by the Council of Medical Education for registration.

In my own case, I had previously attended three full courses of lectures at the then London University, and also attended the Hospital practice of the Middlesex and North London Hospitals for two years. The reason of my not graduating in England prior to returning to America was, that my age was not sufficient, though I petitioned the College of Surgeons to be allowed.

The only method to properly meet the case of foreign diplomas is, that the candidate should go through the ordeal of examination by a board of eminent men appointed by the State. In that case it would be of little consequence if the diploma was from Heidelberg or Kamschatka, for it is the Medical capacity which is demanded for the safety of the public, not the mere addenda of worthless titles. I am, &c.,

199, Brompton-road, January 29. Robert H. Collyer.

The College of Surgeons.—The Library and Museum will be closed on Tuesday next, the General Thanksgiving-day.

Dr. Denman.—We understand that the Midwifery Board will not meet this month, owing to the dearth of candidates.

Argus.—You will find a biographical notice of Dermott in vol. xvi. of the *Medical Times and Gazette*, p. 618 *et seq.* He died September 12, 1847, aged 45.

A Hospital Surgeon.—The election will take place next week. Mr. Henry Spencer Smith, the senior candidate, is Surgeon to St. Mary's Hospital, received his Medical education at St. Bartholomew's Hospital, and was the able secretary to the Royal Commission on Contagious Diseases, etc.

The Young Family.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A correspondent of your journal of February 3, signing himself "X.," has fallen into an error, in stating that "a Mr. Young, late a Surgeon of some eminence, in Sackville-street, was brother to Sir Charles Young, Garter King-at-Arms; and these were, he believes, sons of a Dr. Young, an eminent physicist and Physician to St. George's Hospital." As an old pupil of the late James Forbes Young, M.D. Edin., I am in a position to inform "X." that my friend was brother to Sir Charles Young, as also Mr. Henry Young, an eminent solicitor, of Essex-street, Strand. These three were the only children of an old naval Surgeon, who settled in general practice in Lambeth, and who sent his sons to the Charterhouse School. At his death J. F. Young succeeded to his excellent connexion, and removed to a large house and grounds in Upper Kennington-lane, where he took the lead as one of the first general Practitioners on the Surrey side of the metropolitan Thames. For many years his receipts were upwards of £2000 per annum. He was a man of liberal and enlightened understanding, a most judicious and successful Practitioner, and was frequently called in consultation by his Medical *confrères* in the neighbourhood. For several years he was one of the J.P.s for the county of Surrey. He was never married. I am, &c., E. May, M.R.C.P., M.D.

Pau, Basses Pyrénées, February 15.

Learned Mistakes.

Wise men are known by great mistakes;
In Med'cine this a fact is—
Proving the influence of the
Profession on the *practice*.

In early times the lance was used
For bleeding—then the laneet;
And people killed themselves by drugs
Just when and how they fancied.

Extracts expressed by older heads
Provoked their pill and pillage;
And "Death's Head" was the trade mark of
The Doctor of the village.

So oft they bled, they seemed to earn
The title *leech* awarded—
The animal that sucks the blood—
And all for motives sordid.

Each Doctor talked "phlogiston" then—
Cup-bearer for his squire;
Like him with brazen basin old
Unhorsed by Quixote's ire.

Torments were practised to relieve
Torments less hard to bear,
And men grew rich on others' wants,
And bright on others' care.

Oft, after long and tedious woes
Some patient's patience bore,
Death had the upshot; for his leg
The *issue* had before.

The Barber-Surgeons we became—
One art too small to harbour us—
Whence by transition easy rose
The Surgeons barbarous.

Such the defect of Med'cine once—
No boards to weigh her son
Down by examinations when
Diplomacy was none.

Hippocrates, and Luke, and Chiron,
Ne'er had passed "the College";
Yet we adore Apollo yet,
And grant our greater knowledge.

As once our sires to *Mercury*
Their adoration gave;
They brought their science to the *light*—
Their victims to the *grave*.

But we, to 'scape their errors, leap
Alike on faulty ground:
No doubt 'tis in the clock of time,
The "pendulum's rebound."

Dementia has e'en possessed
Those who essay its cure,
When to the drunkard drinks are given,
And spirits scarce *impure!*

So steel pneumonia now would save—
Of old her worst marauder;
And some give draughts of element
In dropsy's dire disorder!

I knew a man who, waterlogged,
Flooded the soaking floor,
That while he could not run or rise,
His legs *ran* daily more.

Such ones, when loaded to the fill,
Themselves are on the brink,
And 'midst their watertide, at last
Inevitably *sink*.

Those Doctors cure insanity
By ministering *iron*;
And these in hydrophobia
The simple *bark* rely on.

To close the one in rigid bounds—
To teach the proselyte of hounds
To growl and foam aghast,
Bespeaks a leech who "passed his First,"
And went beyond his *last*.

C. A. F.

COMMUNICATIONS have been received from—

Dr. Jordan; Dr. E. May; Mr. C. Orton; Dr. Sawyer; Mr. R. Young; H. R.; Mr. Rioden; Dr. Phillips; Mr. T. Russell; Mr. Bagshaw; Mr. T. W. Salter; Mr. Jayakar; M.D. Lond.; Alpha; Dr. Paget; Dr. Allbutt; Rev. Canon Bardsley; Mr. Hepworth; Professor Flower; Mr. Maunder; Mr. H. Hancock; Mr. T. Bryant; Mr. J. Chatto; Mr. J. W. Procter; Mr. Williams; Mr. Collet; Mr. F. Sanders; Dr. G. C. Franklin; Dr. R. H. Collyer.

BOOKS RECEIVED—

Meadows on Pelvic Hæmatocele—Roth on Hahnemann's Merits, Errors and Critics—De Warker on the Detection of Criminal Abortion—Carlier's Darwinism Refuted—Prince on the Climate of Uckfield—Wünderlich's Medical Thermometry.

PERIODICALS AND NEWSPAPERS RECEIVED—

Leicester Journal—Chemist and Druggist—L'Union Médicale du Canada—Nature—Pharmaceutical Journal—Lincolnshire Chronicle—Liverpool Daily Courier—Kilburn Times—Cincinnati Clinic—Philadelphia Evening Budget—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

February 24. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Wm. B. Donne, "On the Theatre in Shakespeare's Time."

26. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Mr. Victor de Méric will exhibit Casts and Drawings in a Case of Congenitally Deformed Hands and Feet. Mr. Walter Coulson, "On Lithotomy after Lithotrity."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

27. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

Royal Medical and Chirurgical Society. No Meeting.

28. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Hensley, "On the Mechanism of Respiration, Circulation, and Digestion."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

Society of Arts, 8 p.m. Meeting.

29. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

March 1. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m. Goulstonian Lectures—Dr. Hensley, "On the Mechanism of Respiration, Circulation, and Digestion."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

Royal Institution, 9 p.m. Mr. C. W. Siemens, "Measuring Temperatures by Electricity."

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 17, 1872.

BIRTHS.

Births of Boys, 1255; Girls, 1108; Total, 2363.
Average of 10 corresponding weeks, 1862-71, 2212·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	685	635	1320
Average of the ten years 1862-71	751·5	719·2	1473·7
Average corrected to increased population	...	...	1821
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	...	8	...	1	12	...	3	1	2
North ...	751638	27	10	2	1	29	...	8	2	2
Central ...	333887	2	2	2	1	9	...	...	...	...
East	638928	7	6	3	...	20	2	3	...	4
South	966132	12	4	9	3	29	1	6	3	3
Total	3251804	48	30	16	6	99	3	20	6	11

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·567 in.
Mean temperature	43·8°
Highest point of thermometer	54·7°
Lowest point of thermometer	36·6°
Mean dew-point temperature	39·8°
General direction of wind	S.E.
Whole amount of rain in the week	0·11 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 17, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Feb. 17.	Deaths Registered during the week ending Feb. 17.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2363	1320	54·7	36·6	43·8	6·55	0·11	0·28
Portsmouth ...	115455	12·1	66	42	54·6	34·2	43·7	6·50	0·34	0·86
Norwich	81105	10·9	60	59	50·5	32·2	41·0	5·00	0·11	0·28
Bristol	186428	39·6	132	88	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	60	39	51·0	35·4	43·6	6·44	0·83	2·11
Birmingham ...	350164	44·7	293	142	52·1	36·1	43·5	6·39	0·43	1·09
Leicester	99143	31·0	79	37	51·5	32·0	42·8	6·00	0·26	0·66
Nottingham ...	88225	44·2	52	55	56·3	30·7	42·8	6·00	0·21	0·53
Liverpool	499597	97·9	396	212	50·7	37·1	44·0	6·67	0·39	0·99
Manchester ...	+352759	78·6	292	204	52·0	33·0	44·4	6·89	0·37	0·94
Salford	127923	24·7	108	60	51·8	33·4	44·1	6·73	0·46	1·17
Oldham	84004	20·2	69	37	...	...	...	...	...	...
Bradford	151720	23·0	102	83	54·0	36·0	42·9	6·06	0·30	0·76
Leeds	266564	12·4	261	134	54·0	34·0	42·8	6·00	0·26	0·66
Sheffield	247847	10·9	153	134	54·0	34·0	42·4	5·78	0·40	1·02
Hull	124976	35·1	88	63	...	...	...	...	...	...
Sunderland ...	100665	30·4	85	60	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	90	75	...	...	...	...	...	...
Edinburgh	205146	46·3	128	130	53·0	30·0	40·9	4·94	0·30	0·76
Glasgow	489136	94·8	359	294	50·0	35·2	41·9	5·50	0·52	1·32
Dublin	310565	31·9	145	244	52·0	34·0	44·7	7·06	0·66	1·68
Total of 21 Towns in UnitedKingd'm	7394345	34·0	5381	3512	56·3	30·0	43·1	6·17	0·37	0·94

At the Royal Obaervatory, Greenwich, the mean reading of the barometer in the week was 29·57 in. The highest was 29·74 in. at the beginning of the week, and the lowest 29·44 in. on Monday morning.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

† Through an error which was discovered on the revision of the enumerated numbers at the Census Office, the correct population of Manchester at the middle of 1871 was 351,171, and not 356,099, as published in recent Weekly Returns. The number for the middle of 1872 (352,759) shows, therefore, an increase of 1271 upon the corrected number for 1871.

No. 12, Ward's Patent Albert

a Lounging Chair, the most simple and luxurious extant, is fitted for the Drawing Room, Boudoir, Cabin, or Camp; is made in Wood, Iron, or Brass, and folds into a small compass for shipment. From 4½ Guineas.

No. 17, a Four-wheel Victoria Pleasure-ground Chair, mounted in a very light Iron-framed Carriage upon C and patent India-rubber Springs, is either drawn by Hand or Animal, and is the most elegant and easiest Chair made.

No. 16, a ditto, upon three wheels, mounted same as four wheels, on C and India-rubber Springs.

No. 9, a Bath Chair, with Leather Head, and Folding German Shutter.

No. 18, a Sofa Briteka Spinal Carriage with the inside Tray made to take out and in, on which an invalid may be taken from her room to the carriage.

No. 24, Ward's Improved Child's Perambulator, with Patent Parasol. A variety always on hand.

No. 14 is the simplest and best-constructed Chair for carrying invalids up and down stairs, the lower handles for level ground, the upper ones for ascending or descending a staircase: the sketch conveys the exact idea; it is also made portable for travelling. Several other kinds are always in stock, upon various principles.

BY HER MAJESTY'S ROYAL LETTERS PATENT
AND BY SPECIAL APPOINTMENT TO HER MAJESTY
AND THE ROYAL FAMILY
THE EMPRESSES OF RUSSIA & FRANCE
&c. &c.

JOHN WARD

5 & 6, LEICESTER-SQUARE, LONDON.

Nos. 10, 10, Sketch of Earl's

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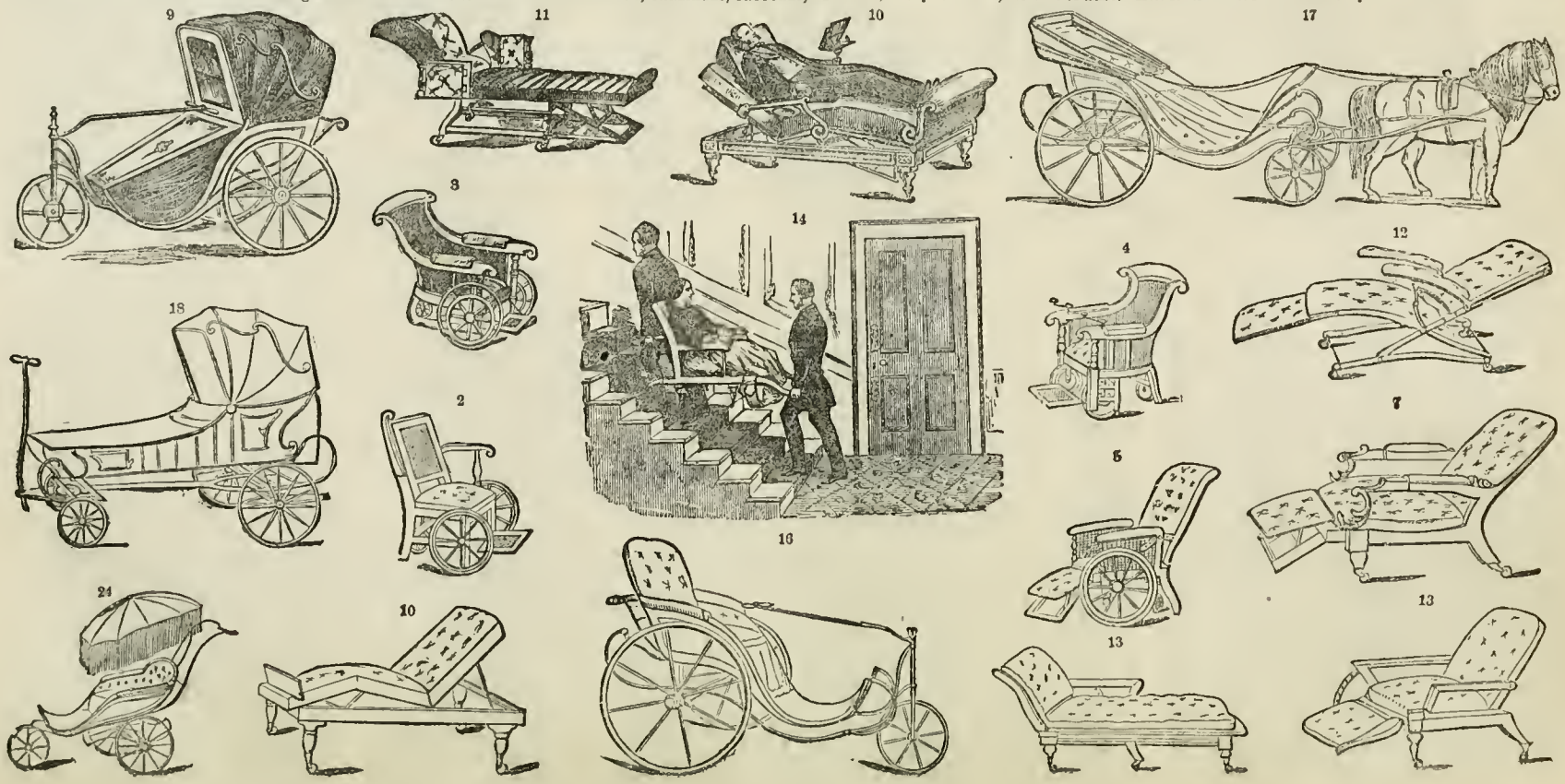

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 184.)

PART V.

Gangrenous Abscess of the Lung: Causes: Peculiar Odour: Convulsive Cough: Deep Seat of the Abscess—Treatment—Recoveries—Deaths and Causes.

THIS affection was not noticed by Laennec, who describes only a few instances of gangrene of the lung, a much more rare and always fatal lesion. Gangrenous or fetid abscess of the lung is not so uncommon as is generally supposed. During the period of seven years I find notes of twelve cases; and I have been consulted in others, the issue of which is uncertain. Neither is the lesion so fatal as might have been anticipated from its nature and gravity—for of these twelve only three have died, and nine have more or less completely recovered. I believe that all but one are still living (1862).

The tendency of inflammation of the lung to terminate in abscess or gangrene does not seem to depend on the severity of the inflammation, but rather on the obstruction accidentally produced in the circulation and nutrition of a part of the lung. In several of the cases there has been a prolonged chill, when the body has been previously in an unhealthy state, or much exhausted. A young gentleman, in the summer of 1856, was bathing in the Thames, and, missing his boat, was obliged to swim a very long way. He was much exhausted, and severely chilled, and was afterwards attacked with inflammation of the right lung. In a few days he began to cough up fetid matter, and continued to do so from time to time for several weeks, sometimes with small sloughy shreds, in which filaments of lung tissue were detected by the microscope; yet this patient entirely recovered in a few months. (He is living and well in 1872.)

In October, 1857, I saw a young clergyman who, also after a severe chill in bathing, was attacked with pain in the right scapula, and in a few days began to cough up large quantities of very offensive matter, mixed with blood. There were signs of a cavity in the right scapular region. He was much reduced in flesh and strength; but, after going to the seaside, and taking tonics and cod-liver oil, he very much improved, still occasionally bringing up blood. A year after I heard that he had quite recovered, with the exception of occasional pain in the right shoulder, and slight recurrences of hæmoptysis.

Another patient had been suffering for some months previously with carbuncular boils. After long exposure to wet and cold, he had severe pain in the right side, and began to cough up fetid matter.

There are two points connected with gangrenous abscess of the lung to which I would call your attention. One is the peculiar fetor of the expectorated matter when first voided; this, as well as the breath in the act of coughing, is extremely offensive—in fact, the smell is that of putrid flesh, and quite different from the rotten-egg odour of fetid pus, which is obviously that of hydro-sulphuric acid. But after the matter of fetid abscess has remained some hours in the spittoon, the odour changes to one of a sweetish and rather fragrant character, very like that of cowslips; and this is so characteristic that I have, on several occasions, diagnosticated fetid abscess on scenting this fragrant odour. It is well known that some of the sweetest perfumes are now manufactured by slight chemical changes in some very disgusting matters; and this seems to be an instance in which a similar change takes place spontaneously.

The other point which I would notice is the violently convulsive character of the cough, which is more like hooping-cough than any other. When we see a patient straining every muscle and shaking in every limb in the coughing fit, often until it ends in retching and vomiting, whilst the air is filled with the horrible stench, we cannot avoid the conclusion that these are efforts of the system to rid itself of the offensive matter. The same thing happens in hooping-cough. The matter to be expelled is not putrid, certainly, in this case; but it is a highly irritating mucus, secreted by the tracheal glands under the influence of an animal poison; and the violent cough ceases as soon as it is expelled, until more is formed again, and excites a fresh paroxysm. An analogous process is witnessed in dysentery and cholera, in which violent muscular efforts are excited to rid the alimentary canal from offensive and irritating matters by vomiting and diarrhœa; and in catarrhal cystitis, in which the straining dysury is equally urgent.

The common seat of these fetid abscesses is at the base of the right lung, and in some instances they are sufficiently near the surface to give audible signs of partial consolidation and excavation: in others the abscess is so deep-seated and central in its position, and so surrounded by healthy lung-tissue, as to give no acoustic indications of its presence. The depth of the abscess, at the very bottom of the lung, is one of the circumstances which increase the difficulty of expelling all its contents; and it sometimes happens that after a patient has apparently recovered, there are repeated recurrences of hæmoptysis, followed by fetid expectoration, from a residue of offensive matter being left, and gradually leading to the formation of more.

The most important remedies in the treatment of fetid abscess of the lung are antiseptics, tonics, and nutrients, which tend to correct the putrescence of the matter formed in the diseased part, to promote its healing, and to keep up the strength of the system. I have found the diluted nitro-muriatic acid the most efficacious and agreeable antiseptic. It should be given in doses of from thirty to sixty minims several times a day; and these, and even larger doses, are well borne if combined with a drachm or two of pure glycerine, which has the effect of sheathing the acid, and is in itself both antiseptic and nutrient. Inhalations of carbolic acid, or creosote and chloroform, are also very useful, not only for their antiseptic influence, but also through the power of the latter to mitigate the violence of the cough (a). It is useful also to fumigate the patient's room with chloroform or carbolic acid in such diluted strength as shall not irritate the air-passages, and yet sufficient to remove the fetor of the air, which is sometimes very sickening. A linctus containing creosote, chloric ether, and a little morphia is also of service in mitigating the cough. When the fits of coughing are so frequent as much to disturb the rest, it is necessary to give opiates in larger doses; but it is desirable as much as possible to confine their operation to the night, so that it may not interfere with the appetite and digestion. To improve these, and to aid in maintaining the strength, bitters and stronger tonics are generally required; and they may be very well combined with the acid and glycerine mixture before recommended. And, as in all cases in which the blood is liable to be contaminated with offensive matter, it is important to take care that the natural emunctories of its impurities—the intestinal and urinary excretions—are free and active.

In the matter of nourishment and sustenance, these are cases generally requiring as much high feeding and stimulants as the stomach will bear without disturbance; and it is often necessary to coax the palate and humour the taste with all the varieties and resources of culinary art in order to maintain a sufficient appetite for the purpose. One maxim is of great moment in these and all cases where feeding is required, and not mere stimulation—that the stimulants should be given with the food (solid or liquid), and not at intermediate times; as *adjuncts* to a meal, not *substitutes* for it.

In illustrating this subject by a few examples, I will cite first the cases of success. About sixteen years ago I went to see a patient of Mr. Bellis, of Maidenhead, aged upwards of 60, who, after a severe chill, began to expectorate large quantities of offensive matter of the character before described, and was becoming much exhausted by it and by the violent fits of cough. The signs of cavity were obvious in the lower lobe of the right lung. He was carefully watched and treated on the plan recommended, and entirely recovered in a few months, and has been a hale old man ever since. Singularly enough, this same gentleman's son-in-law was attacked in the same way, and I

(a) I take this opportunity of recommending chloroform as one of the best remedies for hooping-cough. From ten to thirty drops on a handkerchief held to the mouth and nose of a child at the commencement of the paroxysm, and repeated if necessary, will not only shorten the fits, but will diminish their frequency, and in several instances I have found the duration of the disease abridged in a remarkable manner. I believe that the chloroform, besides its composing influence, has a chemical operation on the tracheal membrane which secretes the specific poison of hooping-cough, and prevents its formation. A similar operation may be ascribed to nitrous acid fumes, to alum, and to nitric acid largely administered; and to cauterisation of the mucous membrane of the trachea by solution of nitrate of silver—all of which remedies have the reputation of shortening the duration of the disease.

went into Yorkshire to see him. He was an enormously stout man of 45, and it was awful to see his huge frame convulsed with the tremendous cough. The stench in the room gave me a sickening that I did not recover for some days. Yet this patient also made a quick recovery on the same plan.

The case of a lady near Staines (aged about 30), whom I saw on October 15, 1856, was still more formidable. Fetid matter was brought up for several months, to the extent of from half a pint to a pint and a half in the day, and there were abundant signs of a large squashy cavity in the lower lobe of the right lung. This was a stout woman too; and, fortunately, her stomach was stout also, and bore a prodigious quantity of food and stimulants, with a corresponding proportion of cod-liver oil and tonics. She entirely recovered; and I have heard of her continuing well within the last year or two.

A gentleman, aged 25, at the end of March, 1850, after depression from a bilious disease, was subjected to extreme exertion and chill in helping at a fire, and was attacked with inflammation of the right lung, followed in fourteen days by profuse expectoration of very offensive matter, with gurgling and other signs of large cavity at the base of the lung. On April 21 there came on sudden severe pain in the lower front of the right chest, with extreme oppression, and signs of collapse, requiring the free use of opium and stimulants. After twenty-four hours more horribly offensive matter was expectorated, and the enlargement of the cavity was made obvious by the sound of metallic tinkling. Yet, by aid of antiseptics, with nitric acid and bark in the day, morphia at night, and liberal nourishment, this patient improved so much that in June there were no more signs of cavity, only partial dulness and obstruction; and he afterwards made a complete recovery.

Another gentleman, aged 30 (November, 1850), after suffering six weeks from dyspnœa, frequent pulse, scanty secretions, and moderate cough, with dulness and defective breath at the base of both lungs, suddenly began to cough violently, and in two or three days brought up a pint and a half of extremely offensive pus. No signs of cavity could be detected. In a few days, under mineral acids and cod-liver oil, the expectoration diminished and lost its fetor; and by the end of February the patient was quite well.

In two or three cases fetid abscesses of the lung have seemed to have their origin in the liver, being preceded by marked tenderness and fulness of that organ.

A gentleman, aged 26 (October, 1850), after suffering for three weeks from nausea, fever, fulness and tenderness of the right side, was attacked with severe pain in the same part, soon relieved by leeches; but in a week's time, after several rigors and accessions of fever, he began to cough up quantities of greenish and drab-coloured matter, extremely fetid, and sometimes very bitter in taste. There were signs of consolidation and partial cavity at the front of the lower lobe of the right lung. These symptoms were attended with extreme emaciation and weakness; but, with the exception of some cough and expectoration (not fetid), they gradually subsided; the patient was recovering flesh and strength, when, in a few weeks, there was a return of the fetid expectoration, violent cough, and feverish disturbance, which, after a week or two, again gave place to a state of amendment. These attacks continued to recur at irregular intervals for eight years, gradually becoming less frequent and less severe, and ultimately ceased altogether. In this case there were signs of considerable disease of the lower lobe of the right lung, and it appeared that it was so placed that the whole of the offensive matter could not be completely evacuated; so that, although the lung healed above, the matter which remained gradually increased until it was sufficient to cause the local and general disturbance of a fresh attack of hæmoptysis, fetid expectoration, and constitutional disturbance. An attempt was made at one time to give vent to this matter by an incision through the integuments and intercostal space over the cavity, but without success. Eventually, the constitutional powers, invigorated by pure air, favourable climate, nourishing food, and the occasional use of tonics, gradually diminished the evil, and after some years succeeded in overcoming it.

Of the four fatal cases of fetid abscess of the lung, three are recorded within the period before mentioned; the fourth occurred more recently. But I will notice each, in order to point out the several circumstances which seemed to prevent the success of the treatment.

On November 16, 1850, Mr. Bateman, of Islington, requested me to see a gentleman, aged 56, who had been six weeks suffering from low inflammation of the right lung with expectoration, which sometimes had an extremely offensive character, and that which was now preserved had the characteristic cowslip odour before mentioned. Four days before there had been severe pain of the right side. The signs were dulness and deficient motion in the lower two-thirds of the right side of the chest, obscure coarse crepitation below right scapula, loud bleating bronchophony above. Under the free use of nitro-muriatic acid, with creosote inhalations, the fetor of the expectoration diminished, and the pulse lowered from 110 to 85 on the 22nd, but there was increased pain and extreme tenderness of the right side, the integuments of which were swollen, and pitted on pressure. There were now also signs of air in the right pleura, proving that the pulmonary abscess had perforated that membrane. As may be supposed, therefore, the amendment was only transient, and the patient died on December 5. He was not temperate in habits, and the amount of lesion in the lung was obviously too extensive to admit of cure.

A lady, aged 50 (seen first with the late Mr. Nussey, and afterwards with Dr. Jenks, at Brighton), at the beginning of 1849 was attacked with cough and feverish symptoms, followed by severe pain in the right back. Leeches and blisters gave some relief, but the cough continued, and brought up sputa (first bloody, then purulent and viscid) in great quantities—sometimes fetid, more frequently inodorous. Unfortunately, this patient had a most fastidious stomach, and could bear neither strong acids, tonics, cod-liver oil, nor even much nutriment; and she was gradually worn down by the exhausting cough and expectoration, and died in the following summer. There had been signs of consolidation and partial excavation of the lower and middle lobes of the right lung, and after death these were found carnefied, with a narrow passage with sloughy walls reaching down to the diaphragm, and there spreading to four or five inches in diameter, and limited by the strongly adherent pleuræ. There were no tubercles in either lung.

A little boy, aged 4, was brought to me on July 19, 1856. In the preceding August he had a feverish attack, with cough, and in September began to spit up very offensive matter. Relief and improvement followed; but at the end of October the violent cough, with fetid breath and expectoration, again returned; and these attacks had returned at intervals of from six to eight weeks ever since, causing extreme weakness at the time; and although there was improvement in the intervals, the poor child was obviously wasting away under the disease. The lower two-thirds of the right lung were dull and obstructed, a tympanitic-stroke sound in the lower front, and amphoric breathing at the scapula; crepitus above; some crepitus also at left apex. Temporary amendment took place under a tonic treatment, with cod-liver oil, etc.; but in the October following diarrhœa and sickness interrupted this, and the disease lapsed into fatal phthisis.

To these three fatal cases I will add a fourth, which will serve to exemplify another cause of failure. A gentleman, aged 52 (seen in consultation with Dr. Sharpe, of Norwood), had suffered during the summer of 1861 from a succession of boils. In the autumn, during a tour in Scotland, he was attacked with severe pain in both sides of the chest, and began to cough and expectorate very offensive matter. This, and the violence of the cough, coming on in paroxysms only when the matter had accumulated, were quite characteristic; yet I could never discover signs of cavity, nor even of marked consolidation in any part. I suppose it was deep-seated in the centre of the lung. I expected this patient to get well, as most of the others had done; but no treatment succeeded in permanently diminishing the quantity and fetor of the expectoration. At last it was discovered that the urine was saccharine, and this I believe to have been the cause of the intractability of the case. Sugar in the blood often causes boils and carbuncles to form, and it may well be supposed capable of preventing the healing of a gangrenous abscess. This patient was ultimately under the care of Dr. Blakiston, at St. Leonard's; and I went there to see him in consequence of a sudden aggravation of his symptoms. He was attacked with vomiting and severe pain and oppression at the sternum and epigastrium, with sudden failure of strength and great acceleration of the pulse. There was so much fulness and dulness on percussion, as well as extreme tenderness of the epigastrium and right hypochondrium, that I came to the conclusion that an abscess was forming in the liver, probably caused by extension of the lesion from the lung. The patient died two days after, and a post-mortem examination was not permitted.

It is a remarkable fact that in all the cases of fetid abscess of the lung that I have now noticed, the seat of disease has been the right lung, and I do not recollect in other instances which have occurred in my practice (not fewer than

twenty more) that I ever met with a case of abscess of the left lung.(b)

If, as is probable, gangrenous abscess has its origin in obstructed circulation in the great pulmonary plexus, this may reasonably be expected to occur most frequently in the part in which the largest quantity of blood is apt to stagnate—the central portions of the large lower lobe—where the respiratory movements are most impaired.

(To be continued.)

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture III.

(Continued from page 152.)

The Administration of Stimulants.

Alcohol.—The mode of action of alcohol upon the organism during the febrile state is very complex, and before discussing the nature of the modifications in the pathological changes probably effected by it, it is necessary to refer to the great distinction between the two objects for which wine and other stimulants are given during illness. Alcohol is prescribed—1. For the purpose of promoting digestion, improving the appetite, and relieving unpleasant sensations about the stomach; and 2. With the view of directly influencing those most active and serious abnormal changes which are taking place in the blood and in the tissues in all bad forms of fever, which, if they progress beyond a certain degree, will certainly lead to a fatal result.

I propose to defer the consideration of this latter part of the subject until the action of alcohol in moderate doses in the healthy state and in cases of slight fever has been discussed. The forms in which this substance is taken are very numerous, and nothing is more remarkable than the capriciousness exhibited by different stomachs as regards the reception of alcohol. Some persons like, and can take without suffering, any form of alcohol. With others beer and malt liquors agree well—better than wine or spirits. A certain number can even take porter, but not ale, or *vice versâ*. With some dry sherry is the only wine that will agree. Port wine suits others; while not a few prefer, or can only take without suffering from derangement of the digestive organs, certain hocks or clarets, or perry or cider. Brandy or whisky diluted will often agree when every other kind of alcoholic drink fails; but even pure rectified spirit properly diluted will not always be absorbed by the stomach without exciting discomfort and favouring the development of unpleasant gases, with certain organic acids, among which butyric, acetic, and valerianic are found.

No one has yet been able to give any satisfactory explanation of the fact that a little wine will occasion in some stomachs the greatest disturbance. Within a few minutes, not only is the process of digestion stopped, but there is pain, an unpleasant feeling of nausea, not unfrequently accompanied by an actual desire to vomit. In other persons a glass of wine will occasion no inconvenience at the time, but may lead, in the course of from twelve to twenty-four hours, to the development of that unpleasant collection of symptoms which constitutes what is often termed a "bilious attack." Vomiting, purgation, and free diuresis afford relief; but sometimes the disturbance lasts for days, and is not allayed until the stomach has had twenty-four hours' complete rest from work, or until free action of the alimentary canal and all the glands that pour their secretions into it has been promoted by a dose of mercury. It is, after all, not improbable that this most unpleasant action of alcohol indicates a highly sensitive but not unhealthy action of the nerves of the stomach, and that tolerance of wine and spirits is due to a change which has been induced in the finest nerve fibres—in consequence of which their sensitiveness has been impaired. The tolerance of opium, tobacco, and some other poisons is probably to be explained in the same manner. Nor is tissue change limited to the nerves of the stomach; for it is an unquestionable fact that many of those persons who habitually subject their tissues to the influence of alcohol and tobacco, or both, at an early age, exhibit very distinctly signs of change in many tissues of the body. They look older; and, indeed, physiologically speaking, their tissues are considerably older, and have deteriorated in a much greater degree, than would have been the case if they had not been exposed to the action of alcohol.

It is very remarkable how great a difference, as regards the capacity for the assimilation of alcohol, is observed in the same person when in ordinary good health, and when suffering from even a slight cold. I have observed this many times myself. When in health a very small quantity of wine will disagree, and not unfrequently give rise to serious disturbance of digestion; but when one feels depressed and miserable from a feverish cold, three or four glasses of wine may be taken within a very short time with benefit, and with a feeling of immediate relief. Persons accustomed to alcohol in one form may take with advantage some other alcoholic fluid during illness.

If at the outset we have any reason to apprehend that an attack of fever is going to be severe, it is very desirable to administer small quantities of alcohol early in the disease. In this way the stomach may be accustomed to the remedy; whereas, if its use is postponed until the patient is very ill, and alcohol required in very large doses, the stomach is often in so highly irritable a state as to reject it. The patient's life may be in jeopardy from this circumstance, or fatal exhaustion alone may actually destroy him.

Of giving Alcohol to Young Persons.

My conclusions as regards giving alcohol to the young are in the main not at variance with the opinions of those who advocate extreme temperance. My own experience leads me to believe that the majority of young healthy people would do well without alcohol; and I believe the habitual daily consumption by young persons—even of a moderate quantity—of wine or beer, is quite unnecessary, and mere waste, while in some instances it is positively injurious to health. At the same time, there can be no doubt that in certain cases where the health fails in children, and even in infants, great benefit results from giving small quantities of wine daily for a short time. Hard-working people, students, professional men, and people actively engaged have been advised to take stimulants, as a general rule—and some, no doubt, require them; but I believe many would enjoy very good health without any alcohol at all, while the recommendation that they should take plenty of claret or other light wine is bad advice for several reasons. Not only is a bottle of light wine not required, but in many cases it is actually injurious. That people who can get it will often take a bottle of light wine, and more, is quite certain; but that they require it, or that it is good for their health, will not bear discussion.

Up to the age of 40 very little stimulant is, as a general rule, really desirable for healthy persons, and I expect most people of average health would get on better without any. My own personal experience is this:—I was never very strong, though always able to get through a very considerable amount of physical exertion without suffering from fatigue. Up to the age of 40 I hardly ever touched stimulants of any kind, and when I did take a little I not unfrequently experienced an attack of sick headache before my ordinary condition of health was restored. Lately, however, I have found the advantage of half a tumbler of ale daily; and I can bear half an ounce, and sometimes three or four ounces, of wine without suffering. I dare say, as I grow older, I may, like most persons, require a little more; but when in the country, and taking plenty of exercise, I feel very well and contented without any stimulants whatever. The experience of some members of my family who have lived to be old, and that of many persons of whom I have inquired, accords with my own. In old age, I believe, stimulants are really necessary, and sometimes are even more important than food itself. I feel sure the life of many old people is prolonged by the judicious use of alcohol, and I think that some, who have been very careful all through life, take far too little stimulant when they grow old.

Of the Probable Action of Alcohol in the Body.

But we may now very briefly consider the influence of alcohol upon the organism, and its probable operation as an article of diet. What becomes of alcohol when it is taken into the stomach? There is no doubt that if the spirit is strong when introduced, it is much diluted by the pouring out of fluid from the vessels and glands of the stomach, and that it is quickly absorbed, in its diluted state, into the blood. That this

(b) The following case may be an exception; but having been seen only once, and so many years after, must be considered doubtful:—Miss S., aged 56 (September 8, 1854), twenty-five years ago had fetid abscess of the lung, and for six or seven years continued to cough up offensive matter. No fetor since, but short breath, wheezing, and occasional cough have persisted; lately with intermittent pulse and increasing weakness. Physical signs: Dulness and partial obstruction, with crepitus in lower two-thirds of left lung; sonorous rhonchus above on both sides.

is so is proved by the familiar fact that the smell of alcohol is often very perceptible in the breath. Moreover, as is well known, alcohol has been detected by chemical tests in the breath, in the sweat, in the urine, and in the other secretions by a number of observers. Alcohol has also been proved to exist in the blood. There is, therefore, no doubt that alcohol, as alcohol, may not only be taken up by the blood, but may circulate with the nutrient fluid, and eventually pass away from it unchanged. But it must not therefore be concluded that *all the alcohol every person takes* is thus absorbed as alcohol, caused to circulate through the body as alcohol, and at last excreted unchanged; for such a conclusion would be opposed to the facts of observation and experiment. The truth seems to be, that some of the alcohol taken is unchanged in the system, but that a considerable and very varying proportion of the total quantity introduced is caused to disappear altogether as alcohol, and to pass through most important changes, escaping at last from the organism probably as carbonic acid and water.

A certain quantity of alcohol is *digested* and *assimilated;* and it is quite certain that the capacity for the digestion of alcohol varies very remarkably in different individuals. It is most probable that the alcohol is taken up by, and carried with, the portal blood to the liver. It is then appropriated with other substances by the bioplasm of the hepatic cells, and completely changed. Its elements are rearranged, and added to the constituents which form the liver-cell, and which gradually break up to form the ingredients of bile, the liver-sugar, and the so-called amyloid matter.

It is the living matter of the yeast-cell that splits up to form alcohol and carbonic acid, water, and a form of cellulose. We shall not be surprised to find that another form of living matter —that of the liver-cell—has the power of appropriating alcohol, rearranging its elements, and causing them to combine with other elements to form compounds having properties very different from those of the materials out of which they were made. And it seems probable that under certain circumstances other forms of bioplasm of the body are able to take up and appropriate alcohol; for it is certain that in some prolonged cases of exhausting disease a large amount of alcohol is readily assimilated, while ordinary foods can only be taken in such infinitesimal amount that we cannot attribute to them much influence in the maintenance of life. In severe cases of fever, as I shall again have occasion to state, the greater proportion of the alcohol introduced is probably not oxidised, as used to be supposed, but appropriated. Its effect is to lower, not to elevate, the temperature; and, so far from increasing the dyspnœa in bad cases of bronchitis, pneumonia, etc., by throwing increased work upon the lungs, as used to be affirmed, it has a directly contrary effect.

Dr. Parkes has shown that diluted alcohol, given daily in such proportions that not more than two ounces of absolute alcohol are consumed in the twenty-four hours, in most cases improves the appetite, and slightly quickens the heart's action; but that larger amounts have an opposite effect as regards the appetite, and greatly increase the cardiac beats.

Anstie and Dupré showed that if doses of alcohol sufficiently large to produce narcotic effects are taken, alcohol escapes in the excretions, but when smaller quantities are taken it is not to be detected. This may be the true explanation of the fact that alcohol in certain cases cannot be detected in any of the secretions at all. It is certain that the quantity required to produce narcosis varies greatly in different individuals, and perhaps this may account for the different results obtained in the course of different experiments.

Dr. Dupré has quite recently proved that, of the alcohol taken in moderate doses (48 to 68 grammes of absolute alcohol), only a minute fraction is excreted as alcohol, while by far the larger proportion is disposed of in the system in some other manner.(a) Dupré's observations show that this alcohol is not stored up in the system as alcohol, and slowly evolved in the form of alcohol. He remarks that the amount of alcohol eliminated per day does not increase with the continuance of the alcohol diet, and that, therefore, all the alcohol taken daily must be disposed of daily, and converted into some other substance in the system.(b)

We must therefore conclude that, of the alcohol taken, only a small but very variable amount is excreted as alcohol, but that the larger proportion, at least in the case of most organisms, is changed in the system; not simply acted upon by other things in a state of change, as may be effected out of the body, but actually taken up by the living matter or bioplasm, appropriated and converted into other substances. Though probably not applied to the nutrition of tissues, its elements may perhaps assist to form some of the constituents of bile, sugar, fatty, and amyloid matter.

(a) *Proceedings of the Royal Society*, January 25, 1872.

(b) Dr. Dupré has discovered in the urine and in the breath a substance, which, though not alcohol, gives the ordinary reactions relied upon for detecting that substance. It yields acetic acid by oxidation, and gives the emerald-green reaction with bichromate of potassium and strong sulphuric acid. It yields iodoform. This body was found after six weeks' total abstinence from alcohol, and was detected in the case of a teetotaler.

ORIGINAL COMMUNICATIONS.

THE CURVES OF THE DEVELOPED GENITAL PASSAGE.(a)

By J. MATTHEWS DUNCAN, M.D.

The observer of the current literature of midwifery finds nothing more characteristic of it than the number of papers on the mechanism of natural parturition. These papers indicated, for the most part, an enlightened zeal, for they are engaged with a most important branch of this mechanism—namely, the mode of action of the force of labour upon the fœtus and upon the passage, and the explanation thereby obtained of the changes which take place in these as natural labour advances.

For these inquiries great additional value would accrue were the amount of power exerted by the combined forces of parturition well known; but they can be carried on to a great degree of advancement even while the amount of power exerted by the machine is unknown or at least unsettled.

Some of these inquiries as to the action of the force of labour upon the fœtus and passage are very easily solved, and have been long in this condition. But the most, and by far the most important, are questions only recently raised, and of which it may be said that few are familiar to the Profession even as questions, and still fewer can be regarded as settled. These inquiries form the natural sequel to the most recent developments of our knowledge of natural parturition. These have been chiefly engaged in describing *how* the fœtus and the passage actually behave during the process, while the new inquiries are destined to explain *why* they so behave. These new inquiries will introduce us far more deeply into the subject of the mechanism of labour than those which have preceded them. They are specially difficult because of the varying conditions of the force of labour and of the correlated parts—the fœtus and the passage. The former has the relations of its parts extensively changed while the process of labour proceeds, and the latter is only produced at the time by what is called the development of parts as the fœtus advances.

The subject to which I wish at present to direct attention is the curves of the genital passage and their influence on the phenomena of parturition.

I.

The first curve to which I direct attention is said to be at the brim of the pelvis, and to have its convexity directed downwards and forwards. I do not admit that this curve exists; but it is of the utmost importance to decide the point, because, without doing so, we cannot possibly determine the primary direction of the driving force of labour. Hitherto and now the axis of the uterus has been and is generally regarded as coincident with the axis of the brim of the pelvis, and to indicate the direction of the resultant of the forces of parturition. But an elaborate attempt has been recently made by Schatz and Schultze—especially by the former of these authors—to demonstrate that the axis of the uterus at rest and in action is inclined to the axis of the brim of the pelvis at a small angle opening forwards and upwards and of about ten degrees. I have just said that the axis of the uterus has been generally considered to indicate the primary direction of the driving power; but it is evident that this can only be the case if a variety of conditions be satisfied. Of these the following are probably principal:—The assistant driving force, which is auxiliary to the proper uterine force, must be also directed in the axis of the brim of the pelvis, being supposed to be uniformly applied to the uterus by the circumjacent viscera and parts acting like a fluid, exerting pressure equally in all directions; the uterus must be distended with a fluid which is copious enough to prevent any part of the walls being specially pressed upon or indented by the fœtus, or it must have its

(a) Read to the Royal Society of Edinburgh on February 19, 1872.

tendency to become spheroidal superiorly unrestrained. Now, Schatz, in addition to giving the proper uterine driving force an inclination to the axis of the brim by ascribing to the uterine axis such an inclination, still further increases the inclination of the whole driving force by describing the special direction of the auxiliary bearing-down driving force as still more inclined than the direction of the uterine axis. The resultant of the combined or whole driving forces will, of course, according to Schatz, have a direction somewhere intermediate between that of the uterine and that of the auxiliary driving forces.

Smellie's authority is much relied upon in support of the existence of this curve. In his plates he gives the uterus this inclination to the axis of the brim of the pelvis, both in natural cases and in cases of deformity; but this is not satisfactory evidence as to what he believed, for it is probable that in preparing his plates he did not pay particular attention to the point. Those of them to which reference is here made (as xii. and xiv.) are not, in the proper sense, drawings or pictures, but mere plans, and might very well have been arranged as they are, merely because in other respects the works looked well. Dr. Barnes, in his recent work on obstetric operations, while adhering to the generally entertained view as to the coincidence of the axis of the uterus and of the brim of the pelvis, implies, by his descriptions and drawings, a belief that in most, if not all, cases of antero-posterior contraction of the brim of the pelvis, the uterine axis is inclined to the axis of the contracted brim, as Schatz believes it to be in cases generally. This is not the place for any full criticism of what Barnes very aptly calls the curve of the false promontory, because I confine myself to ordinary or natural conditions. I shall merely say that this important and practically valuable doctrine of Barnes regarding the curve of the false promontory is made too general. It can be true and applicable only where the posterior uterine obliquity is present, and it is not demonstrated, nor is it probable, that this always is so in cases of deformity.

It is extremely desirable that means should be devised for ascertaining the direction of the resultant of the combined forces of parturition, and especially of the axis of the uterus in action. The means adopted by Schatz, with this object in view, are not satisfactory; they merely go the length of showing how carefully he entered upon the question. But it may be permitted me to state reasons which tend to establish the ordinary opinion, and to discountenance that of Schatz.

If the uterine axis is inclined to the brim of the pelvis posteriorly to its axis, we should expect to find the child's head at the commencement of labour, while yet above the brim, to be in a position which has never, so far as I know, been ascribed to it in natural cases. Smellie, in his Plate xii., gives this position consistently, but not truly. He could not avoid doing so unless he represented the child at rest as having a left lateral flexion of the head; which would be ridiculous. His mode of drawing the uterus with this posterior obliquity created an exigency for him, which he could get over only by what must be regarded as misplacement of the head. One error thus led him into another. The erroneous posterior uterine obliquity forced him to represent the left side as presenting in the very commencement of labour, in an ordinary case of first cranial position, with the occiput looking to the left. I do not see how the difficulty—Smellie's yielding to which gave rise to error—can be avoided, except by assuming that the ordinary view as to the axis of the pregnant uterus is correct.

At the same point where Smellie stumbled, Naegele also fell into error, but in an opposite direction. In his classical essay on the mechanism of birth, describing the first position of the fœtal head, he represents it as presenting at the brim of the pelvis, which it has not yet fully entered, more obliquely than when it has entered it, or as having at the earliest stage its perpendicular axis more inclined anteriorly to the axis of the brim; and in this way he accounts for his allegation that the right ear can generally be felt at this time without difficulty behind the pubic bone.(b) Here a remark may be made similar to that applied to Smellie's drawing: namely, that the head could not be so placed unless the uterus had an anterior obliquity—an obliquity opposite in direction to that figured by Smellie, and described by Schatz; an obliquity quite incompatible with Naegele's own descriptions in his work on the female pelvis,(c)—or unless the child maintained an unnatural and undescribed left lateral flexion of its head.

(b) See the work of H. F. Naegele, "Die Lehre vom Mechanismus der Geburt," S. 12. Mainz, 1838.

(c) F. C. Naegele, "Das weibliche Becken." Carlsruhe, 1825.

The now generally entertained views, that the axis of the uterus coincides with the axis of the brim of the pelvis, and that the fœtal head presents at the brim directly,(d) have at least the merit of evading such obvious and adverse criticism as the figure of Smellie and the expressed opinions of Schultze, Schatz, and of Naegele are liable to be subjected to.

The great authority of Naegele was long sufficient to give currency to his statement that the head of the fœtus, as it passed through the brim of the pelvis, had its vertical axis in a position of anterior obliquity to the plane of the brim—an obliquity which is appropriately designated the Naegele obliquity, in order to distinguish it from other obliquities at the same situation. The great argument against this view, and the only one having a final character, is that it is not an accurate description of what takes place; but, in addition, it has been argued against it that it is impossible to find a mechanism to account for it. Stoltz's attempt to explain its occurrence by mere lateral flexibility of the neck of the child is insufficient, because it affords no explanation why the lateral flexion is towards the posterior shoulder; but the now alleged posterior obliquity of the uterus, as regards the axis of the brim, affords a solution which Naegele did not foresee when he described this obliquity as present and increasing with the increasing height of the head in or above the true pelvis. If, adopting the kind of nomenclature introduced by Barnes, we describe a curve of the natural promontory produced at the brim of the pelvis by the posterior obliquity of the uterus, then this curve, representing a deflection of the axis to the extent of about ten degrees, can be easily made to account theoretically for the alleged Naegele obliquity during the first half of the passage of the child's head through the ligamentous pelvis. Forif we suppose, with Schatz, that the whole power of labour acts in an oblique line nearly corresponding to that of the axis of the uterus, or inclined still more posteriorly, then there will always be a tendency of the anterior half of the head, or of that which is nearer the concavity of the curvature of the passage, to descend first, and so produce the Naegele obliquity, if there be uniform resistance to the advance of all parts of the head. But, as the occurrence of Naegele's obliquity is now very generally denied, any mechanism which accounts for it derives little or no support of its own accuracy from the circumstance of its doing so.

Still another difficulty in the way of admitting the presence of this curve of the natural promontory as the natural or ordinary condition is worthy of consideration. It is justly held that in natural labour the advance of the head through the brim of the pelvis is impeded only by friction and imperfect dilatation, or dilatability of the soft parts; but, if this curve of the natural promontory exists, a new and considerable difficulty is introduced—namely, the difference between driving a body through a curved and a straight passage—a new difficulty which it appears to me unreasonable to admit. And this is not all; for this addition of difficulty is not overcome and passed when the child's head has traversed the curve, but lasts during most of the process of the birth of the child. If this curve exists, the axis of the genital passage, regarded in the antero-posterior vertical plane, has the shape of a Roman S; its first or upper curve, the curve of the natural promontory, having its concavity looking backwards; its second, and universally recognised curve, having its concavity looking forwards. I believe we are nearer the truth when adopting the view at present generally entertained, that, in the antero-posterior vertical plane, the genital passage has ordinarily only one curve, having the concavity of its axis looking forwards.

Direct therapeutical bearings of this matter are evident and important, both in natural and morbid parturition. Certain attitudes of the body, by increasing or diminishing the flexion of the iliac beams upon the sacrum (a movement which I have elsewhere described as nutation of the sacrum),(e) may alter not only the dimensions of certain parts of the genital passage, but also the relations of the axis of the pelvic brim to the axis of the uterus, or to the direction of the resultant of the forces of labour. In an elaborate paper(f) Schultze has attempted to show that similar results may be produced by flexion and extension of the spine. This author assumes that the lower lumbar vertebræ govern the uterine axis, and that the latter is normally inclined posteriorly to the plane of the pelvic brim. He therefore recommends that, when difficulty arises at the brim, the spine should be flexed so as to bring the axes of the uterus and of the brim, if possible, into coincidence; and if

(d) See my "Researches in Obstetrics," p. 334, etc.

(e) "Researches in Obstetrics," page 148.

(f) "Jenaische Zeitschrift für Medicin und Naturwissenschaft," Band iii., S. 272.

we admit his assumptions, there can be no doubt as to the justice of his conclusion. For practical application, however, the proper treatment may be stated in such a way as to offend no theory as to axes of brim or of uterus, or so as to stand good whatever view is held on these points. When, before labour, or while the fœtal head is still mobile above the brim, it is placed with its sagittal suture not traversing the centre of the brim, but lying anterior to it (as Smellie figures), then it will, during early labour, be pressed with a loss of force against the pubes, not directly into the brim. It will then be worth while to try whether flexion of the spine, by putting the woman into the attitude assumed in stooping forward, will correct the direction of the head (which I consider an unnatural direction). If it corrects it, the sagittal suture will be observed to leave the neighbourhood of the pubes, and approach or reach the middle of the plane of the brim. Again, if the uterine axis, or the resultant of the forces of labour, has this posterior obliquity to the axis of the brim, then, in the first half of its course through the ligamentous pelvis, the fœtal head may be expected to show the Naegele obliquity—that is, its half lying in the anterior half of the pelvis will be lower than that in the posterior as regards the plane of the pelvic brim, being pushed down with greater force; and it will be well worth while to try whether or not flexion of the spine will correct this direction of the head (which I consider an unnatural direction).

II.

The second curvature of the pelvis, which I proceed to describe, is, like the former, situated at the brim of the pelvis; but of its frequent existence there can be no doubt whatever. Its presence is indicated by the deflection of the uterus from the mesial line to the right or to the left, and it is well known to be observed at all times—that is, before, during, and after pregnancy; but as this paper is concerned only with dynamical matters, this deflection or deviation is interesting only as observed during labour. On the direction of this deflection to right or to left I have no remarks to make, but I may refer the student first to the recent paper on this subject by Winkler.(g) and then to the earlier observations of Spiegelberg(h) on this uterine position during labour. For my present purpose it is more important to have some idea of the amount of deflection which occurs. With a view to ascertain it, however imperfectly, I examined a series of cases which I found to present this condition. I did not in all of these cases make out whether or not the deflection persisted during uterine action, but I ascertained that it did so in some of them. I hope to make further observations on this point; but such an inquiry is not essential to my present purpose, it being sufficient to know that the deviation does generally persist during the so-called erection of the uterus in a pain.

I proceeded as follows:—Having the pregnant woman lying flat on her back, I made out the position of the uterus by feeling its outline with my hands. This manipulation shortly induced a pain which made the uterine form more distinct than previously; and then I could observe the outline, mark the projection of the direction of the axis on the skin, and notice its just incidence on the outline of the fundus. Then I measured off, as on a plane, the angle between the projection of the axis and the vertical line joining the ensiform cartilage and the symphisis pubis. I did not try to have guidance from feeling the uterine angles and the parts attached thereto, as Winkler has done in similar circumstances, because I thought that such guidance would not insure greater approach to accuracy in the measurements I wished to make with a view to purely dynamical considerations.

This angle I found in five cases to be 8°, 10°, 11°, 14°, and 15° respectively, or on an average about 10°. The problem now to be solved is to make out from this angle on the surface of the spheroid what is the corresponding deflection of the axis of the spheroid; and since the angle, as measured low down on the surface of the abdomen, lies in a plane nearly parallel to that in which the axis of the uterus is deflected from the antero-posterior mesial plane, the deflection of the axis may be regarded as nearly identical in amount with the angle measured on the surface.

It is probable that this angle of deviation of the axis of the uterus from the axis of the brim of the pelvis has important physiological and practical bearings; but as yet little has been made out regarding them. It has been looked upon as affording some explanation of the alleged comparative frequency of laceration of the cervix on the left side in ordinary labour.(i) But the most interesting application of it is to assist in accounting for the production of face cases.(k) It has been shown how, under certain conditions, and supposing a right lateral deviation of the uterus, the part of the head on the left side of the brim—that is, the seat of the concavity of the curvature—will have a greater tendency to descend—that is, to be more powerfully pushed downwards than the part on the right side of the brim. Of this there can be no doubt; and the probability of this being a true theory or explanation of face cases is highly increased by remarking the apt manner in which other things known in regard to face-presentations adapt themselves to it.

Another ingenious dynamical theory of face-presentation has been started by Schatz. He states it as follows:—"When the uterus alone is in action, or when there is also acting uniform resistance around by the walls of the pelvis, a cranial presentation always occurs, if the occipital foramen of the fœtal head at the time of the first more important shortening of the long axis of the uterus lies backwards from this towards the back of the fœtus, but a face-presentation if it deviates forwards from this towards the breast side of the fœtus. With the co-operation of non-uniform resistance by the walls of the pelvis, cranial presentation is produced if the occurring posture or negative distance of the great occipital foramen towards the back of the fœtus from the long axis of the uterus, multiplied into the positive or negative difference of resistance by the walls of the pelvis, is greater on the posterior side of the fœtus than the product of the same factors on the breast side. In the opposite circumstances face-presentation is produced."(l) To all this ingenious theorising there can be no objection, if the conditions are assumed. But the two chief premisses are merely assumed; they are not shown to occur; they are not shown to be more likely to occur in face-presentation cases than in others. Under these circumstances, I submit that there can be no hesitation in preferring the formerly described theory of face cases, where the corresponding assumptions or premisses are not mere assumptions, but well known facts. I refer to the occasional lateral deviation of the uterus, the occasional dolichocephalous condition of the head, and the greater liability of cases of the second or right occipital position to be transformed into face cases than of the first or left occipital position.

III.

The last curve of the developed genital passage which falls to be considered is the most extensive and the best known. It is the great curve in the antero-posterior vertical plane, which begins about the middle of the third bone of the sacrum, and extends through the outlet of the ligamentous pelvis to the outlet from the soft parts. Its length may be greatly diminished by rupture of the perineum, and still more if the sphincter ani is torn through. It forms a curve whose amount of bending varies from about 60° to about 150°.

In connexion with this curve, fall to be studied the synclitic and allied movements of the fœtal head during its progress, to which Kueneke has recently directed attention, and which have been so carefully discussed at home and abroad(m) that it is unnecessary to re-enter upon them here.

In connexion with this curve have also to be studied the development of the lower part of the genital passage—the greater development posteriorly where the force is particularly or more strongly applied, than anteriorly where there is little more than counter-pressure, or pressure against a fixed wall, and that chiefly during the temporary abeyance of the power of parturition. There is to be noted, also, in connexion with this curve, the inevitable tendency of the force of labour, not merely to distend the perineum, but also to rupture it centrally, to force the presenting part through it—a tendency the study of which, apart from other considerations, leaves no possible doubt as to the expediency of the practice of supporting the perineum: a practice which can be demonstrated to favour the maintenance of its entirety.

A novel practice, founded upon what I regard as a misapprehension of the conditions of this curvature, has been recently much dwelt upon by Professor Schultze, of Jena.(n) The practice has for its object to facilitate and promote the advance of the child after its head has reached the floor of the pelvis. It is proposed to effect this by extension of the spine, with a view to which a hard pillow is placed beneath the loins as the

(g) "Jenaische Zeitschrift," Band. iv., S. 522. 1868.
(h) "Monatsschrift für Geburtskunde," Band. xxix., S. 92. 1867.
(i) *Edinburgh Medical Journal*. June, 1871. P. 1061.
(k) *Edinburgh Medical Journal*. May, 1870.
(l) "Der Geburtsmechanismus der Kopfendlagen," S. 72.
(m) See *Edinburgh Medical Journal*, June, 1870, and the *American Journal of the Medical Sciences*, October, 1870, etc.
(n) See "Jenaische Zeitschrift für Medicin, etc.," Bd. iii., 1867; and "Lehrbuch der Hebammenkunst," 1870.

woman lies on her back. The extension of the spine he believes to increase the posterior obliquity of the axis of the uterus, and therefore of the force of labour as exerted in this part. By the change supposed to be thus effected in the direction of the axis of the uterus, the axis of the force of labour is brought more nearly to the direction of the axis of the outlet of the pelvis, whereby there is supposed to be produced a diminution of the otherwise necessary loss of power arising from the change of direction of the passage at this part. Schultze alleges that he has found this extension of the spine to be useful in practice. If this utility is confirmed and ascertained, nothing of course can be said against it. But for the enforcement of his recommendation of this practice it is evident that he trusts chiefly to theoretical arguments; and therefore I proceed to examine them, and believe I shall show that they are fallacious. Before doing so, it is worth while to point out that the attitude recommended by Schultze is a very unnatural one, and that a woman straining in labour, advanced to the stage at present under consideration, naturally assumes an attitude nearly opposite to that implied by extension of the spine—an attitude of some degree of flexion—an attitude which, in consequence of the relaxed state of the sacro-sciatic ligaments, may be accompanied by some degree of enlargement of the outlet by the posterior nutation of the apex of the sacrum.

To Schultze's theory of the facilitation of the latter part of the second stage of labour by extension of the spine several objections may be made. Firstly, it is inconsistent with his views as to the facilitation of the entry of the fœtal head into the brim of the pelvis by flexion of the spine. That view is based upon the assumption that the child's head enters the brim of the pelvis so as pretty nearly to occupy it and have a nearly vertical axis in the axis of the brim. If this be true of the fœtal head at the brim, it will be true of it during its course *mutatis mutandis*, and it will be true of that part of the body which occupies the brim when the child's head is pressing on the perineum. It will be impossible, therefore, by any change of the axis of the uterus to bring the line of the labour force to bear upon the perineum in the direction of a straight line, as Schultze represents it. Second, the upper cylindrical solid portion of the ligamentous pelvis, having a length of at least one inch and a half, has a well-determined axis, with which must correspond the axis of any body fully occupying it, if the body is of uniform consistence—conditions with which the fœtus nearly complies. If this be the case, the direction of the force of labour will follow the same axis, and no change of its direction above the brim of the pelvis, however produced, can have any effect upon its direction in any part below the brim of the pelvis. Third, Schultze forgets that his practice is intended to produce or increase posterior obliquity of the axis of the uterus to the brim, to increase the supposed curve of the natural promontory; and that every additional degree of that curve necessarily produces additional loss of power. The more, then, he extends the spine, he will diminish the power of labour available at the outlet of the pelvis, instead of increasing it, as he expects. Fourth, if Schultze's views, as illustrated by his diagrams, are correct,(o) a dangerous amount and direction of force would be brought to bear upon the perineum—a structure whose integrity is already sufficiently imperilled by a force whose direction is gradually changed as the fœtus passes through the lower half of the ligamentous pelvis.

Before concluding the consideration of the great curve of the genital passage in the antero-posterior vertical mesial plane, it is necessary to point out an important difficulty introduced into its study by the change in the condition of the ovum when passing through it, as compared with the ordinary condition of the ovum when passing the pelvic brim. Hitherto I have spoken on the assumption that the ordinary view of the action of the power of labour holds good at all points of the course of the child. This view is that the power is uniformly applied by the concave surface of the approximately spheroidal uterus to the uniform surface of the approximately spheroidal ovum, in a direction corresponding to the axis of the uterus and of the developed genital passage. Now, this view is probably nearly correct so long as the membranes are unruptured, or while no special part of the fœtus impinges on the uterus so as to injure its approximately spheroidal form, and provided no part of the fœtus impinges on the passage so as to cause special friction or obstruction at the part impinging. But, while the great antero-posterior vertical curvature of the genital passage is being permeated, this view is no longer tenable, although even then it may, in a confessedly inexact way, be advantageously kept in mind, if other more exact conditions are not stated. While this curve is being described, the membranes are generally ruptured, and the waters more or less completely discharged, and consequently the fœtus is in a variety of places impinging on and changing the form of the propelling uterus, and meeting with frictional obstruction in the passage at special points more than at others. These changes introduce an amount of complication of the problem which damages greatly the value of such considerations as I have above adduced, and I see no means at present of overcoming the difficulty of arriving at exactness, though there is probably no insuperable difficulty in the matter. Another element of confusion is introduced in the want of uniformity which exists in the composition of the fœtus as a mechanical body. It is especially to be noted that it contains a longitudinally placed elastic beam of connected vertebræ, which lies nearer the surface of the mass at one side than at the other.

The ovum or fœtus, in its passage through the developed genital canal, is subjected, in various circumstances, to various rotations on some more or less longitudinally directed axis. It is also subject, in various circumstances, to various revolutions or sinuous deflections, in which its long axis moves through portions of curves which are measured by corresponding angles. On these curves and their influence I have made a few remarks, while feeling deeply their imperfection and the need of much further observation and research.

The student who has followed the argument in this paper will have observed the resort to inferences when direct observations would have been preferable. This remark applies to every subject discussed in it; and, while it is to be greatly regretted that such is the case, it is at the same time not to be forgotten that no method of making direct and exact observations has hitherto been discovered. The adoption of the homalographic method is surrounded with difficulties, not only in the method itself, but also in the procuring of subjects on which to use it; and while results obtained by it would be of greatest interest and importance, it is evident that they would not be complete or sufficient, for they can never be other than observations on parts in the repose of death, not in the turgescence and action of life. Until very recently all our knowledge of the force of labour was on a like imperfect footing; but already ingenuity has suggested a means of basing this subject on exact observations, and Schatz has availed himself of these means, and greatly assisted us to arrive at results which we regard as probably the most important hitherto achieved in obstetric science. Till some ingenuity has succeeded in devising means of making like exact observations to settle the points discussed in this paper, we must be content to do our best to reach the truth by reasoning on what we do know more or less exactly. And it should be remembered that by this method we may reach the greatest assurance, if not certainty. A boy playing with his dissected puzzle-map may be certain that a county is rightly placed if it fits exactly into an entire hole formed of the conterminous boundaries of surrounding counties, especially if it also fits in nowhere else. So a theory which suits itself to all, or is in opposition to none, of numerous known conterminous conditions, may be, provisionally at least, assumed to be correct; and such assumption of correctness will vary with the number and testing character of the conditions so humoured by the theory.

(o) "Lehrbuch der Hebammenkunst," Fig. liii.

Chloral in Tetanus.—At a recent meeting of the Belgian Academy of Medicine, M. Rommelaire read a very favourable report on a case of traumatic tetanus successfully treated by chloral by M. Geens. After trying various heroic remedies in a very bad case of this, he obtained complete success with chloral, in doses of forty-five grains, administered by the rectum.—*Journal de Bruxelles*, December.

Death of Professor Laugier.—Another of the celebrities of the Paris Medical Faculty has just passed away, in the person of Professor Laugier. Although he had attained his seventy-third year, he was still, until quite recently, most actively employed as Clinical Surgeon at the Hôtel-Dieu. During the siege of Paris, too, he took charge of an ambulance. At his funeral, which was attended by a large number of the members of the Faculty, the Institute, and the Academy of Medicine, of all of which bodies he was a member, the speakers laid great stress upon the importance of the projected revival of the *concours*, which had led to the election of so many eminent Professors between 1830 and 1850. Laugier only attained his Professorship after contesting four of these *concours*.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
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No. III.

(*Continued from page* 222.)

It appears, from the results obtained upon the schema, that the degree of dicrotism depends especially on two conditions—first, the amount of capillary obstruction; secondly, the rapidity of the heart's action. The tracing represented in Fig 5 was obtained from the schema, the capillaries being dilated, and the contractions of normal rapidity. Under these conditions, the tension of the arterial walls being at its minimum, they are more easily distended by the various waves transmitted through the blood, which are accordingly all well marked. The tracing is not fully dicrotous, and the dicrotic wave or diastolic expansion is preceded by the slight secondary wave noticed above. Now, by making the contractions in quicker succession, the other conditions remaining the same, the arterial tension is increased. This is shown sphygmographically by the elevation of the mainspring to a higher plane in the artery, the writing-lever being raised above the level of the slide. The distance between the short intermediate lever and the mainspring requires to be diminished accordingly by the regulation of the long screw which traverses the former. A tracing obtained under these conditions, represented in Fig. 6, is seen to be hyper-dicrotous—that is, the lever reaches the lowest level. In other words, the artery is least distended, not at the termination of diastole, as is usually the case, but at the termination of systole. The arterial tension is greatly increased by the rapid contractions of the heart; more blood is received by the arteries than can be got rid of by the capillaries, and a certain amount of tension being reached, it continues till either the capillary obstruction is decreased or the contractions of the heart become slower. Meanwhile, each contraction of the heart sends a comparatively small amount of blood into the arterial system; the tension, already great, is rapidly raised and again rapidly falls; the aorta, like the rest of the system, previously distended, becomes much more so by the cardiac systole, on the cessation of which it contracts by virtue of its elasticity, thus supplementing the heart's action, and, by a beautiful physiological economy of force, assists to urge on the blood through the capillaries. A fresh ventricular contraction now ensues, and, owing to the increased rapidity of the heart's action (which shortens its time of rest, and thereby has a most injurious effect upon it, as we shall see hereafter in the study of acute disease), the new pulse-wave closely follows the aortic contraction, and completes the distension of the artery commenced by the diastolic expansion. When the contractions of the heart become so rapid as not to leave time for the aortic contraction, the pulse assumes the *monocrotous* and most dangerous form. Fig. 7 represents a tracing taken with the capillaries more contracted, and the contractions of the heart normal in rapidity. The whole wave is smaller, from the increased tension of the arterial walls, and the dicrotism is greater than in Fig. 5, the pulse being now fully dicrotous—that is, owing to the capillary resistance being greater, the ventricular contraction being able to force less blood through the arteries, the aorta becomes more distended, and the diastolic expansion comparatively greater. By increasing the rapidity of the contractions, the tracing becomes more hyper-dicrotic than in Fig. 6, as shown in Fig. 8; the reason we have already seen. By still further increasing the capillary obstruction, the pulse-wave is again diminished and the degree of dicrotism increased, as shown in Figs. 9 and 10. These deductions are the result of constantly repeated observations. The tracings have the same characters, both in the aorta and radials, though in the latter the waves are somewhat exaggerated, and do not bear so close a resemblance to the hum n pulse, probably from the great increase of pressure present in them, produced both by the height of the column of fluid above them and the gradual contraction of the size of the tubing.

In another series of experiments, made under much more simple conditions—namely, with an indiarubber tube ten feet in length and of an uniform diameter, the heart and the tube lying horizontally in the same plane, and the free end of the tube raised to a height of four feet, in order to produce a regulated and ascertained amount of pressure in the tubing—the results obtained by varying the rapidity of the contraction and the constriction of the orifice of exit, when the sphygmograph was placed at the distance of six feet from the heart, so that there should be a sufficient length of tubing before the point of application to produce the effect of the elastic aorta, were exactly similar to those stated above, though when the sphygmograph was placed only two feet from the heart, by variation of the constriction of the outlet, opposite results were obtained.

I am aware that these conclusions are opposed to the theories usually taught, and especially to Dr. Sanderson's views, he having laid down the rule, that "Dicrotism is characteristic of that condition of the circulation in which the arterial pressure is diminished while the venous is increased." Still, both experimental results and clinical observations have compelled me to form the views stated above, notwithstanding my reluctance to differ from one who has studied the subject so thoroughly. Besides these two most important conditions, there are certain pathological states which increase dicrotism, such as deficient muscular tone in the arteries, or obstruction to the circulation in the veins or in the right side of the heart.

Increased capillary obstruction has been stated to be an important element in the production of dicrotism. A few words will be necessary in explanation of the occurrence of this condition of obstruction. Wherever in the living body tubes are surrounded by circular and longitudinal layers of organic muscular fibre, as in the arterics, we find peristaltic action taking place; the œsophagus, intestines, Fallopian tubes, ureters, probably the vasa deferentia, and other gland-ducts, may be mentioned as examples—in fact, peristaltic movement is one of the leading characteristics of organic muscular fibre. Why should it be absent in the arteries, where it would especially serve a most useful physiological purpose? The highly interesting and important observations recently made by Legros and Onimus go far towards proving its occurrence, and many of the leading physiologists now entertain similar views. Peristaltic action may be seen by careful observation, by the aid of the ophthalmoscope, to occur in the human eye; also in the rabbit's ear or bat's wing. If the sympathetic trunk be divided in the neck of a rabbit, as in Bernard's experiment, peristalsis is lost in the ear of the injured side, while present in the opposite one. By this phenomenon, and the control exercised over it by the vaso-motor nerves, I shall seek to explain many of the variations in dicrotism. According to the old theory, paralysis of the vaso-motor nerves produced dilatation of the vessels, and this is undoubtedly correct. Mere dilatation of the vessels would mean an accelerated and less restricted flow of blood through them, and would be the reverse of obstruction; but when we consider that paralysis means loss of peritalsis—that is, loss of an important aid to the circulation—it is evident that obstruction must be produced: the effect will be the same whether the vessels be dilated or contracted. The circulatory system having thus lost one aid, calls into active service another—namely, the elastic coat of the aorta. This, by its greater distension, and consequently more powerful contraction, causes the pulse to become dicrotic, and economises the force of the heart's action; for that part of it which was ineffectually employed against the capillary obstruction is stored up in the elastic coat of the aorta, and again applied to the capillaries, in the shape of the dicrotic wave, during the heart's diastole.

There still remains one other feature in a pulse-tracing to be mentioned—namely, the *respiratory line;* or, as it might be designated, the *line of arterial tension.* It is found in a normal pulse-tracing by a line drawn through the bases of the percussion upstrokes, as stated above; it indicates the lowest plane to which the sphygmographic lever reaches in the artery; it therefore denotes the period of greatest arterial collapse. It varies according to the amount of blood contained in the vessel at the termination of diastole, and in the normal pulse maintains the same level throughout the tracing. But, under certain conditions, to be noticed hereafter, it may be affected by the acts of respiration. When this is forcibly performed its effects are visible in the normal pulse. Fig. 15, Pl. i., shows the increased arterial tension produced by an expiratory effort, the larger vessels of the thorax being perhaps partially emptied by the pressure of the contracted parietes; but more especially I take it to be produced by the much smaller amount of blood contained in the compressed lung than in the expanded one. The blood in the pulmonary circulation is therefore decreased, while that in the systemic is increased. The opposite effect is seen in Fig. 16, Pl. i., produced by an inspiratory effort, the conditions being exactly reversed; for here the widely expanded lung draws blood to fill its capillaries from the systemic circulation, the tension of which is accordingly diminished. Each portion of a pulse-tracing has now been discussed, and

the physiological meaning assigned to every movement of the lever. From the conclusions arrived at, it will be seen that the analysis of a pulse-tracing will yield us information on the following points :—

1. The amount of pressure employed will measure the softness or hardness of the pulse. This depends chiefly on the force of the heart's action, and on the tension of the arterial walls.

2. The percussion-wave will indicate, by its verticality and the proportion it bears to the tidal wave, the mode of the heart's contraction, whether slow and feeble, or sharp and strong. It is diminished by very high arterial tension, increased by low.

3. The height of the tidal wave is a measure of the amount of blood expelled from the ventricle.

4. Convexity of the succeeding curve indicates obstruction to the arterial collapse. It is spoken of as "prolonged systolic expansion," and may arise from various causes.

5. The amount of dicrotism in a normal pulse is dependent on the tone of the muscular coat of the arteries. As a pathological condition, it is increased by capillary obstruction, by interference with the venous circulation, or a want of relation between the rapidity and force of the heart's contraction and the arterial tension.

6. The relative duration of systole and diastole must be noticed. This was formerly measured in the following manner:—A horizontal line is drawn from the base of one percussion-stroke to that of the succeeding one; a vertical line, drawn through the lowest point in the aortic notch at right angles to the horizontal line, will divide the latter into two parts, the first part representing the time occupied by the systole, the second that by the diastole. The systolic portion nominally extends over about two-fifths; the diastolic about three-fifths. This division, however, Mr. A. H. Garrod, in his highly interesting communications to the Royal Society (Nos. 120, 1870, and 126, 1871), to which I would refer my readers, has shown to be incorrect. The length of the systole may be found from the radial pulse-tracing by adding what he terms the *first cardio-arterial interval* to the *first arterial interval*. The first cardio-arterial interval is that which elapses between the commencement of the cardiac systole, as indicated in a cardiographic tracing, and the commencement of the percussion upstroke in a pulse-tracing. Taking x to represent the rapidity of the pulse, and z the first cardio-arterial interval, Mr. Garrod shows that the number of times that this interval is contained in its component beat may be calculated by the formula $x\,z = 39\,\sqrt{x}$. The first arterial interval is that composing the systolic part of a pulse-tracing, extending from the commencement of the percussion upstroke to the lowest part of the aortic notch. Mr. Garrod calculates its duration by the following equation, in which y' represents the number of times it is contained in its component beat, and x the rapidity of the pulse—$x\,y' = 47\,\sqrt[3]{x}$.

7. The effect of respiration on the pulse, whether causing a variation in the arterial tension, and producing an undulating respiratory line.

These points should be noticed in examining all tracings. They may be applied in the examination of the healthy-pulse tracings in Pl. i. In Fig. 17 there is a little senile change perceptible in the prolonged systolic expansion, from the deficient elasticity of the arterial coats. In Fig. 18 the tidal wave is absorbed by the percussion-wave; the verticality of the upstroke indicates its origin from percussion, while the tidal wave appears as a faintly perceptible interruption in the downstroke following it. In Fig. 20 the percussion-stroke is lost, and only the tidal wave remains, the upstroke being oblique, instead of vertical. The pulse is very soft, only requiring one ounce of pressure, and the heart's contraction somewhat deficient in power. In Figs. 22 and 23 the effect of exercise is even on the pulse; the rapidity is increased and the tidal wave diminished. In Figs. 22 and 24 the dicrotism is hardly discernible, the arterial tone being good. The variable tonicity of an artery appears to be entirely due to the muscular coat, for the contraction of the elastic coat is merely mechanical—it is the same after death as during life, and it is not controlled by nervous influence; whereas dicrotism is increased by paralysing or narcotising the vaso-motor nerves by alcohol, warmth, and some drugs, whilst it is diminished by stimulating them with digitalis, by cold affusion, or other means. In a perfectly healthy male-pulse tracing, the downstroke should be an almost straight line, and the pressure employed considerable—say, ten ounces, or even more; but such pulses as these are very rare.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

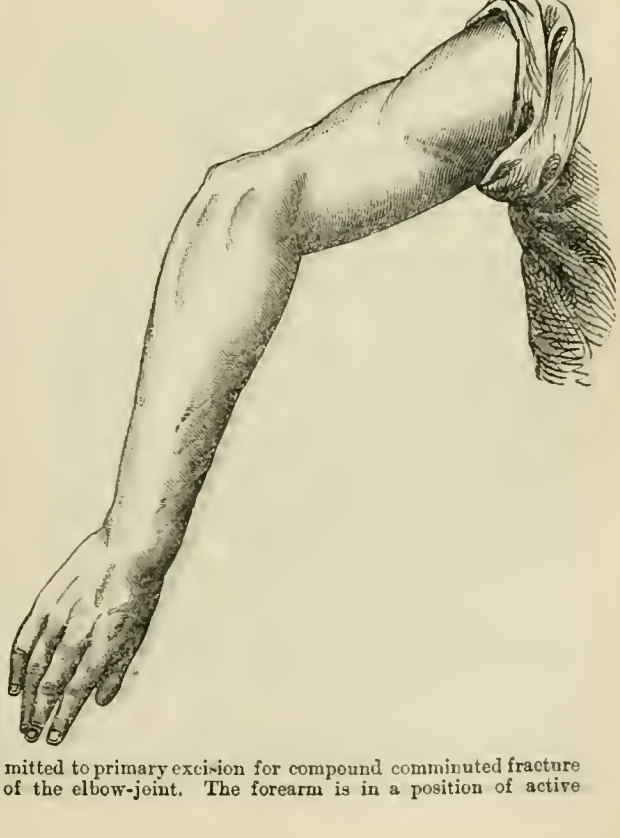
MR. MAUNDER'S CLINIC.

Case 1.—*Excision of the Ankle-joint.*

Eight years ago, G. H., then 14 years of age, was submitted to excision of the ankle-joint for strumous disease thereof. All the joint surfaces were removed, and in due time the wounds healed soundly. For some years this patient has been employed standing and walking many hours daily, and without the least discomfort. The limb is a most useful and shapely one, as seen in the drawing just taken (1872), and the young man walks with a scarcely perceptible halt.

Case 2.—*Excision of Elbow-joint.*

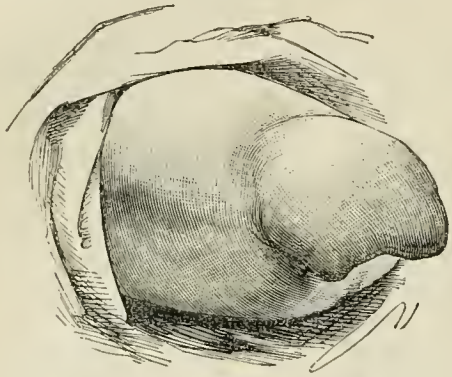
The drawing has been taken (1872) of the right arm of a male, about 34 years of age, who, three years ago, was submitted to primary excision for compound comminuted fracture of the elbow-joint. The forearm is in a position of active



extension by the triceps muscle, a desideratum which Mr. Maunder has shown may be always secured to a patient who has undergone this operation, provided that a prolongation of the triceps tendon, which passes between the external condyle and the olecranon, to become continuous with the fascia of the forearm, be preserved. It is usually, but wrongfully, cut transversely, to facilitate exposure of the bone ends.

Case 3.—*Amputation through Knee-joint.*

The patient, a female, over 50 years of age, when in a very feeble state from want of food, and the subject of a large phagedænic sore on the leg, which got worse, was, at her own most urgent entreaty, submitted to amputation.



The operation was performed between two and three years ago, and the appearance of the stump (1872) is well shown. The articular cartilage and patella were left intact. The integument is non-adherent, and the patella, though somewhat retracted, is not immovable. The stump so formed is admirably adapted to bear pressure, and, indeed, we lately saw the patient sustain her whole weight upon it without the least discomfort. This operation requires in its performance great care and attention to details to prevent a very objectionable result—exposure of the condyles at the wound. The cicatrix lies altogether behind the condyles.

BIRMINGHAM GENERAL HOSPITAL.

PEMPHIGUS IN CONSTANTLY RECURRING PAROXYSMS THROUGH TWO YEARS — NEARLY SUSPENDED UNDER TREATMENT FOR EIGHT MONTHS—TEMPERATURE RECORD.

(Under the care of Dr. RUSSELL.)

I HAVE added to the notes of this case a brief record of a second, which occurred to me in private practice. Both cases are in agreement with a common type of this malady—viz., the continued recurrence of the eruption in periodic attacks; and they also illustrate the different modes in which this paroxysmal character may exhibit itself. In the former of the two, the subject being a young child, the paroxysms followed so close upon each other as to constitute almost a continuous disease; yet each paroxysm seemed to have been preceded by severe constitutional disturbance, together with a general erythematous rash. We witnessed one of these attacks in the Hospital, and, although it was at the distance of two years from the commencement of the illness, the intensity of the erythematous inflammation, and the height of the temperature, together with the vomiting, closely resembled the ordinary prodroma of an attack of erysipelas. The attack had all the characters of the "pemphigus acutus" of authors. On the other hand, in the second case the intervals between the three attacks were complete and prolonged, the reason being that in this case the exciting cause appeared to be pregnancy. The remarkable change, however, in the relation of the pregnancy to the eruption in the third outbreak will be noted. In one of several cases of pemphigus which I published in this journal in October, 1864, and 1865, the same paroxysmal character was exhibited in an equally characteristic shape, the outbreaks having continued over a period of ten years, sometimes lasting three months. It appeared that in this case, also, there was absence of the intense constitutional reaction noticed above in the child. This patient was 23 years of age. The acute febrile introduction appears to appertain chiefly to children. The cases formerly narrated, conjoined with my present ones, present this disease at ages varying between 6 years and 70 years, and in very different states of constitution. In my former papers two cases of apparently local pemphigus were noted, and exhibited very remarkable nervous prodroma limited to the part affected by the bullæ. Nervous prodromata were again present in the other cases, and will also be noticed in the second of those which follow, accurately defining the site of the forthcoming eruption. To this I may add that in each of my present two cases symmetry in the arrangement of the erythematous spaces in the first and of the eruption of bullæ in the second is noted.

Of course, to refer to local nervous derangement as preceding the outbreak of the eruption in the case of pemphigus, as of many other maladies, is only to advance a step nearer in explaining the mechanism by which the condition in question is produced; it still leaves uneffected the differentiation of the primary cause in pemphigus as distinguished from other diseases. I may refer in this relation to a most interesting paper by Dr. Ballard, in the first volume of this journal for 1871, page 5, on a severe case of pemphigus contracted from an eruption on the teats of a cow, of which eruption he narrates very remarkable particulars derived from Mr. Ceely and from other authors. On the subject of the nervous derangements attending the disease, I may point to the general redness of the surface in one of my present patients after the bath as compared with the tendency to perspiration and flushing of the face observed in the subject of one of my former cases.

I think I am justified in believing that arsenic exerted a decidedly favourable influence in both of my present cases. In the former of the two an almost complete arrest of the paroxysms, which had been uninterrupted through two years, according to the mother's report, took place under this remedy, and a return was threatened when the arsenic was suspended for the experimental use of a hypophosphite. Nevertheless, I have no justification for regarding the arsenic as having effected a cure; but the tolerance manifested by the young patient of even a full dose for nearly eight months may possibly afford means of keeping the eruption in check until some change in her constitution comes to her aid.

In the second case the benefit of the arsenic seemed equally direct. I make this remark because Hebra expressly states that "I even yet know of no *internal medicine* which has proved efficacious against pemphigus," and he specially includes arsenic in his condemnation.

Case 1.—E. B., aged 6 years. Her family history is perfectly free from all forms of nervous disease, from rheumatism, and, so far as I can ascertain, from syphilis. The mother, whom she very closely resembles, has never had any eruption. There are three children. The eldest, aged 13, has very good front teeth; he, like the patient, has light complexion, brown silky hair.

The patient passed through the process of dentition favourably, and was perfectly healthy till two years ago, when, after a very slight injury to the left leg, the mother found the limb next day much swollen, and "all on fire," and little blisters, never exceeding the size of a split pea, broke out over the entire surface of the leg. The attack did not much affect the child's health. It lasted ten days; but in three weeks after both legs and thighs became red and angry, and by the following morning were much swollen, and were covered, more or less, with small vesicles, gradually enlarging to the size of a fourpenny-piece. From this date the child has never been free from the disease, and the attacks have been getting gradually more severe. It was twelve months before the eruption spread to the trunk, and two months longer before the face and upper extremities were reached by it. Each time the bullæ were larger, and more generally distributed. The disease occurred in paroxysms, always commencing with a good deal of constitutional disturbance, followed by erythema; an interval of two or three days only separated the paroxysms.

The child looked plump and healthy; with a clear transparent skin, and clear corneæ. There was no glandular enlargement. She was admitted on April 10, and was sent to a convalescent institution in the middle of December.

When admitted she was just recovering from an attack of her disease, the crust of a general eruption of bullæ remaining.

Three days afterwards (on April 13) she was attacked with vomiting, but her temperature was not disturbed; on the evening of the next day erythema broke out on both legs, and extended to the arms by the following morning. On the 16th a deep red blush occupied a great part of the face and forehead, observing exact symmetry on the two sides, and also most part of the four limbs; it had also extended over the front of the neck, and over the right front of the chest. The old crust remained, and there were also a few recent bullæ.

The temperature, taken by our clinical assistant, Mr. E. Elkington, on the day following the appearance of the erythema (the 15th), was 104°, and in the evening 104·6°; pulse 150; the tongue coated; and there is some nocturnal delirium. The urine was 1032, loaded with urates. For five days (to April 19) the evening temperature remained at 104·6°, the morning remissions gradually increasing, till, from the evening of the fifth day, a sudden fall to normal occurred by the morning after, the temperature, however, of the succeeding evening running up to 102·5°. The evening pulse was 130 to 120; the tongue still coated. During the period of six days a few fresh bullæ appeared, but the erythema gradually subsided, leaving, however, extensive desquamation; but, during the next three days (to the 24th), the temperature gradually becoming normal, some scattered groups of vesicles showed themselves, especially around the mouth, which, indeed, thoughout the entire period of the child's stay in the Hospital, was seldom free from a circle of vesicles. It was at this period (the 23rd) that administration of arsenic was commenced. But on April 24 the temperature suddenly ran up to 103·2° in the evening, and retained an evening marking of 102° for four days longer (until the 28th), when defervescence by lysis began, and was completed by May 2, thenceforward the temperature remaining normal through the remainder of the case. This last rise of temperature remained unexplained for three days, otherwise than by a few erythematous patches and by some bullæ; but, on the 27th, a general eruption of flat, rounded vesicles broke out, each one surrounded by an areola; and by May 2, the day on which the normal temperature was permanently regained, the front of the abdomen and the inside of the thighs presented a large crop of full-sized bullæ, which were also numerous on the other parts of the body and limbs, but more scanty on the face. This eruption ended without the contents of the bullæ becoming purulent; in the preceding attacks the fluid had always assumed a purulent character.

On May 11 the eruption had disappeared; the crusts were removed, their places being indicated by red patches, and the body was smooth. The mother affirmed that the child had not enjoyed so long an immunity from the disease for two years. This was the last batch of eruption which occurred to the child; though all through her residence one or two, or sometimes more, vesicles were apt to show themselves, and to the last they continued to encircle the mouth. The patches where the bullæ had rested became paler, and finally were indicated by their greater whiteness by comparison with surrounding skin, constituting, in fact, very superficial cicatrices. The skin was quite smooth and soft, and she was hearty and in good spirits. Nevertheless, two abortive attempts at a paroxysm took place (on June 13 and July 31), in the form of a brief eruption of small vesicles in considerable number—which, however, had no effect on the temperature of the body—and one single blister of very large size nearly covered the inside of one foot below the ankle, from friction of a boot. The sore it produced was open for a fortnight. A third attempt took place in September, when arsenic was temporarily replaced by phosphorus.

The treatment consisted simply in the daily use of a bran bath for half an hour, in the administration of the liquor potassæ arsenitis, and of cod-liver oil, and in a nutritious diet. The arsenic was commenced, as stated above, a fortnight after the patient's admission; a dose of two minims was raised to three, and by August 11 to five minims. It was borne without the least difficulty. On August 22 I purposely replaced the arsenite for the hypophosphite of soda, in doses of from seven to ten grains, but threatening of return of the disease compelled me to restore the arsenic, and to the present time she takes it in the dose of five minims. The nurse observed that each time she was taken out of the bath her body was remarkably red all over, the redness lasting for three-quarters of an hour.

Case 2.—Three attacks of pemphigus—the first two at precisely the same period, after successive labours; the third immediately after quickening, in the following pregnancy.

I have only a few particulars respecting this case. Mrs. H., aged 31, had passed through her first pregnancy and labour quite satisfactorily. Two days after her second labour (fifteen months from the first) she was attacked with pemphigus on the dorsum of each foot, and on the back of each hand and arm. The eruption was preceded by itching lasting an entire day. She was ill with her complaint for a month, and has not been well since.

The third child was born three years and a half subsequently; on the second day after, as before, the eruption again showed itself, preceded, as on the former occasion, by itching for a day; and as the eruption extended, the premonitory itching was so precise that she could predict the spot to be occupied by the bullæ. I saw her in consultation about five weeks afterwards. At that time there were the remains of a broad belt of bullæ on the lower third of each leg; there were bullæ on the dorsum of both feet which were puffy), and others were scattered on the outside of each thigh, and on each gluteal region, the inner aspect of each thigh being free. There were also a tolerable number of bullæ on the back and front of each forearm, and a few chiefly on the posterior aspect of each upperarm, and some small ones on the throat. In the former attack the contents of the bullæ remained clear; on the present occasion I found them purulent in a large number.

I saw the patient but once. I am sure I prescribed arsenic, but I have omitted to note the medicine. I afterwards heard that she soon recovered.

Exactly seven months afterwards she again consulted me. She had just quickened, and a renewed eruption of bullæ intermixed with flat papules had appeared on the limbs and trunk. A broad patch existed at the lower part of each leg in front; other bullæ and papules were thickly scattered over the abdomen and arms, observing singularly accurate symmetry in their arrangement on either side. I at once prescribed Fowler's solution of arsenic. She did not return, but I heard that she recovered very rapidly.

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Medical Times and Gazette.

SATURDAY, MARCH 2, 1872.

THE THANKSGIVING.

The ceremonial of Tuesday last was one which must command a notice, even in the most professional of journals. The national demonstration which it elicited was an event which had the highest interest for all whose proper study is man. It would be easy to descant on such a simultaneous action of a large mass of the human species from the heights of philosophy, to read in it an illustration of the instincts and proclivities of race, an example of the influence of tradition, and of the contagious and epidemic character of national sentiment; or, to descend to a more purely professional standpoint, to make it the occasion for a clinical essay on the cases of accident which it sent into most of the London Hospitals, and which, unfortunately, are only too certain accessories of a great popular concourse. But the sights and recollections of Tuesday have left us for the time little taste for the freezing heights of philosophy; and we shall be forgiven, we hope, if we supplement our record of the casualties with a reminiscence of the bright scene and the august and impressive ceremony. For the Profession to which we belong, and for whom we write, the National Thanksgiving will ever be a memorable event. The *Te Deum* sung on the occasion was not for the slaughter

of a hostile army or the destruction of a threatening fleet. It was a nation's thanks to the Great Healer of sicknesses for the success which had crowned the efforts of those whose Profession and designation Himself has deigned to assume.

With some such reflection as this, we took our allotted place in the Cathedral of St. Paul's early on the bright morning of Tuesday last. Abler pens than ours have descanted upon the impressive sublimity of the scene; we therefore shall not attempt to describe it.

The hours fled rapidly, winged by the interest with which we watched, as one by one the representatives of English science, politics, wealth, art, commerce, industry, and last, not least, of refined and happy English womanhood, filled up the spaces under the vast dome and massive arches of Wren's perennial monument. As the sun, through the aisles of the Cathedral, glinted on masses of bright uniforms and gay colours, now lighting up faces which will be remembered in history, and now bringing into bold relief quaint garbs and antique guises which carry thought back to the Tudors and Plantagenets, the low hum of conversation (in which it was impossible, even in a church, not to indulge) is stopped, as a far-off sound, at first like the wind in a distant forest, becomes louder and louder, until as the voice of many waters it roars and surges round the Cathedral. Marshalled by heralds, and preceded by civic functionaries, the two dignified representatives of the two Chambers of Parliament, a long line of white-robed clergy, and officers of Royal State, whilst the organ peals out the National Anthem, the Queen, accompanied by the Princess of Wales, and leaning on the arm of the Prince of Wales, followed by her children and grandchildren, and by a brilliant Court, walked slowly up the nave. The Prince looks fairly stout, but pale, and a slight limp in his gait attests the severity of that local malady on which so much was written and read a few weeks ago. It is now well known that his Royal Highness was in some suffering during the whole time of the ceremony, and if the mere dictates of prudence had been listened to would not have been present. We will not attempt to criticise the solemn service of praise and thanksgiving which followed, although we should have nothing but favourable criticism to offer. It will suffice to say that the intoning by the officiating priest, the Rev. Mr. Cowan, was an example of the physiological perfection to which the human larynx can be trained, and that Mr. Goss's music (although a *Te Deum* of Handel or Sebastian Bach, and the unsurpassed, and perhaps unsurpassable, Hallelujah Chorus, would have been acceptable) was far above mediocrity, and was superlatively rendered by the choir.

And now for a word or two on the Medical aspect of the Cathedral. Male court dress is trying—it does not suit any but handsome people and good figures; still, our Professional brethren of the Royal Household stood the ordeal wonderfully, and may be congratulated generally on their appearance. We noticed Sir William Jenner, Sir William Fergusson, and Mr. Spencer Wells in friendly chat. Not far off was the venerable Sir Henry Holland, and Sir Charles Locock might have been taken for a general officer in his Deputy Lieutenant's uniform. It was rather late when Sir Wm. Gull arrived and was conducted to his seat. The part of the Cathedral where our brethren chiefly gathered was near that occupied by her Majesty's judges, and behind the seats for peers and peeresses. Dr. Burrows, the President of the Royal College of Physicians; Mr. Busk, the President of the Royal College of Surgeons; Dr. Risdon Bennett, the Senior Censor of the Royal College of Physicians; and Mr. Trimmer, the Secretary of the Royal College of Surgeons, were amongst the familiar faces which caught our eye. Not far off was Sir James Paget. Dr. Stokes, Physician-in-Ordinary to her Majesty in Ireland; Mr. Porter, Surgeon-in-Ordinary to her Majesty in Ireland; and Mr. Wharton, the President of the Royal College of Surgeons in Ireland, were also present. Amongst the other members of our Profession whom we noticed in the Cathedral were—Dr. Acland, of Oxford, and Dr. Paget, of Cambridge, Dr. Wilson Fox, Dr. Andrew Clark, Dr. Tilbury Fox, and Dr. Lavies. But the space is so vast that no doubt many were undistinguishable. Dr. Lush, Dr. Brewer, and Sir Dominic Corrigan had seats amongst the Commons. The Medical Director-General of the Navy, Sir Alexander Armstrong; the Medical Director-General of the Army, Sir Galbraith Logan; and a long list of Medical officers, whose names we publish elsewhere, had seats on either side of the nave.

The interest of the day would have been heightened, we think, had the Medical attendants of his Royal Highness formed part of the Royal Procession. We suppose the rules of Court etiquette forbade. Still it was a proud day for Medicine. We believe that of the countless thousands who on Tuesday gave vent to that sentiment of loyalty, which, once awakened in England, is perhaps our strongest national passion, not one but would have given a share of the ovation to those whose skill, under the ruling of the Most High, has restored to the British empire the Heir Apparent.

THE GENERAL MEDICAL COUNCIL.

The General Medical Council meets this session in the miserable room, hung with tenth-rate portraits of distinguished dentists, which they hire from the Dental Hospital. It appears that neither of the Royal Colleges can accommodate them, and Soho-square is the only alternative. We think that a body which possesses funded property to the amount of at least £23,000, which is in the receipt of a large income, and which represents in some sort the whole Medical Profession of the three kingdoms, should have a building of its own, and not rent a couple of rooms merely which have not the recommendations of comfort, cleanliness, or space. This, however, is a matter for their own consideration.

The main object of their session is to receive the reports of the Examining Bodies as to the result of their efforts to form Conjoint Examining Boards in the three divisions of the kingdom, and to proceed, if possible, thereon. It has, however, been long evident to well-informed observers, that no Conjoint Scheme which has any coherence or breadth to recommend it will, or probably can, be framed, or any which ought to receive the sanction of the Council. This opinion has been expressed in this journal for some months past, and events are bearing us out in our assertion. Not only does the Apothecaries' Society find insuperable legal difficulties in accepting the scheme of the Royal Colleges of Physicians and Surgeons, but now the University of London has been informed by her Majesty's Attorney and Solicitor-General, and by the Home Secretary, that they cannot in any way legally enter into the scheme. The English scheme, therefore, as a real attempt at the erection of one portal for the Medical Profession, is virtually at an end. On the side of Medicine it would only comprehend the Royal College of Physicians, with its comparatively small number of Licentiates, and the two Universities of Oxford and Cambridge, which between them grant perhaps a score of Medical degrees in a year. On the Surgical side is the Royal College of Surgeons, which, as we hear on adequate legal authority, can be compelled, by *mandamus* from the Court of Queen's Bench, to examine for its membership any person who has complied with reasonable, but not unreasonable, requirements as to course of study, and who shall prove himself on examination to be competent to practise as a Surgeon. The College of Surgeons can have no legal right to compel candidates for its membership to pay a sum of money to the Royal College of Physicians. Then, again, there is considerable doubt whether the General Medical Council has the power to sanction any scheme of the kind. The Act of 1858 gives it the right to sanction any scheme between two or more of the Examining Bodies for the combination of *examinations* only—not for the combination of licences to

practise or of diplomas. It is very amusing, after the talk there has been in some quarters of the antiquated bondage under which the Society of Apothecaries labours, and of the "happy despatch" which it has been performing on itself by refusing to break the law of the land, to find the most advanced and most liberal of the Universities obliged to bend to the same rule, and to acknowledge itself under the same antiquated trammels. The fact is, that neither public bodies nor public men can break or alter the laws of England in conformity with their particular views of what may be desirable or undesirable. We think the sooner some of the self-constituted leaders of the Medical Profession are convinced of this fact the better.

Then, again, as we stated last week, there is no hope of Conjoint Boards in Scotland or Ireland; especially not in the former kingdom, where the principle is regarded as mistaken and the idea is unpopular, and where at least one, and the most important, of the Universities finds that combination is impossible with due regard to its interests, and where other of the Universities and the Corporations are hopelessly at variance on the purposes which a Conjoint Board is to fulfil. We, therefore, can only surmise that the General Medical Council will exercise that policy of masterly inaction for which it is renowned, and on the present occasion will wisely let well alone. The fact is, Medical Reform is not so urgent a matter as to compel the Profession to put themselves under the heels of a Government department—the price they would be expected to pay for a new Medical Act—and we are obliged at last to confess that the legal difficulties which must be overcome before we can reach the long-talked-of "one portal" seem unsurmountable without fresh legislation.

The first business done on Thursday, we presume, will be the introduction of Mr. Bradford, the new representative of the Apothecaries' Society. Then will follow the appointment of Committees, then the reception of the Army Medical Return, and a letter from the Government on the subject of Death Registry. The resolutions of the Examining Bodies on the subject of Conjoint Examinations will then be received and discussed, and afterwards a communication from the Commissioners in Lunacy. It is rumoured that Dr. Acland will move for Committees on the Medical Education and Qualification of Women. We think that the Medical Council had better, for the present at least, leave that subject alone. We can assure them that they will satisfy nobody. If they attempt to settle it at all they must be prepared for a sitting protracted far beyond the usual limits, and out of doors the most unsparing criticism.

ACTION FOR ALLEGED MALPRAXIS IN VICTORIA.

Cases of action for malpraxis would almost be unknown if it were not for meddlesome Surgeons and speculative lawyers. It is certain that in most of these cases the party proceeded against is more or less victimised. If the verdict be against him, it is usually on insufficient or *uncertain* evidence; and if for him, the plaintiff being usually a pauper, he is mulcted in his own costs, often to a very large amount. It is unnecessary to call the recollection of our readers to instances of both these kinds which have occurred in this country. A case is now occupying the attention of the Profession, and to some extent of the public, in Melbourne, which has some points of interest in it. It has been referred to occasionally by us, and we have strongly reprobated the evidence of the Surgical witnesses for the plaintiff as being opposed to sound Surgery, and subversive of the best interests of the Profession. The case may be told in a few words. An old woman, of doubtful age—say from 50 to 70—is tripped up by a dog in the street on October 11, at ten at night. She sends for Mr. Van Hemert, a Surgeon near to her, and he immediately attends. Pain in the groin being complained of, a careful examination was made, but no signs of fracture were detected. The limb was rotated, flexed, and extended; but then it was not shortened, nor was the foot everted. There was no crepitus at the neck of the thigh-bone. The patient was a thin, spare woman, and, had fracture existed, there surely could have been no difficulty in detecting it. The chief seat of pain was at the knee, which was somewhat bruised. The treatment consisted in leeching, fomenting, rest, and position. To relieve the patient's anxiety, the limb was examined carefully on several occasions during five weeks, but no fracture could be detected. On making his visit on the morning of November 15, Mr. Van Hemert was informed by his patient "that, on turning in bed during the night, her thigh gave a sudden crack, which greatly alarmed her." The limb was examined, and found to be shortened; the foot was everted. On extension and rotation being made, crepitus was distinctly perceived at the neck of the thigh-bone. The limb was placed in a proper splint, but the patient was restless, and undid the bandage. Four days afterwards another Surgeon was called in, and Mr. Van Hemert summarily dismissed. This Surgeon, Mr. Crookes, called to his aid Mr. Beaney, and these gentlemen, on November 22, having placed the patient under chloroform, found (they say) crepitus distinctly at the neck of the bone, and that "the thigh could not be brought to its full length owing to ligamentous or other adventitious union." On this assumption—for it is merely an assumption, as we shall presently show—an action was brought against Mr. Van Hemert, and damages to a considerable amount awarded the plaintiff. On the trial the Medical evidence was, as usual, we regret to say, antagonistic, but the preponderance was in favour of the fracture having occurred at the time Mr. Van Hemert detected it on November 15. The Judge, however, summed up directly against the defendant, and in complete ignorance of the nature of the injury, and apparently ignoring the fact that there were no signs of fracture before November 15, and full proofs of it afterwards, assumed that Mr. Van Hemert had not exercised ordinary skill in his diagnosis, and consequently that his treatment was improper, and from that improper treatment the plaintiff had become a cripple for life. We contend that Mr. Van Hemert has been the subject of a great injustice. But what are we to say to the Surgeons who gave evidence against him? How are we to reconcile their evidence, which went to show that the fracture was produced on October 11, in opposition to the sworn testimony that at that time, and for five weeks after, no sign whatever of fracture existed? Under any circumstances they were certainly not justified in being so positive that the fracture had existed from the time of the accident. The very opinion they expressed at first is contradictory of this; for it is evident—as the *Australian Medical Gazette* says—"If there had been crepitation *felt* or *heard*, then was the fracture recent, and not of old standing. If there was adhesion in a false joint, there could have been no crepitation." We agree with our contemporary on the necessity of a judge in the trial of such cases having an assessor "to note the difference between Surgical facts and Surgeons' opinions." The judge was himself bewildered, and in his summing up must have sadly bewildered the jury. We regret that a motion for a new trial was refused, and that Mr. Van Hemert has met with "a denial of justice."

We have not gone into the minutiæ of the case, as the main facts lie in a nutshell. We regret to state that Mr. Van Hemert had offended Mr. Crookes, in declining to meet him in consultation; and that Mr. Crookes (to use his own words) said that "he deserved to be well punished for his impudence and ignorance"—impudence in declining to meet Mr. Crookes, ignorance in the manner he had conducted the case. We are glad to perceive that the Medical Practitioners of Victoria have taken up the case with spirit and energy. A very influential meeting was held early in December, "not only," as the chairman said, "to express its disapproval of the proceedings at the trial, but also the refusal of a second trial, by which the injustice of the first might be remedied." Mr. Rudall, one of the speakers, said—

"Without going into details, he would say there were two reasons which prevented his understanding why the verdict had been given in this case. The fact was, that whatever the treatment, whether good, bad, or indifferent, it was distinctly proved that the patient had not chosen to follow it—what the Doctor had done being undone by her—which of itself ought to be a sufficient bar to damages. The second reason was, that however the case was treated, it was highly improbable that the result would have been in any way different."

We append the following resolutions, which were carried unanimously:—

"1. That this meeting is of opinion that the verdict in the case of Turner *v.* Van Hemert, lately tried in the Supreme Court, was unjust, inasmuch as there was no evidence to prove the existence of fracture at the time of the accident, and was in contradiction to the scientific evidence given, which proves that an intracapsular fracture of the neck of the thigh-bone has remained undetected for weeks by the most skilful and careful Surgeons, and that it was highly improbable that under any treatment the case would have terminated less unfavourably for the patient.

"2. That the Medical Profession of Victoria herein expresses its sympathy with Mr. Van Hemert on account of the action lately brought against him by Mrs. Turner, and pledges itself to effect his reimbursement of the expenses to which he has been subjected in that action."

A committee was formed for the purpose of carrying out this last resolution. We understand the costs, with damages, exceed £700.

THE ARMY ESTIMATES.

The Army Estimates for the ensuing year do not at first glance contain much matter of interest to Medical officers. We observe, as the most important item, that, as mentioned by us a few weeks ago, an increase in the administrative staff at Aldershot by the appointment of a Deputy Inspector-General of Hospitals, is included among the detail of charges for the Medical Department at home. The number of Deputy Inspector-Generalcies at home is thus increased from thirteen to fourteen; the number for colonial service (seven) remains as for the preceding year. The numbers of Inspector-Generalcies for home and colonial service also remain unchanged, being five and one respectively. A Surgeon-Major or Surgeon is reduced from the strength of the Medical staff at Malta, and an Assistant-Surgeon is reduced from Gibraltar. In the changes for the Military Medical School at Netley the number of probationers provided for is thirty, being a decrease of thirty-six as compared with the previous year; and instead of a mess allowance of £300 to the Medical staff, and of £134 for wages and clothing of mess waiters, etc., the latter charge appears at £250, and the former is transformed into a mess allowance of £66 to Medical candidates, being a decrease of £118 for the mess establishment. A charge of £400 appears in this part of the estimates as allowance to the examiners of candidates for the Medical service. A Governor and Assistant-Commandant continue to appear among the charges for the Hospital at Netley, and the female nurses are increased from six to eight.

In his opening speech on the Army Estimates, Mr. Cardwell mentioned impending changes in the constitution of the Army Hospital Corps, according to a scheme which had been submitted to him. The only apparent indication of this in the present estimates is, that instead of only one officer, styled quartermaster and adjutant, being provided for this corps, an addition of eleven officers, styled deputy superintendents, is about to be made, and the allowances for quartermaster and adjutant are transformed into those for a superintendent. Besides this important increase of officers, we believe that the plan submitted to Mr. Cardwell includes the abolition of the rank of apothecaries to the forces, and the transference of the thirteen officers now employed in that grade, and of the two captains of orderlies (of whom one is now on the strength of the Hospital establishments at Netley and Woolwich respectively), to the commissioned ranks of the Army Hospital Corps as deputy superintendents. The number of officers in the Army Hospital Corps will thus be 27, and of non-commissioned officers and men, including the 336 added in the present estimates, will be 1336. In the designations of the non-commissioned officers and rank and file, the following changes are observed:—Instead of sergeants-major, colour-sergeants, sergeants, corporals, second corporals, and privates, the respective ranks will be chief stewards, stewards, assistant-stewards, first, second, and third-class orderlies, the pay to each rank being the same as that given under the previous titles.

The duties of the newly organised Army Hospital Corps will include those formerly performed by the apothecaries and their subordinates, as also the care of the sick and the maintenance of cleanliness and discipline in the Hospitals, and will in all respects be performed under the directions of the Medical officers. In time of peace a corps of the number and nature described may naturally be expected to be sufficient for all ordinary duties, but would necessarily require considerable amplification during war, and should be considered only as the nucleus of skilled *personnel*, to be supplemented by a proportion of men from each regiment trained as bearers for the wounded and as ordinary Hospital orderlies.

Touching the prospects of promotion of Medical officers themselves, Mr. Cardwell's speech on the estimates appears to us to include indirectly an element of hope as to the probability of an impetus being given to that hitherto sluggishly moving stream. But to derive the full benefit for Medical officers which the new army scheme affords, it will be necessary that it should, as regards Medical officers, be manipulated in a special manner. The sixty-six head-quarter districts, which Mr. Cardwell mentioned as essential items in his scheme, should include on the staff of each a due proportion of Medical officers, of whom the senior, on account of the important duties of recruiting, invaliding, and general Medical care devolving on him, should be of some standing in the service. Now, it appears to us that if the Medical officers in charge of each of the new districts were to be Surgeons-Major, or Surgeons of twenty, or two- or three-and-twenty years' service, appointed for five years, on the understanding that at the expiration of that time they were to retire on even the present rate of £1 per diem after twenty-five years' service, numbers would be very glad of the chance. Thus would be introduced a continual removal of men—foregoing, indeed, further promotion to the higher ranks, but who, in compensation, would have attained in the districts in which they had served a "local habitation and a name," which would be likely to procure a Professional position most useful to those who might desire, on retiring, to enter into private or consulting practice. If, in extension of Mr. Cardwell's scheme of localisation of corps, the Medical officers appointed to these head-quarter districts be selected for particular stations, other claims being equal, on the grounds of early connexion with that part of the country through family or educational ties, a strong additional inducement would be supplied for Medical officers to retire on the terms which we have sketched out.

We believe there is some foundation for the report that the unification scheme for the Army Medical Department is soon again likely to come to light. The chief feature of the plan will, of course, be the abolition of the regimental system. The title of Assistant-Surgeon will be discontinued; the two classes of executive officers will be Surgeons and Surgeons-Major. Of the latter there will be two classes—viz., those under twenty years' service ranking as Majors, and those of more than twenty years' service ranking as Lieutenant-Colonels. The grades in the inspecting ranks will be Surgeon-General and Deputy Surgeon-General, in lieu of the present term Inspector- and Deputy Inspector-General of Hospitals. We believe that in carrying out the details of the new system the present regimental Medical officers will find that all vested interests will be carefully protected.

THE WEEK.

TOPICS OF THE DAY.

Sir William Gull has been gazetted Physician-in-Ordinary to His Royal Highness the Prince of Wales.

The President of the Medical Society, Dr. Andrew Clark, gives a *conversazione* at the Hanover-square Rooms on Tuesday, March 5.

The Adulteration of Food and Drugs Bill, brought in by Messrs. Muntz, Whitwell, and Dixon, proposes to inflict a penalty of not more than £50 on any person wilfully mixing, or causing to be admixed, "with any article of food or drink, any injurious or poisonous material to adulterate the same for sale;" and on any person wilfully mixing, or causing to be admixed, "any ingredient or material with any drug to adulterate the same for sale." This penalty is for the first offence. A second offence is to be regarded as a misdemeanour, and is punishable with six months' imprisonment and hard labour. The penalty for knowingly selling food or drink mixed with injurious material, or for selling as pure adulterated food, drink, or drugs, on conviction, is not to exceed £20, with costs. The justice will have the power of publishing the vendor's name, address, and offence. The Bill proposes that the Pharmacy Act of 1868, and the Adulteration of Food Act (23 and 24 Vic., cap. 84), shall be incorporated in the present measure. Power is given for the appointment of analysts, who shall possess competent Medical, chemical, and microscopical knowledge, in London and the counties. Inspectors of nuisances may submit to them suspected articles for analysis, and they are to report quarterly to the local authorities. Persons purchasing articles of food may require them to be analysed, on payment of a sum not less than one shilling nor more than five shillings.

A circular has been issued by the President of the Poor-law Medical Officers' Association, in which he calls attention to the fact that Mr. Stansfeld has adopted in his Sanitary Bill some of the main features of the Association programme. The Government scheme not being as yet entirely unfolded, the Association are wisely exhorted by the President not in any way to relax their efforts for a reform of the system of Poor-law Medical Relief.

ROYAL COLLEGE OF SURGEONS.

At a special meeting of the Council of this institution on the 29th ult., Mr. Henry Spencer Smith, F.R.C.S., of Queen Anne-street, was elected a member of the Court of Examiners in the vacancy occasioned by the retirement of Mr. Edward Cock, late President of the College. Mr. Smith, who is the Senior Surgeon to, and Lecturer on Clinical Surgery in, St. Mary's Hospital, received his Medical education at the St. Bartholomew's, Paris, and Berlin Hospitals. He is the translator of Schwann's "Microscopic Researches on the Structure and Growth of Animals and Plants," and other contributions on anatomical and physiological subjects published in the *Medical Gazette*. He was also Secretary to the Government Contagious Diseases Commission, of which Mr. F. C. Skey, C.B., F.R.S., was Chairman.

PROFESSORSHIP OF CHEMISTRY, QUEEN'S COLLEGE, CORK.

Dr. Maxwell Simpson, F.R.S., has been elected as successor to the late Dr. Blyth in the chair of Chemistry, Queen's College, Cork. Dr. Simpson has been for some time resident in London, and is well known in scientific circles for his attainments, particularly in the abstruse subject of organic chemistry. However numerous and eminent the competitors for the Professorship may have been, we are certain that the authorities of the Queen's University in Ireland could not have obtained a better man for the important post to which Dr. Simpson has been appointed.

BILL FOR THE SUPPRESSION OF ADULTERATION.

Considering the extent to which the adulteration of food, drink, and drugs is carried, it is clear that nothing but a most stringent Act of Parliament can effect a satisfactory remedy. Notwithstanding the agitation which has been going on for a long time past on the subject, we fear that the wholesome provisions of Mr. Muntz's Bill will not meet with the unqualified favour of the House of Commons. The interests involved are so vast, it is certain that in some quarters it will meet with strenuous opposition. It is, however, a step in the right direction, and the discussion upon it must be attended with beneficial consequences. It provides for the appointment of analysts in London by the City Commissioners of Sewers and the vestries and district boards; in the country by the courts of quarter-sessions and town councils. Inspectors of nuisances and other officers appointed by the local authorities may procure articles suspected to be adulterated, and submit them to the public analyst, and upon obtaining a certificate from him stating that the articles are adulterated, may obtain a summons against the seller or adulterator. The penalty for adulterating articles of food, drink, or drugs is to be for the first offence a fine not exceeding £50 and costs, and for a second offence imprisonment with hard labour for not more than six months. The penalty for selling adulterated articles is £20, with costs, and after a second offence the magistrates may cause the offender's name and address to be published at his own expense in such way as may appear to them desirable. The costs of executing the Act are to be paid out of the local rates.

ST. PANCRAS.—DR. HILL'S APPOINTMENT.

When the Board of Guardians of St. Pancras appointed Dr. Hill as Medical Officer of the Infirmary, it was arranged by the contract that he should hand over to the guardians all fees which he should receive for post-mortem examinations and for giving evidence before the coroner. In noticing this arrangement a fortnight since we expressed our opinion that such a compact was illegal. That opinion, we believe, was not entertained by any of our contemporaries. It, however, appears that we were correct. At the meeting last week of the Board of Guardians a letter from the Local Government Board to the guardians was read, which stated—

"With respect to the proposal that the Medical Officer shall be required to account to the guardians for all fees for post-mortem examinations and coroners' inquests, I am directed to point out that the guardians cannot legally impose such a condition, as the law which enables coroners to summon Medical witnesses, and provides for the fees to be paid to them, depends on a statute totally different from that which provides for the salaries of officers of boards of guardians, and one over which neither this Board nor the guardians have any control." Hereupon it was remarked that Dr. Hill had expressed his willingness to hand over the inquest fees, provided he was paid the £225 per annum; and it was resolved that the salary of Dr. Hill be £225 per annum, on consideration that he provides an assistant, and places the fees received by him for post-mortem examinations and inquests in the hands of the treasurer to the guardians. The Board of Guardians of St. Pancras, true to their instincts and their antecedents, as might have been anticipated, ignore the authority of the Local Board; but will they be permitted, in opposition to an Act of Parliament, to carry out their resolution? It is to be hoped not. If carried out, it is easy to perceive that it would operate most injuriously on the office of coroner.

THE NAVAL SICK FUND.

The Naval Sick Fund will be abolished on board her Majesty's ships on March 31 next. We are glad to learn that the abolition of the fund will not deprive our sick seamen of the customary extra comforts and necessaries, but that the Surgeons will still have the means of providing them, being by the new regulations provided with an allowance for "contingencies."

THE PLAGUE IN PERSIA.

Dr. Castaldi, the Ottoman sanitary delegate attached to the Turkish Embassy at Teheran, has recently, by order of the Ottoman Sanitary Department, inquired into the nature of a disease which had broken out in Persian Kurdistan, reported to be the plague. Dr. Castaldi has sent in his report, and in his opinion there cannot be any doubt as to the character of the disease. The malady is characterised by a strong fever, accompanied with typhus symptoms, with the appearance of buboes under the arms, in the groin, and in the neck, of carbuncles on various parts of the body, and of spots scattered over the whole surface of the skin. It carries the sufferer off quickly, attacking several houses in one place, and several persons in the same family, and transmits itself from an infected place to a healthy one. "Such a malady," says Dr. Castaldi, "cannot be anything but the Eastern plague of former times." According to the report, it was during the last winter that the plague appeared in the district of Mukry, in the Aderbidjau, in two villages situated at a short distance from each other, and called Djoumouchau and Arbaouuz. These two small villages have been completely depopulated, only seven or eight persons having been spared by the scourge. Dr. Castaldi feels at a loss to point out the causes which have produced the epidemic, for the district is the healthiest in all Persia.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The following is the proposed balloting-list for the election of Officers and other Members of Council of the Royal Medical and Chirurgical Society of London, for the year 1872-73:—*President:* Thomas Blizard Curling, F.R.S. *Vice-Presidents:* Alexander Patrick Stewart, M.D.; Andrew Whyte Barclay, M.D.; George Critchett; John Abernethy Kingdon. *Treasurers:* Thomas Graham Balfour, M.D., F.R.S.; John Birkett. *Secretaries:* Edmund Symes Thompson, M.D.; Thomas Smith. *Librarians:* Thomas King Chambers, M.D.; Charles Brooke, F.R.S. *Other Members of Council:* Edward Ballard, M.D.; Robert Greenhalgh, M.D.; George Harley, M.D., F.R.S.; Hugh James Sanderson, M.D.; Walter Hayle Walshe, M.D.; William Oliver Chalk; George Green Gascoyen; John Whitaker Hulke, F.R.S.; Edwin Saunders; William Scovell Savory, F.R.S. It is said that some of the leading general Practitioners have expressed dissatisfaction at the absence of any of their body from the above list; but it does not appear that any gentlemen who contribute to the transactions or the practical working of the Society are overlooked.

BILE-PIGMENTS AND JAUNDICE.

Heynsius and Campbell have made an elaborate spectroscopic examination of bile, bile-pigments, the products of the oxidation of these latter, and of the urine in cases of diseased liver (Pflüger's "Arch. f. Physiol.," iv., p. 497). They fully described two pigments that have not been previously examined in detail—bilicyanin and choletelin. Bilicyanin was not detected in urine, either normal or pathological, though the authors appear to think that it is, perhaps, a constituent of normal urine, and that it has been confounded by previous observers with indican. Choletelin was found in specimens of dark urine from patients suffering from affections of the liver, though not in normal urine. As choletelin, though a derivative of ordinary bile-pigment by oxidation, does not give the well-known play of colours with strong nitric acid, the occasional failure of the nitric acid (Gmelin's) test when applied to the urine in cases of indubitable jaundice appears to be accounted for. Heynsius and Campbell's monograph is enriched by a copious account of everything of value that has been done with reference to the colouring matter of the bile by previous experimenters, and contains some terse and valuable notes on sources of error in spectroscopy.

THE NEW CONTAGIOUS DISEASES PREVENTION BILL.

The Contagious Diseases Prevention Bill, prepared by Mr. Secretary Bruce and Mr. Winterbotham, is divided into four parts—1, Relating to Prostitutes and Contagious Diseases; 2, to the Protection of Women; 3, to Disorderly Houses; 4, Supplemental, relating to Legal Proceedings, Definitions, etc. Clause 2 of Part 1 provides that—

"Every common prostitute who in any public street, public highway, or place of public resort, solicits or importunes persons for the purpose of prostitution, shall be deemed to behave in an indecent manner within the meaning of the recited provision of the Vagrant Act, 1824."

Clause 3 enacts that when a common prostitute is in prison, "and is found, at the expiration of the term of her imprisonment, to be affected by contagious disease, she shall be liable to be detained in the infirmary of the prison, or to be removed to a certified Hospital, in manner provided by this Act. Where a woman so liable is found within seven days before the expiration of the term of her imprisonment to be affected with contagious disease, the fact of her being so affected shall be reported by the gaoler of the prison to a justice of the peace, and such justice, unless he is satisfied that she is not so affected, or that she intends to go to some asylum or other like institution, or otherwise to cease to be a common prostitute, shall order her to be detained in the infirmary of the prison for such period as is provided by this Act, and the woman shall be detained in such prison infirmary accordingly. Where a woman is ordered under this section to be detained in the infirmary of the prison, a justice of the peace may, by the same or any subsequent order, direct her to be removed to any certified Hospital the managers of which are willing to receive her; and any person authorised in this behalf by such order may remove such woman to the certified Hospital named in the order, and the woman may be detained in such Hospital for such period as is provided by this Act.

"Nothing in this section shall authorise an examination of a common prostitute in any prison further or other than may be made in the case of any other prisoner. Due notice of the said report shall be given to the woman, and she shall, if she so desire, be heard by the justice before any order is made."

We will not proceed with an analysis of the Act at present, but will observe that Clause 2 seems too feeble for its purpose, and some of the provisions of Clause 3 are feeble and illogical into the bargain—insufficient to protect the public and to insure the relief of the unhappy women.

THE LATE PROFESSOR DAY.

At the last meeting of the Council of the St. Andrews Medical Graduates' Association, it was resolved to raise a fund for securing a life annuity for Mrs. Day, the widow of the late Emeritus Professor of St. Andrews, whose obituary has so recently appeared in our columns. Dr. Day did excellent work in promoting Medical education. By his writings he greatly advanced Medical literature and science, and in the cultivation of general science he was a successful labourer, some of the best papers in "Chambers' Encyclopædia" being from his hand. We feel sure, therefore, that the effort to secure an annuity to Mrs. Day will meet with support from the scientific public generally, as well as from the Profession.

CALCUTTA MEDICAL COLLEGE.

Surgeon H. C. Cuticliffe, F.R.C.S., now officiating as Professor of Anatomy in the Calcutta Medical College, and *ex officio* Second Surgeon of the College Hospital, has been appointed to officiate as Professor of Surgery in the Calcutta Medical College, and first Surgeon of the Hospital, during the absence of Dr. Fayrer, C.S.I., who has obtained leave of absence to England on furlough for two years.

GRATUITY TO A MEDICAL OFFICER.

Dr. Lilley has been awarded, by the Kensington Board of Guardians, a gratuity of £21 for services rendered during the epidemic of small-pox.

SMALL-POX JOTTINGS.

Two cases of small-pox were reported last week in the Bromsgrove Workhouse Infirmary.——Small-pox has made its appearance in one of Mr. Muller's Orphan-houses in Ashley Down, Bristol. A teacher was first taken ill with suppressed small-pox, and she died, and since that time there have been about twenty cases amongst children in the same house, two of whom have died.——Small-pox has broken out again, and is making many victims, at Valparaiso.——Three fresh cases of small-pox were reported last week to the St. Martin's-in-the-Fields Vestry. Of two sent to the Hampstead Hospital, one had died.——Two deaths occurred in Bermondsey in the last fortnight from the disease.——Mr. Roberts, in his report to the Wakefield Board of Guardians last week, states—"During the past fortnight I have had to report two cases of small-pox—one, a woman aged 24, who, although never vaccinated, obstinately refused to be (she has since taken small-pox, and I understand that she is now dying in the Fever Hospital); the other, a woman aged 30, is an extremely mild case. She had been properly vaccinated. There is an unvaccinated adult in Hudson's-square. I have received a parish order for the child, who is feverish. The mother refuses to be vaccinated. There are several instances where such persons have taken small-pox and almost invariably died."——In Aberdeen small-pox remains in precisely the same condition as shown in our last report. The return issued last week is as follows:—Total number of cases admitted to the Hospital, 91; number of patients now in Hospital, 58; total discharged recovered, 22; total dead, 14.——The Medical Officer of Health for the Hackney District reports that small-pox was diminishing both in number of cases and intensity of the disease, the number of deaths occurring therefrom in the past fortnight being only 6, against 17 in the preceding month, and only 4 fresh cases having been brought under notice, against 13 in the previous fortnight.——Two new cases of small-pox were reported during the last fortnight in the Whitechapel district.——Three deaths occurred from small-pox in Halifax in the fortnight ending Tuesday last.——It was reported to the Sheffield Board of Guardians that there were last week twenty-eight small-pox cases in the workhouse.——Dr. Aldis reports only one case this week in St. George's, Hanover-square.

WATER-SUPPLY TO THE METROPOLIS.

There seem to be good grounds for believing that at length a supply of pure water will be given to the metropolis. It is, however, incumbent upon all those interested in the question not to be too sanguine in this expectation; still it is satisfactory to quote the following from the proceedings of Parliament:—

"The President of the Board of Trade, in reply to an inquiry whether it was intended to take any steps under the Metropolis Water Acts (1852-72), in consequence of the polluted state of the water recently supplied by some of the water companies, said a water commissioner had been appointed to examine, at least once a month, whether the water of the various companies is fit for use, and to make a report respecting it both before it undergoes the process of filtration and before it passes into distribution. He is also instructed to make a special report when there is any necessity for such a step. In the case to which the question refers he was asked to make a special report, which I have just received. After the consideration of that report I shall be able to decide whether there should be any further inquiry into the water-supply of the particular companies referred to."

WATER-SUPPLY OF GIBRALTAR.

We regret to hear that the hopes of a plentiful and suitable water-supply for Gibraltar, based upon the late discovery of springs on the north front of the rock, are doomed to disappointment. A correspondent informs us that latterly, while the quantity of water continues abundant, it has become so impregnated with salts as to be quite unsuitable for drinking purposes.

MR. LIEBREICH AT THE ROYAL INSTITUTION.

On Friday evening, March 8, Mr. Liebreich, the Ophthalmologist whom the siege of Paris sent to seek refuge in London, will deliver a discourse at the Royal Institution, in Albemarle-street. He will treat of the effect of certain faults of vision in painting, with especial reference to Turner and Mulready. In the one case, we believe, there was in the painter's eye some want of optical adjustment, in the other a yellow discoloration of the lens; and the speaker will show how certain peculiarities in their paintings will be lessened or removed if the spectator look through a lens which shall reproduce the defect in the eye of the painter.

THE CAPTURED MEDICAL STUDENTS AT HAVANA.

A correspondent writes that—"The Medical students now undergoing imprisonment for the desecration of the tomb of Caslanon were removed about a fortnight ago from the city prison, La Punta (the scene of the November massacre), to the villa of the Captain-General, the Molivo del Rey, on the Pasco de Jacon. It is satisfactory to know that the students are in excellent health and spirits. Food and cigars are brought daily to them by their friends. They wear the ordinary prison dress, with their hair closely cut, and with their legs chained. The most melancholy sight was to see the fathers and mothers, brothers, and sisters of these boys, who were sitting on rough benches under the verandah, distracted with grief and anxiety, and whose minds must surely give way; in fact, some have already done so under their cruel infliction. It is considered in Havana that the removal of the students from the common prison is the first step towards their ultimate release."

A NECESSARY PRECAUTION.

Comparisons, it is said, are odious, but they may sometimes be made with advantage. The Paddington Sanitary Committee seem actuated by a different spirit from that of their brethren of St. Pancras. We are gratified to announce that at their last meeting they passed the following resolution:—"That no person suffering a contagious disease be removed from one private house to another in the vestry ambulance-car unless the Medical Officer or one of the inspectors of nuisances be consulted as to the propriety of such removal, and also as to the sanitary condition of the premises to which it is proposed to remove such person."

THE HEALTH OF PARIS.

The sanitary state of Paris has much improved under the mild spring weather prevailing. The deaths of the week ending February 16 were only 747, against 821 the week before. The diminished numbers of fatal cases are chiefly small-pox, 2; chicken-pox or measles, 6; scarlatina, 3; typhus fever, 20, etc. The average number of deaths in Paris is 45,000. The numbers actually registered in 1870 were 73,581, while in 1871 they amounted to the startling total of 99,945—twice the ordinary death-rate.

CONSUMPTION IN LONDON.

The quarterly report of the Hospital for Consumption and Diseases of the Chest, Brompton, presented to the meeting last week, states that the Committee had inspected several properties, but had not found any site suitable for the purpose of a convalescent Hospital. The number of patients admitted since November 23 was 242; discharged, many greatly benefited, 217; died, 25; new out-patient cases, 3105.

LAWS RELATING TO THE PUBLIC HEALTH.

The Bill of Sir Selwyn-Ibbetson for the better execution of the above laws makes provisions for the appointment of a Health Committee in rural parishes. It is to consist of not less than two persons, and will be entrusted with certain power

and duties as to sewer and nuisance authorities. If the Committee fail to fulfil their duties the Bill provides for the Local Government Board appointing their successors.

FROM ABROAD.—THE NEW GERMAN UNIVERSITY AT STRASBURG—EPIDEMIC VARIOLA AT GENEVA.

Dr. Herootт, in a recent article in the *Gazette Médicale*, furnishes some account of the new German University about being established at Strasburg. Every attempt is being made, he says, to attract Professors of the highest eminence, it being given them to understand that Strasburg will prove their surest road to arrive at Berlin, while their payment is to be very large. It is just stated that Professor Gusserow, of Zurich, has accepted the chair of obstetries at Strasburg, and that his salary is to be 15,000 fr. This, in comparison with the salaries of the Professors in Germany, is an enormous sum, their emoluments being derived from two sources—a moderate fixed amount contributed by the State, and the fees derived from the students. These last for some of the Professors reach a large sum, amounting to more than 25,000 fr. per annum, forming the recompense of their talent and industry, and for their zeal in the instruction of the students. This, says Dr. Hergott, is a just arrangement, for it seems to be contrary to all justice that a somnolent Professor without auditors and one who has the power of attracting crowds should receive the same remuneration. Positive Germany has long since utilised this stimulus for its Professorial body, rendering fixed payments very low, but leaving a wide scope for eventual emoluments. In France, on the contrary, the fixed payments constitute the main resource, while any eventual payments, in the shape of fees for examinations, are of little account. In Germany, again, the fixed payment varies at different universities, and for different Professors at the same university. In the case of an important Professor it sometimes undergoes increase in order to retain his services when he has received a call from another university where the payment is higher. This is a system of competition well calculated to maintain the ardour for work and zeal for instruction. In France the Professor is immobilised in the same university, and receives no assurance of competent remuneration for sustained labours; consequently, for him, the obtaining his chair constitutes his grand effort, and all serious work too often terminates with the successful *concours*. In Germany the future lies widely open to the Professor, while in France it is most limited, the obstinacy with which the Paris Faculty has always closed its doors to all provincial notabilities being well known.

The Professors to whom chairs at Strasburg have been offered have, before accepting these, repaired to that city in order to ascertain whether all the appliances for teaching were suitable, and some of these, it is said, have declined the appointments because they did not seem to them to be so. However, it is said that such will be amply provided, in the shape of laboratories, libraries, etc.; but some difficulty lies in the way with respect to clinical teaching. It seems that the Civil Hospital at Strasburg has been founded, and is maintained, by private benevolence, its income of about 750,000 francs not being derived in any degree from the State or municipality. By a voluntary arrangement it has allowed this Hospital, consisting of about 1000 beds, to be employed by the Faculty for clinical instruction; but not regarding this arrangement as a contract, the Committee in whose hands the management of the Hospital rests believes that it has full power to withdraw this concession should it consider it as injurious to the patients confided to its care. It does not question the ability of the new Professors to treat the patients, but looks to the great antipathy which the patients feel at being obliged to receive their services in place of those of Medical officers who have long enjoyed their confidence and esteem. The question remains at present in suspense, but in the event of the Committee persisting in their refusal, the Germans will have to resort to the military Hospital which now belongs to them, or to establish a new clinical Hospital.

The chairs that have thus far been filled up are those of Anatomy, by Professor Waldeyer; Physiological Chemistry, by Hoppe-Seyler, from Tübingen; Pathological Anatomy, by Recklinghausen, from Wurzburg; Materia Medica, by Schmeidberg; Surgery, by Lücke, from Bern; Gynæcology, by Gusserow, from Zurich; Internal Pathology, by Leyden, from Königsberg; Psychiatry, by Kraft-Ebing; and Ophthalmology, by Laquear, from Lyons. The "rump" of the French Medical Faculty which remains at Strasburg will, it is stated, complete the education of their former students, but has entered into no definitive relations with the new University. The bulk of this Faculty, which has vacated its chairs, does not seem hitherto to have met with a very encouraging reception in France, beyond having received warm praise for the sacrifices which it has made.

In a recent treatise by Dr. Revilliod, Senior Physician to the Cantonal Hospital at Geneva, giving an account of the small-pox epidemic of 1870-71, as observed in that Hospital, he states that this has been the most intense epidemic observed at Geneva during the present century. It has furnished twice as many cases as that of 1850, although it lasted a shorter time. It especially affected persons who had resided in the canton for less than twelve years, the natives of the canton only supplying 23 per cent. of the cases. While a first vaccination has often proved insufficient, revaccination has proved its protective power in an absolute manner. This epidemic has presented as a special characteristic the frequency of anomalous forms—and especially the hæmorrhagic form—which have proved the principal cause of the mortality. Such anomalies have also characterised many other diseases during the prevalence of the epidemic. Many of the cases of hæmorrhagic variola pursued a benign course. In 1858 hæmorrhagic variola represented 7 per cent. of the cases of variola, and there were only 20 per cent. of recoveries; while in 1870-71 there were 17 per cent. of cases, and 16·40 per cent. of recoveries. The eruptions known as "rash" were only met with exceptionally. M. Revilliod calls for the enactment of a law for compulsory vaccination, such as prevails in England, Germany, and the Canton de Vaud.

PARLIAMENTARY.—VACCINATION—CONTAGIOUS DISEASES.

In the House of Lords, on Thursday, February 22,

Lord Buckhurst's motion for a Select Committee to inquire into the working of the Vaccination Acts was withdrawn.

In the House of Commons, on Friday,

Sir J. Trelawney gave notice that on Thursday next he would move that there be a call of the House on March 21 when the Contagious Diseases Acts Bill is to be discussed.

The St. Olave's Board of Guardians have resolved to erect a new Infirmary in their district.

New and Safe Mode of administering Chloroform.—Mr. Crooke states that all the advantages of chloroform are much more speedily obtained and its dangers avoided by causing the patient to "begin to inhale (from thirty to sixty drops of chloroform having been poured first on a handkerchief) very gently for about two seconds, and then to proceed to inhale with the utmost energy, forcing inspiration to the fullest extent of the chest's capacity.—*Australian Medical Gazette*, November.

Vaccinations in Milan During 1871.—The total number of these performed under the auspices of the Milan municipality ("animal" vaccine virus being employed) between January 1 and December 31, 1871, was 17,069. Of these 1504 were vaccinations of children, of which 1270 were successful in their results, 4 were spurious, 35 failed, and 195 were not verified. There were also 15,565 adults revaccinated, the results being successful in 5039, spurious in 435, and unsuccessful in 3814, while in 6277 they were not verified. Among these 15,655 revaccinations there were only 68 cases in which variola in a mild form or varioloid appeared.—*Gazetta Medica Lombardia*, February 17.

ACCIDENTS FROM THE ROYAL PROCESSION.

It was hardly possible that such a concourse of people as assembled to see the Royal Procession and illumination on Tuesday could come together and separate without accident. Even now, when the affair has passed over, and we reflect on the vast multitudes who were assembled, we are thankful that more serious results did not attend the tremendous crush along the Strand, Fleet-street, and Ludgate-hill. Only one death actually occurred in the streets, though many were severely injured, and some were almost given up who, nevertheless, have recovered, having been only stunned. The perils of our streets were on Tuesday at their acme. What with scaffoldings giving way and people falling from them, or small boys and other articles falling on the heads of people below, no little danger of a somewhat unusual kind attended the procession. Then there were kicks from horses, falls, blows, and the like, not unfrequently followed up by a cab passing over the unfortunate individual, so that if he escaped with his life he was fortunate. The most curious accident we have heard of, however, happened to a man in the crowd, who, getting weary of waiting, and almost hopeless of seeing anything worth seeing, was seized with a yawning fit and dislocated his jaw. He went to Charing-cross Hospital, and Mr. Slack, the House-Surgeon, replaced it by the help of his thumbs.

The accidents began almost as early as the procession. Some boys had climbed trees in the Park, and several had got on the branch of an elm. This tree is at all times a dangerous one to trust to. In warm weather its limbs will sometimes drop off without warning; and here, though in early spring, the branch gave way, and two boys were very badly hurt—one had his thigh fractured, the other was stunned and badly bruised about the head. Both were taken to the Westminster Hospital, and the one with fractured thigh still remains there doing well. A woman, who was injured by the fall of a scaffolding near Marlborough House, was also admitted with a fractured leg. A variety of other slight forms of accidents were treated during the day and evening, but none of great importance.

The brunt of the work fell on Charing-cross and King's College Hospitals, for the crowd was greater in that vicinity than elsewhere. At the former Hospital four patients were treated for accidents received by falls from scaffolds—such as sprained ankles; two at least for kicks from horses; six run over by cabs; and as many as eight-and-twenty for falls in the crowd, cut heads, bruises, etc. One patient had a fractured leg, another got fractured ribs, another fracture of a metatarsal bone. One elbow and one shoulder were dislocated, besides the jaw already mentioned. Two old women were admitted suffering from concussion, and one man, who was really very ill, was suffering from concussion and a severe scalp wound. Two had bruised backs and heads; but all now are fairly well and likely to recover. Those who were able to leave were removed to their homes; those too ill were taken into the Hospital, where, however, only one or two are now left.

At King's College Hospital, about four-and-twenty patients were treated for wounds, bruises, etc., who were afterwards well enough to go away. These had nothing greatly the matter with them. Two women were admitted—one with Pott's fracture of the leg, and another with numerous bruises, especially of the face. There is now unfortunately in the Hospital a policeman almost comatose and quite pulseless, who we fear will not survive; so far as can be made out he has no bones fractured. Two are dead; one a child, aged nine weeks, from Spitalfields, who was suffocated, and one a poor man who was crushed in the street. His age was 48. On these no doubt an inquest will be held at once.

MEETING OF THE GENERAL MEDICAL COUNCIL.

Held at 32, Soho-square.

First Day—Thursday, February 29.

The 1872 Session of our Medical Parliament commenced at two o'clock on Thursday last, the President, Dr. Paget, in the chair. The Members present were—Dr. Bennett, Mr. Quain, Dr. Humphry, Dr. Embleton, Dr. Storrar, Dr. Alexander Wood, Dr. Andrew Wood, Dr. Fleming, Dr. Macrobin, Dr. Thomson, Dr. A. Smith, Mr. Hargrave, Dr. Leet, Dr. Apjohn, Sir D. Corrigan, Dr. Quain, Dr. Sharpey, Sir W. Gull, Dr. Parkes, Dr. Stokes, and Dr. Francis Hawkins (Registrar).

On the introduction of Dr. Parkes, Edward Bradford, Esq., was received by the President into the Council as the representative of the Apothecaries' Society of London.

The President said he was sorry to announce that Dr. Christison had written to say he was unable to attend the meeting of the Council in consequence of the state of his health. His letter also referred to the business of the Society, and if the necessary permission (which had been telegraphed for) were given, he (the President) would read it.

The President's opening address was as follows:—I need only say a word or two to you at this meeting, because there will be plenty of discussion upon the principal subjects which are about to be brought before us. In the first place, let me say that I am sorry we are called together at a season of the year which is very inconvenient to many of us—(hear, hear)—but you are aware you are called together to-day in accordance with your own order, made on July 10 last, that a meeting of the General Council should be held early in 1872 to receive the proposals of the Bodies for Conjoint Examination, and to consider whether any steps should be taken to carry out the resolutions of the Council in favour of such combinations. It has occurred to me—and only occurred to me this morning, a few hours ago—that it would be a matter of courtesy to our new member, who can scarcely be expected to be conversant with all the minutes of our Council, to give some idea of what has been, or attempted to be, done in the Council and by the Council on this, the principal subject which we have met to discuss at this meeting. I beg you will excuse me if I do this imperfectly, and I beg you will correct me if I do it inexactly, for the reason I have mentioned—that I have not had time to consider the matter to make quite sure of my perfect accuracy in what I am about to say. Of course I shall confine myself to a mere statement. The subject has been before the Council several times before. I need not go further back than the report of a committee that was appointed in 1868. That was an important committee in every sense, particularly in its number and in the authority of the members composing it. There were amongst them many persons to whose opinions we all attach the greatest weight and importance. Mr. Syme was the chairman, and the other members of the committee were Mr. Cæsar Hawkins, Dr. Acland, Dr. Alexander Wood, Dr. Allen Thomson, Dr. Aquila Smith, Mr. Hargrave, Dr. Apjohn, Dr. Sharpey, Dr. Parkes, Dr. Christison, and Dr. Stokes. That committee worked hard, did a great deal, made numerous inquiries, and made a final report in the following year (1869). From that report, which is a very long one, I will quote only some of the concluding passages. In volume vii., page 92, of our Minutes, you will find what I am about to read from the report of this numerous and able committee:—"One of the greatest evils at the present moment is the inequality of these examinations for the licence. This inequality of the test of efficiency is the more unfortunate as every licence confirms in the right to practise everywhere. The case of the examination of one licensing body tends to depress the standard of the examination in all the rest. Visitations of examinations, doubtless, partly remedy this state of things; but to completely remove it a bolder course is necessary. The time has now arrived when, leaving to the Universities and Corporations full liberty to deal as they please with their honorary distinctions and degrees, the Medical Council should endeavour to effect such combinations of the

Licensing Bodies included in Schedule (A) as may form a Conjoint Examining Board for each division of the kingdom, before which every person who desires a licence to practise should appear, and by which he should be examined on all subjects. Any higher degrees he may wish to take, which may come afterwards, should be optional. This plan is one which the Council has often approached and has recommended in principle. We feel sure that the examinations for licences will never be made satisfactory without it, and, therefore, that it is for the public good to enforce it without delay. Considering, also, the extent to which the Colleges of Surgeons and Physicians have already combined in England and Scotland, we cannot apprehend any insuperable difficulty in carrying out this object. To enter into the details of such an arrangement of Conjoint Examining Boards would lead us beyond the scope of the inquiry entrusted to us. The notice of the point has to a great extent grown out of the subject, and we trust the Council will appoint another committee to consider and report how the examinations for licences in the three kingdoms can be thus provided for, and then apply, if necessary, for Parliamentary powers to carry the recommendations into effect." Then, towards the close of the report (p. 94), after recommending that a fresh committee should be appointed, they add—"This committee should also have power to enter into the other matters noticed in the report, especially into the possibility of forming Conjoint Examining Boards before which every student shall appear to entitle him to receive a licence to practise." This report is signed by Dr. Andrew Wood, Chairman. Mr. Syme was the original chairman of the committee, but he ceased to be so when he left the Council.

Sir Dominic Corrigan: Would it not be well to notice that the report was not adopted?

The President: This report was a very long one, and Sir Dominic Corrigan is quite right (I am obliged to him for calling my attention to it) in saying it was not adopted; and I believe it was never proposed that it should be adopted. But I have been informed by a member of the committee that the report, including the words that I have now read, was adopted by this numerous and influential committee unanimously. I may also remark that this report was adopted by gentlemen who were perfectly well aware how much the Council had accomplished by means of the visitation of examinations of the nineteen Licensing Bodies, and how much more was likely to be accomplished. I will now refer to some resolutions with which all of you here, except, possibly, our new member, are quite familiar—the resolutions which were passed on February 26 and 28, 1870, by the Council itself, by a very large majority.

"That this Council is of opinion that a Joint Examining Board should be formed in each of the three divisions of the kingdom; and that every person who desires to be registered under any of the qualifications recognised in Schedule (A) to the Medical Act shall be required, previously to such registration, to appear before one of these Boards, and be examined on all the subjects which may be deemed advisable by the Medical Council; the rights and privileges of the Universities and Corporations being left, in all other respects, the same as at present."

That was followed two days later by another resolution—

"That in accordance with the foregoing resolution the Universities and Medical Corporations established in each division of the United Kingdom shall be requested to concert a scheme for the constitution and regulation of a Conjoint Examining Board for that part of the kingdom to which they belong, and shall, on or before June 1, 1870, transmit such scheme to the consideration of the General Medical Council."

You will see at once, therefore, that if those resolutions of February, 1870, had been carried out, we should in June, 1870, have had before us the very task that we have before us at this present meeting. The reason that that was not done you all know well. It was in 1870, subsequent to the February meeting, that the Government introduced its Bill for amending the Medical Act. In that Bill it was proposed to make compulsory upon the Universities and the Medical Corporations, in Schedule (A) of the Medical Act, a scheme for Conjoint Examinations, and that Bill gives to the Medical Council the power of drawing up a scheme itself if the "Medical authorities," as they are termed, in any one division of the kingdom failed to do so. If the Medical authorities failed in proposing a satisfactory scheme for a Conjoint Examination in any division of the kingdom, it was put in the power of the Medical Council, and, indeed, made incumbent on the Medical Council, to propose a scheme itself; and that scheme, if approved by the Privy Council, would have become compulsory on the Medical authorities of that division of the kingdom. This Bill, as you will also remember, was very carefully considered and discussed by the Medical Council, and the Bill, including the provisions to which I have alluded, was adopted and approved by the Medical Council by a large majority. It did not, however, pass through Parliament, and did not become law, and therefore the Medical Council has no power whatever of compelling the Licensing Bodies to adopt, or imposing upon them, any course whatever. The only power under which Conjoint Examinations can be formed is the power given in the 19th clause of the Medical Act; and I will read this section, because it is, and must be, the basis of all that we do on this important matter during the present meeting. It is as follows:—"Any two or more of the Colleges and Bodies in the United Kingdom mentioned in Schedule (A) to this Act may, with the sanction and under the directions of the General Council, unite or co-operate in conducting the examinations required for the qualifications to be held under this Act." You see that that section of the Medical Act merely gives a permissive power to the Medical Corporations, and that the powers of the Medical Council in this matter are very limited indeed—as limited as they are generally in the other sections of that Act. Well, now we come to quite recent times—the last meeting of the Medical Council in July last. On that occasion the Medical Council came to an almost unanimous—I may call it a unanimous—resolution, because no member voted against it—

"That a letter be addressed to each Licensing Body, transmitting a copy of the resolution of the Council of February 26, 1870, and a copy of the resolution of February 28, 1870, on the formation of Conjoint Examining Boards, and urging that arrangements for the formation of such Boards should be undertaken without delay, and should be communicated to the President of this Council before the close of the present year."

In accordance with that a letter was addressed, as you know, by the Registrar to all the different Licensing Bodies. Answers have been received from nearly all of them, and yesterday the Executive Committee, before meeting, ordered that all that had been then received should be put into proof, so as to be as soon as possible in the hands of the members of the Council. Their great length has prevented their being in your hands sooner. They are printed in the programme of to-day. I do not think there is anything else to be said. I have purposely confined myself to a mere statement of facts, in the first place, and would avoid altogether expressing any opinion on the matter. Not that I do not hold any opinion—I hold a very strong one indeed upon this question—but I think opinions had better be reserved for discussion, and probably they will be expressed by other members of the Council far better than I can express them. You will observe that the power given under that 19th section is merely a power of combination of Licensing Bodies to make their examinations conjointly; but what is aimed at in these various resolutions which we have come to in the Medical Council is something more than that. It is not only that these examinations should be held conjointly, but that there should be no separate examinations—that we should, at all events, remove that blot from the existing Medical system; a blot which is almost perpetuated by the Act of 1858, because that Act, in one of its sections, required the Medical Council to put on its Register the name of any man who should bring up a diploma issued by any one of the nineteen Licensing Bodies. Now, such diploma may be one exclusively of Surgery, or it may be one exclusively of Medicine—granted, in the one case or in the other, after an examination exclusively Surgical, or after an examination exclusively Medical; and so, whether the Medical Council will it or not, the men can put their names on the Register, and become legally qualified Medical Practitioners, and practise (for there is no means of preventing them) both Medicine and Surgery, although they may have given a proof of their competency to practise only one or only the other. What the Medical Council has aimed at in these various resolutions is not merely to join examinations together, but finally and entirely to remove that blot from the existing system; and this we can only obtain either by an unaided Medical Act or by some such schemes as we shall have before us during this meeting of the Council.

The Business, Finance, and Registration of Medical Students Committees of last year were then unanimously re-elected.

[We shall continue the report of the day's proceedings in our next number.]

REVIEWS.

A Treatise on Hæmophilia (sometimes called the Hereditary Hæmorrhagic Diathesis). By J. Wickham Lego, M.D., Casualty Physician to St. Bartholomew's Hospital. London: H. K. Lewis. Pp. 158.

This is a book which, in times not long gone by, would have been looked upon as of the highest type of excellence, and had bestowed on it the emphatic title of "learned"; but in these restless times, when authority is almost held in contempt, and every man seems inclined to judge for himself, we fear it is hardly likely to meet with a just appreciation. Nevertheless, we are of those who hold such books useful—nay, more, as highly honourable to their authors. We are constantly having the value and importance of original work thrust down our throats. Its value is incontestable, doubtless, when it is valuable; but it must be remembered that there is such a thing as good work and bad work. It is not everyone who can look down the tube of a microscope who has the gift of seeing, and interpreting what he sees aright. If we reflect on the enormous numbers of false facts floating about in our Medical knowledge, the result of imperfect or incorrect observation, we may well be thankful to a man who takes the trouble to use his brains in reducing incongruous observations to order—in short, to put pith and marrow into a spiritless collection of data.

It may seem that we are unnecessarily taking the author's part in thus apologising for his work, but we seek rather to assert for all such treatises a proper place—a place which is not now accorded them, especially by those critics whose own facts are about the most questionable things in their published and authenticated productions. The number of scholarly Physicians is none too large, and we, for our own part, are glad to see a work which plainly indicates scholarly acquirements in its author.

The subject of Dr. Legg's memoir is obscure, and the material available for its elucidation scanty. In point of fact, the condition has been more frequently accepted as an untoward circumstance in the history of the patient than been the subject of special inquiry. The cases recorded by Dr. Legg himself are not free from imperfection—for, indeed, to make them perfect is not possible. Nevertheless, Dr. Legg's memoir is an exceedingly interesting one. The author has been at great pains with his subject, and he may be pronounced both ingenuous and ingenious: of which the former characteristic is not always the most prominent in Medical writings. The subject is hardly likely to attract general attention; but should anyone be driven by the exigencies of practice to make a special study of the subject, we can cordially commend Dr. Legg's work for his perusal.

Cancerous and other Intra-thoracic Growths, their Natural History and Diagnosis. Being the Substance of the Lumleian Lectures delivered before the Royal College of Physicians of London. By J. Risdon Bennett, M.D., Fellow, Senior Censor, and Representative of the College in the General Medical Council; Consulting Physician to St. Thomas's Hospital, etc. London J. and A. Churchill. Pp. 189.

This very unpretentious work is really a most valuable contribution to a most difficult and intricate subject. The University of London is justly believed to exact a very high qualifying standard from its M.D.s, and these men usually afterwards attain to eminence. At the last examination a short clear history of a mediastinal tumour was given for comment. Yet, such is the obscurity of the subject, only one man came to a right conclusion on the subject.

In this volume Dr. Bennett gives the history of certain very interesting cases, one of them as yet comparatively rare—viz., a case of lymphadenoma of the mediastinum. These semi-malignant growths have not yet been perfectly studied, but the account of the case given here, and of the pathological appearances, may be taken as typical. Dr. Bennett founds his observations mainly on cases which have occurred in his own practice, for he has had the fortune, good or bad, to encounter about thirty of them altogether. Certain of these, with others occurring in the practice of his colleagues, and some from the Pathological *Transactions*, he has tabulated—thirty-nine in all—and from them has deduced very valuable conclusions. For clinical purposes he classifies his cases into three divisions:

1. Those in which cancerous deposits, usually in masses varying in size, are disseminated through the lungs, having more or less analogy with disseminated tubercle, but without inducing any change in the intervening lung.

2. Those in which the cancerous growth is more localised, attains for the most part to a greater size, and leads to important ulterior changes—such as ulceration and gangrene.

3. Mediastinal or other tumours, inducing pressure on the tubes, vessels, and nerves, with all its important and very various consequences.

Though hardly a book to appeal to the bulk of the Profession, we cordially commend it to those who aim at a more correct knowledge of thoracic disease and pathology.

Worms: a Series of Lectures on Practical Helminthology. Delivered at the Medical College of the Middlesex Hospital. By T. Spencer Cobbold, M.D., F.R.S., etc. London: J. and A. Churchill. Pp. 178.

Certain of these lectures appeared in our columns, and are now republished along with others for the first time laid before the public. Dr. Cobbold claims for himself, and claims most justly, that he has done something to advance a scientific knowledge of our unbidden internal guests. He is particularly, we think, entitled to claim credit for the general recognition of the tænia mediocanellata as a frequent human parasite in this country, and its association with measly beef and mutton. We are most happy to acknowledge the services of Dr. Cobbold in furthering our knowledge of scientific as well as practical helminthology, but in the present treatise it is the latter aspect of the subject which mainly invites attention. In respect of the value of this short treatise to the Practitioner, we are most happy to say of it that it is good, reliable, and withal exceedingly interesting. The study of parasites is at first sight very repugnant; but the strange metamorphoses they undergo, and the very various effects to which they give rise, are more wonderful than an Eastern fable. These aspects of the study are mainly dwelt upon in the work of Küchenmeister, translated for the Old Sydenham Society, and in Dr. Cobbold's great work on "Entozoa." but to the Practitioner the main thing is to cure the patient and prevent a recurrence of the disease. As an aid in so doing he will find this little work by Dr. Cobbold much more valuable than other more pretentious teachers. As a successful Practitioner Dr. Cobbold has acquired quite as great a reputation as for being a man of science, and the stores of his knowledge acquired by practice are here laid open to the public.

Lectures on the Clinical Uses of Electricity. Delivered in University College Hospital. By J. Russell Reynolds, M.D., F.R.S., Professor of the Principles and Practice of Medicine in University College, Physician to University College Hospital, etc. London: J. and A. Churchill. Pp. 112.

These lectures, republished from the columns of a contemporary, may be safely recommended as a guide to those who wish to use electricity aright, and who are ignorant of the general principles requisite for their guidance. For this special and somewhat limited purpose it would be difficult to say too much in the book's favour. Undoubtedly something of the kind was wanted; for many men who desire to know more of the subject than is given in text-books on Medicine have no time to consult the large and valuable works available in our language. Hitherto, as far as we can remember, no small and handy treatise on the subject has been of a character such as to warrant us speaking of it in terms of commendation.

FOREIGN AND COLONIAL CORRESPONDENCE.

WEST INDIES.

Trinidad, February 7, 1872.

The Small-pox Epidemic in Trinidad.

The epidemic has reached a most alarming height. In Port of Spain the number of new cases reported last week to the Health Department amounted to 425; this, it is well known, falls far short of the real number, as every effort is made by the bulk of the population to conceal cases, in order to avoid the measures of disinfection and cleansing ordered by the Board of Health. What makes the alarm greater is the occurrence of many cases among the wealthier people, and these, too, of the worst kind—that, is petechial and hæmorrhagic cases. The number of these is very large; at the Small-pox Hospital the proportion of them to the total number admitted has been 17 per cent. Every one, so far, has proved fatal. The Hospital admissions do not fairly represent the disease as it is seen outside, as we

rarely have slight cases; but there is no doubt that the proportion of petechial and hæmorrhagic cases far exceeds that of any former epidemic. This is not to be wondered at. Port of Spain has increased in population from 18,880 in 1861 to 23,561 in 1871, with hardly any increase in the area built upon. The town is shut in by a range of steep hills on the east, by the sea on the south and part of the west, by a large park called the Queen's Park on the north, and it can only enlarge, and that to a very limited extent, on the north-west. Every scrap of land that can be built on is built on, and now the constant influx of people from the neighbouring islands is provided for by cramming them into little wooden huts, already overcrowded. In a tropical climate the inconvenience of an overcrowded house is not felt in the day, especially by the negroes, who live almost entirely out of doors; and at night they shrink so from the slightest cold, that the more closely they are packed the better they like it. Add to this overcrowding the grossest neglect on the part of the municipal body of the cleansing of streets and yards, so that the street-gutters are full of festering, stinking black mud almost continually, and an easy explanation is to be found of the prevalence of the worst forms of small-pox. But there are other causes than these at work. Fresh meat is very dear—none can be had at less than 1s. a pound; mutton is 1s. 3d. a pound—the consequence is, that the great mass of the population live on fish, fresh or salt. Unfortunately, salt fish is even cheaper than fresh, and is relished better. A dish of rice or plantain and salt fish is, therefore, the mainstay of a large proportion of the inhabitants. Even respectable people who have lived a long time in the colonies take to eating salt fish at least once a day. Now, salt fish is always slightly putrid—there is no such thing as salt fish perfectly free from taint; and the water in which it is boiled is a most disgusting liquid. There is no doubt that the daily use of a salted and tainted food like this predisposes the blood to that malignant form of small-pox which prevails now so extensively.

The registered deaths in Port of Spain during the month of January amounted to 564, which is at the rate of 287 per 1000 of the population annually. There is no doubt, however, that the actual number of deaths much exceeds this figure, as it is the practice of many persons to bury children, and even adults, occasionally out in the "bush."

Among the more intelligent classes a universal gloom prevails, and, indeed, there is a sort of panic-terror upon them. The slightest illness alarms them, and there is no doubt that many cases of mild small-pox have been fatal from nothing but fright. I had one such case in the Small-pox Hospital. A man died from mere fright on the fifth day of a comparatively slight eruption. Rum was given constantly, but it never roused his pulse or his spirits. During the last week the depression of spirits among the newly admitted patients has been remarkable. For the first time since the commencement of the epidemic I have had to give alcoholic stimulants at the earliest stage of the eruption. One man had a pulse of 50; another, admitted the same day, had one of 60; another 72. All were suffering from fear.

Business is almost at a standstill; the only thing thought about or talked about is the epidemic. The worst of it is that no one can get away; all the steamers refuse to take passengers, and there are, as yet, but very few sailing vessels for Europe.

The conduct of the Government in not taking effectual measures at first to isolate the cases and stamp out the epidemic is most severely criticised. It is very easy to cast blame after the event, but the Governor followed the advice of the majority of the Medical members of the Board of Health. The only one who urged vigorous measures was the late Medical Officer of Health, your correspondent, and as he was not supported by the other members of the Board, his plans were not adopted.

The number of new cases reported in Port of Spain last week was 425. There have been reported about 2500 in all, but this is much below the real number. The disease is spreading fast in the country districts.

GENERAL CORRESPONDENCE.

PENSIONS FOR POOR-LAW OFFICERS.

LETTER FROM MR. W. ELLIOTT PORTER.

[To the Editor of the Medical Times and Gazette.]

SIR,—I endorse all Mr. J. Colville, in your issue of the 17th, said on the subject of pensions for Poor-law Medical Officers; and permit me to add I think it would be for the good of the service and the public, particularly in rural districts, if the Medical officers retiring on Government pensions were retained for ten years as referees for their successors. A Medical staff would thus be given to the service and the public that would be both efficient and complete. Of this I am certain, if the duties of Poor-law Medical Officers are to be properly performed, they must be entrusted to men under, and not over, fifty years of age. I am, &c.,

W. ELLIOTT PORTER.

(Fifteen years in the Poor-law Medical Service.)

Lindfield, February.

THE SMALL-POX ANALOGIES OF CHOLERA.

LETTER FROM DR. E. FULHAM TURNER.

[To the Editor of the Medical Times and Gazette.]

SIR,—It would have been vastly more edifying to the Professional public if Dr. George Johnson had addressed himself to the question raised in my last letter as well as poked fun at my pugnacious propensities and bad logic. The question raised was, Whether the eruption of small-pox is essentially curative? I ventured to say No! and argued that if Dr. Johnson's position were true, it would follow that the bowel discharges of typhoid, the mulberry rash of typhus, the eruption and sorethroat of scarlet fever, and the pharyngeal infiltrations of diphtheria were also essentially curative; and, therefore, to be encouraged and promoted. I hardly thought it would have been necessary to explain to Dr. Johnson the reason why the good people of the fourteenth century—John of Gaddesden and others—used these red-hot remedies in the treatment of their variolous patients. They did not do it for the purpose (though that was one unfortunate result) of compelling them to rebreathe an atmosphere loaded with their own poisonous emanations, but in order to force out through the skin the morbid matter existing in the blood. Now, Dr. Johnson virtually says that their theory of elimination was correct, but that their mode of carrying it out was bad and induced worse evils, as no doubt it did.

But, I repeat that the majority of us do not believe in the elimination theory at all, and I for one am curious to know how it is applied by Dr. Johnson in the treatment of small-pox and kindred diseases produced by the introduction into the system of a specific poison. We know his practice in the case of cholera, and are anxious to know whether he tries to sweat out, or purge out, or pump out, the poison of small-pox, scarlet fever, etc., or *what* he tries to do with it.

As the revelation of my name is a matter of perfect indifference to me, I beg to subscribe myself,

Yours, &c., E. FULHAM TURNER, M.B. Lond.

Upper Clapton, February 26.

ON THE ASPECTS OF LAW AND MEDICINE IN RELATION TO OUR CRIMINAL JURISPRUDENCE, WITH SPECIAL REFERENCE TO CASES OF INSANITY.

LETTER FROM MR. FRAS. WORKMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am directed to forward to you for publication, should you think fit, the enclosed paper, which was read by Mr. May, Sen., our Surgical President, before the Reading Pathological Society on February 21.

A petition to the House of Commons, advocating the views dwelt upon in Mr. May's paper, has been since drawn up and signed on behalf of the Society, and I enclose a copy of it.

I am, &c., FRAS. WORKMAN,

Reading. Hon. Sec. Reading Pathological Society.

Public attention has been drawn to this important subject by the late trials of the Rev. Mr. Watson and Christiana Edmunds, the results of which I cannot but regard as a reproach to our legislation too intolerable to be longer sustained. The only plea of insanity accepted by the judges in criminal cases is the inability of the prisoner to distinguish right from wrong at the time when the crime was committed. The opinions of many learned psychologists are in direct antagonism to this legal dictum, and they declare it to be erroneous and inconsistent with our knowledge of the manifestations of unsound mind. This conflict of opinion has been so painfully developed in the trial, conviction, and subsequent reprieve of Miss Edmunds that public feeling has been shocked, and our laws have been brought into general disrespect, if not contempt. It is believed that many persons of unsound mind

retain the abstract knowledge of right and wrong, although the judgment and the power of controlling the will may be diminished or perverted, though not entirely lost. If this be true, it must result that every alleged criminal act should be held responsible to the law, extenuating circumstances being admitted under the plea of insanity, and punishment awarded according to the degree of proved mental aberration. To admit the contrary would be a direct encouragement to crime and dangerous to the public weal. Both law and Medicine are concerned in the solution of this important problem. Law deals with the applicability of the penal statutes, and Medicine, personified in the experienced Physician, must be the best exponent of psychological phenomena, since the structure and functions of man, and the physical and mental derangements to which he is subject, are the objects of the study and practice of his Professional life. When skilled in forensic investigations, who can be found better qualified to detect the crafty malingerer and to elucidate the truth?—now proving the offence to be the act of an unfortunate aberrate, and now only the culminating crime of a life of hardened villany. But to give due weight to the judgment of such a man, he must take an official position in the judicial inquiry. Trial by jury, so dearly cherished by Englishmen as the Palladium of our civil rights, is sorely taxed in cases of disputed insanity. If to define sanity and insanity be a puzzle to the most acute metaphysician, if to fix the boundary in many cases be simply impossible, is it reasonable to expect a jury composed of men of ordinary intelligence satisfactorily to dispose of cases involving subtle distinctions, and replete with doubts and difficulties even to the most accomplished Medical jurist? We need not wonder that Medical evidence is not always complimentary to our Profession, since all legally qualified Practitioners are not psychological experts; and from the nature of their Professional engagements and the absence of special training they cannot be, and yet they are called to give evidence and to express opinions for the guidance of juries on the issues of which hang life or death! At the trial of Miss Edmunds important Medical evidence in favour of her insanity was adduced, but it was overruled; the unhappy prisoner was convicted and condemned, and then submitted again to Medical inquiry, and ultimately reprieved. Surely this reproach to our jurisprudence cannot endure. I venture to ask the members of this Society to concur with me in asserting the time to have arrived when, in the name of justice and humanity, and for the honour and dignity of our Profession, we are called to urge the Legislature to investigate and revise our laws in relation to criminal jurisprudence, and specially with regard to cases of questionable sanity.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled.

The humble Petition of the Presidents, Vice-Presidents, and Members of the Reading Pathological Society sheweth—

That your petitioners are legally qualified Medical Practitioners, associated for the discussion of subjects relating to the Medical Profession.

That your petitioners are deeply impressed with the importance of the subject of insanity in relation to criminal jurisprudence, and are not satisfied with the present state of the laws in relation thereto.

That your petitioners are of opinion that, with a view to the elucidation of cases involving the plea of insanity, it is essential for the ends of justice that one or more Medical experts be appointed, who shall exercise *official functions* in judicial inquiries.

That your petitioners earnestly implore your Honourable House to take this subject into your serious consideration, with a view to the early revision of the law. And your petitioners, as in duty bound, will ever pray.

Richard Woodhouse, M.D., President of the Reading Pathological Society;
George May, F.R.C.S.Eng., President of the Reading Pathological Society;

and signed by both at the request and on behalf of the Society.

THE CURATIVE EFFECTS OF THE SMALL-POX ERUPTION.(?)

[To the Editor of the Medical Times and Gazette.]

Sir,—I was sorry to see the tone of annoyance in which Dr. George Johnson answered the letter of your correspondent "M.B." It really seems a pity that men so identify themselves with their opinions that it is as displeasing to them to have their opinions criticised as it might be if their personal character or private affairs were commented on. For my own part, I think that an opinion put forward publicly is public property, and open to comment from all quarters; and, as a friend of free discussion, I shall venture some comments on the doctrines of Dr. George Johnson, while expressing my sincere respect for his personal character.

The dictum for consideration is this—

"In the *treatment* of cholera and choleraic diarrhœa (which is, in fact, cholera in a mild form), the main principle to bear in mind is, that the discharges are as essentially curative as is the cutaneous eruption in small-pox."—(Dr. G. Johnson, *Medical Times and Gazette*, February 3, 1872, p. 126.)

This is the "main principle." It lies in small compass; and if this be annihilated, of course its value as a guide to treatment is also annihilated.

And annihilated it certainly is in the mind of anyone who watches by the bedside a case of *varioloid* or modified small-pox, or *variolæ sine eruptione*, or who reads an account of it in any impartial author; for here we have violent fever, heat ranging above 103°, intense cerebral and spinal irritation, with something like opisthotonos—all vanishing suddenly on the morning of the fifth day, with the occurrence of an eruption so insignificant that it has to be felt for in the hair: half a dozen tiny vesicles, some drying up, and becoming horny or chaffy.

As "M.B." justly observes, it is absurd to suppose that this is a cure by elimination; it is, on the contrary, an example of a disease cut short and aborted in the course of its phenomena. The eruption is not curative, but the disease is cut short—eruption and all.

If the eruption were curative, our "main principle" should be to bring it out, as our forefathers did. Sydenham, by his cooling treatment, abolished the old doctrine, which one is astonished to see revived two hundred years later, and applied to an utterly distinct disease.

I take down at hazard Aitken's "Science and Practice of Medicine," vol. i., p. 359. Respecting the treatment of small-pox, he says—"The main object, in the first instance, is to prevent, if possible, a copious eruption; for the severity and danger of the disorder may be measured in some degree by this. The vulgar belief that 'better out than in' does not apply in the case of small-pox."

February 27. I am, &c., S.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 13.

T. B. Curling, F.R.S., President, in the Chair.

Dr. W. H. Broadbent read a paper "On the Cerebral Mechanism of Thought and Speech." The objects of the paper were stated to be, by means of the light thrown upon cerebral physiology by cases of loss and derangement of speech, to construct a theory of the mechanism of thought and language, and to connect this with the facts of cerebral structure so far as known. Ten cases were related in the first place, of which the most interesting were—1. A case of right hemiplegia with loss of speech and writing. The hemiplegia temporary; the loss of speech permanent, except as to a few words mostly used in the expression of feeling; loss of writing absolute. She was, however, able to read; and displayed great energy and resource in recovering the control of her property, of which she had been deprived under the idea that she was imbecile. On post-mortem examination three years after the attack, two apoplectic cysts were found in the upper margin of the fissure of Sylvius of the left hemisphere: one in the posterior part of the third frontal convolution; another further back, the latter involving also some convolutions of the island of Reil. 2. A case of abscess in the left frontal lobe, not affecting the surface of the third convolution or the island of Reil, but involving the white substance of the third frontal gyrus deeply. The order in which the symptoms appeared was—slight paralysis of right face; then incipient loss of speech and writing; a few days later total loss of speech and writing, with right hemiplegia; subsequently partial recovery of speech. 7. A case of congenital aphasia without idiocy in a boy, aged 12, who understood all that was said, could be sent on errands, etc., could write his name, and could copy from printed into written

characters, but could not speak except to say "yes," "no," "father," and "mother"; indistinctly answered "kreiger kruger" to all questions; could not write the simplest word, such as "no," from dictation, or understand the simplest written question, but could write and understand figures. 8. A case in which an intelligent man, after head symptoms, completely lost the power of reading either printed or written characters, while he could write readily and correctly from dictation or spontaneously. His conversation was good and his vocabulary extensive, but at times he was at a loss for a name, and he was quite unable, when asked, to name the simplest and most familiar object presented to his notice. The loss of power to read was of course a part of this more general loss of power to name. He died from hæmorrhage into the left tempore-sphenoidal lobe, which penetrated into the ventricle. Two old hæmorrhages were discovered: one in the substance of the infra-marginal convolution of this lobe; another larger, which had apparently caused softening of the adjacent brain-substance, between the extremity of the fissure of Sylvius and the ventricle where the descending cornu is given off. The latter would involve most important fibres. The extent of softening could not be ascertained on account of the recent hæmorrhage into the same part. The 9th and 10th were cases in which, with derangement of speech in the 9th and absolute loss in the 10th, there was loss of comprehension of words, with ready interpretation of signs. The cases related, so far as they bear on the question, are all corroborative of the view which assigns a close functional relation with language to the left third frontal gyrus; and, as the result of his own observation and of examination of many cases published as exceptions, the author considers this relation to be absolutely established, not, however, in the sense of its being the seat of a faculty of language, but as an important link in the cell and fibre mechanism for speech, which mechanism may be interrupted at other points above or below, as well as at this particular node. The distinction established by Sanders, W. Ogle, Bastian, and others between amnesia and aphasia proper or ataxic aphasia implies lesion at different parts; and a further subdivision of amnesic cases may be made, Case 8 being used as an illustration. Here an object seen no longer evoked the appropriate name; the channel between the visual centre and the intellectual centre was interrupted. And if a similar interruption occur in the channel from the auditory centre to the intellectual centre, so that articulate sounds no longer revive the accustomed intellectual associations, the patient will, on the one hand, be incapable of understanding what is said to him, and, on the other, will have no check on his own utterances. The lesion will in a case of this kind be at a different spot from that which destroys the memory for words (amnesia) or the memory for the utterance of words (aphasia). The results of the author's careful examination into the course and distribution of the fibres in the cerebral hemispheres are, that the fibres radiating from the crus and central ganglia and the fibres of the corpus callosum are distributed almost exclusively to the convolutions of the longitudinal and Sylvian margins of the hemispheres, the intervening convolutions receiving no radiating or callosal fibres. These latter convolutions, which are thus withdrawn from immediate relation with the outer world, which are also those that are latest in order of development, and which make the difference between the human and quadrumanous brain, he considers will be those engaged in intellectual operations, receiving the raw material of thought from marginal convolutions at the summit of the sensory tract and employing in the expression of the volitional product of thought the marginal convolutions which are in fibrous connexion with the motor ganglia and tract. The theory of the mechanism of speech and thought is a modification of that of Dr. Bastian,(a) agreeing with it that the materials of thought are remembered impressions, and not remembered movements, and that there are definite cell-areas in the hemispherical cortex in which impressions are translated into perceptions, which may be called "perceptive centres," but differing from it in relegating to these perceptive centres, which will be situated in the marginal convolutions, only the rudimentary perceptive act, and in making the higher intellectual elaboration by which an idea is evolved the function of a new cell-area in some of the superadded convolutions upon which perceptions from various senses are converged, and in which they are combined or fused into a conception of which a word is made the symbol. A part of the general theory is an hypothesis as to the nervous change which is the concomitant of sensation, which is taken to be absorption of the force of the impinging impression and integration of matter in the cells concerned, which may be compared to the fixing of luminous vibrations by the green cells of plants. On this view, the seat of sensation would vary in different classes of animals, and at different periods in the development of the human intellect, gradually shifting upwards from the thalami to the marginal and superadded convolutions. Considering first the mechanism of speech, words may be regarded from two different aspects—firstly, as motor processes; and, secondly, as intellectual symbols. As movements, they will be represented by groups of cells in the corpora striata; and the grouping of the cells taking place under the guidance of the auditory sense, which is bilateral, will also be bilateral—that is, motor cell-groups representing articulate sounds will be formed in both corpora striata. As the left third frontal gyrus, however, is the outlet for intellectual expression, the sound groups in the left corpus striatum will take the lead in speech, and thus, though speech is not lost in lesion of this corpus striatum, the temporary embarrassment is greater and lasts longer than in lesion of this ganglion on the right side, till the way round is opened from the left third frontal gyrus to the right corpus striatum, which will probably be by the corpus callosum and right third frontal. As intellectual symbols, words are primarily revived auditory impressions, and are probably represented in the auditory perceptive centre by receptive cell-groups. The auditory perception of a given name will be associated with other perceptions, to which the object indicated gives origin, in the cell-area which constitutes the higher centre, and will come to stand for the resultant of these impressions generally. The way out from this higher centre is seen from pathological evidence to be the left third frontal gyrus. Words other than names are intellectual agents rather than intellectual symbols; are employed in mental action, not impressed upon the mind in association with visual and other perceptions. We can thus approximately understand how names may be forgotten while the framework of a sentence is readily uttered, or even a periphrasis invented. The action of the hemispheres is apparently necessarily bilateral as far as the formation of rudimentary perceptions, the marginal convolutions being symmetrically associated by the corpus callosum. The unilateral employment of the left hemisphere only becomes possible in the superadded convolutions, and the unilateral education of Broca and Moxon is a motor, or rather efferent, education only. The mechanism of thought is so far prefigured in that of language that a detailed exposition of it need not be recapitulated.

(a) *British Medical Journal*, May, 1869.

Mr. Power said that he wished to ask Dr. Broadbent one question, and that in order to make his meaning clear he would illustrate it by a diagram. An object, say a cube, was presented to a child; and the visual impression excited was communicated to the optic ganglia, by which it might be at once reflected downwards; but more commonly it was not reflected, but ascended to a higher centre. At the same time the name of the object was pronounced in the child's hearing, and the resulting auditory impression reached the auditory ganglion. If not there reflected, it likewise ascended to the higher centre. At the same time the child touched the object, and the tactile impression followed a course similar to that of the others. The three impressions, meeting in and combined by the higher centre, occasioned the formation of the complex idea of a cube, and this, operating downwards upon the muscles of articulation, led the child to say "cube." An arrest of this process on the sensory side of the combining centre produced amnesia; an arrest on the motor side of the combining centre produced aphasia. Where, in the whole, did Dr. Broadbent place the corpus striatum?

Dr. Broadbent replied that he placed the corpus striatum between the combining centre and the muscles of articulation, as the organ by which the former acted upon the latter.

Mr. John Wood inquired how far the method of teaching the deaf to speak by watching the lips of others would harmonise with Dr. Broadbent's views.

Mr. Savory accepted the distinction drawn by the author between language and words; but objected that, on the view propounded, the mechanical act of speech was seated in centres which were comparatively more developed in the lower animals than in man. If that were so, he should expect the faculty of speech to be widely diffused among the lower animals, instead of being limited to a few birds.

Dr. Wilks expressed his general assent to the views of the author. The acquirement of language was a complex process, and might be imperfect in the sense that some of its ordinary factors might be omitted. Thus it was quite possible to learn a foreign language by sight only, so as to read it by the eye with perfect comprehension, while yet ignorant of its sounds, and unable either to speak it or to understand it when spoken.

Dr. Broadbent, in reply, said that he had located the mechanical art of speech in the corpora striata, because he regarded these bodies as the centres of muscular movement generally. Mr. Savory was mistaken in supposing that they were comparatively more developed in the lower animals than in man. Their development, throughout the animal kingdom, followed very closely that of the cerebral hemispheres, and reached its highest point in the human species.

The meeting then adjourned, the President first announcing that the ordinary meeting for the 27th, the day of thanksgiving for the recovery of the Prince of Wales, would not be held.

THE PATHOLOGICAL SOCIETY.

Tuesday, February 20.

Mr. Hilton, F.R.C.S., President, in the Chair.

The President announced that the Council had come to the conclusion that the Society had now reached a period in its history when some generalisation might be deduced from its doings in the past. They would therefore now be at liberty to take up the discussion of any particular subject, or even an abstract discussion, provided some specimens or drawings were submitted to the Society. Any member might give notice of his intention to bring forward a subject, and the secretaries would set apart a portion of the time of the Society for the purpose.

The Morbid Growth Committee reported on Mr. Hutchinson's Tumour from the Leg. Although it had entered the substance of the muscles, it had not, strictly speaking, invaded these. It belonged to the division of round-celled sarcomata.

Dr. C. T. Williams brought before the Society a young man with a very marked Depression of the Lower Portion of the Sternum, so that at this point the antero-posterior measurement was only four inches and a half. The grandfather had been apparently in the same condition. The boy had weak lungs.

Dr. C. J. B. Williams said this malformation did not greatly interfere with the respiratory organs, provided it was not excessive. He alluded to the case of a captain in the navy who had such a malformation. After a time the heart and lungs became affected, and he died dropsical. He thought that chest affections aggravated the condition. Certain forms of gymnastics were the best remedy.

Dr. Murchison, alluding to a statement by Dr. C. T. Williams, that the liver was drawn up, said he would have thought it more likely to be displaced downwards; but Dr. Williams said it was drawn up.

Mr. W. Adams next exhibited a specimen of Mollitus Ossium for Dr. Dowse. It consisted of the upper half of the humerus. There the compact tissue was reduced in density and thickness, and the cancellous tissue was gelatinous. The thigh-bone was in an early stage of the same condition. They were removed from an old woman, aged 61, who had died eight days after fracturing a limb. The condition was only discovered after death. There was no history obtainable. (Referred to Dr. Duffin and Mr. Adams.)

Dr. Moxon exhibited a specimen of Miliary Tubercle, softening to Vomicæ, in a case of Acute Tuberculosis. Dr. Moxon said he believed this was the first specimen deliberately exhibited to the Society as tubercle of the lung. This, he supposed, must have one of two reasons—either that long ago everybody knew enough about tubercle, or that even now no one feels sure enough concerning it. He had looked back through the writings of many authorities to learn those proper characters of tubercle which appeared so long to have satisfied the members of the Society, but always he found there was the same supposition that tubercle was a matter of course; and thus far it appeared clear that everyone did know all about tubercle long ago. From this point of view the neglect of the subject by the Society was another proof of its pathological completeness, and yet there were some facts not quite in concord with so satisfactory an account of the matter. He specially alluded to three of these facts. Dr. Cayley had shown microscopic specimens of tubercle in the liver, etc.; Dr. Bastian had shown specimens to prove the histological identity of tubercle and early fibroid disease; and a committee, which had decided in favour of the tuberculous nature of some disease consequent on inoculation in the lower animals, had stated the histological grounds of their opinion. Now, he had found, on comparison of the characters described by these gentlemen, that they were very far from corresponding in the three cases. The characters relied on by the committee were a good deal fresh and unusual, and differed much from the descriptions by Dr. Cayley, and these from Dr. Bastian's; who, whilst saying on the one part that a tubercle had the same structure as early fibroid tissue, on the other part said he agreed with Virchow's description of tubercle as identical with lymph-gland tissue. From all this it would appear that there is yet a great deal that is very unsatisfactory in our knowledge of tubercle, and especially in its histology. In his examinations of tubercle he had found what Dr. Cayley described, and also he had seen the early fibroid-like appearances that Dr. Bastian represented; but he had never been able to make out anything like lymphatic gland. Of course, if by lymphatic gland you only mean cells with filamentous intercellular matter, then other cells with filamentous intercellular matter would be the same. But when we have regard to the characters of the cells and the consistence of the intercellular matter, or the distinctness of its filaments, then the thing becomes different. Everyone knew that a lymphatic gland is very complex, and that in the follicular tissue of the gland there are not merely cells and filaments, but that the filaments are themselves connected with stellate cells, from which the cells among the filaments appear to arise; further, these free cells are indistinguishable from pus corpuscles, and therefore cannot be very like tubercle corpuscles. If you brush out under water a section of gland and a section of tubercle, the first becomes a beautiful plexus of fine fibrils, whose meshes have been brushed empty; but the other all brushes away, and no filaments remain—neither, indeed, can any filaments be seen before brushing. Hence he thought Virchow's comparison with lymphatic gland most unsatisfactory, and thought that at present the naked-eye appearances, taken altogether, were of infinitely more consequence than the microscopic appearances. By "taken altogether," he meant that the position, arrangement, and distribution of the tubercles in question, along with their physical characters, are of important weight in settling the tuberculous nature of any case. In the case which he exhibited, it was specially to the naked-eye appearances that he would draw attention. The case was that of an industrious, steady young shoemaker, who, after suffering for five months with urinary troubles, which shortly were, in their order, hæmaturia, hydruria, dysuria, and pyuria, got chest symptoms and hectic, and sank within a few weeks of the appearance of these. Dr. Moxon found at post-mortem extensive scrofulous disease of the left kidney, bladder, and prostate, which were dreadfully ulcerated; but besides this there was general tuberculosis—minute tubercles crowding the liver, spleen, kidneys, and lungs. The state of the lung deserved settled attention, because its tubercles showed very beautifully a gradation from the condition of minute grains at the base of the lung up to little vomicæ of the size of peas in the apex, the intermediate gradations of enlargement and central softening, conclusively showing that the tubercles—large, intermediate, and small—were all of one nature, while the small ones and the scattered distribution of all showed their identity with the miliary tubercles so generally distributed in the body; thus the case offered an example of genuine miliary universal tubercle, running in the lung through the common course of softening into vomicæ. He would shortly state what he conceived to be the significance of the case, which had a very special point in opposition to the views now known as those of Niemeyer, which views are just now meeting with an extent of favourable acceptance which he thought they were not entitled to, but rather obtained through our natural kindliness toward foreign notions when they visit us. He understood that Niemeyer's views had no such weight in their own country. The view proper to Niemeyer is this, that the process which produces vomicæ in the lung is from the first inflammatory, and that tubercles in the form of little grey knots were apt to supervene secondarily. The point of the present case lies here, that the softening to vomicæ present in it was evidently a secondary process in, of, or about the tubercles. The chief ground for accepting Niemeyer's view lies in the fact that secondary miliary tuberculosis, or general tubercle, as it is called, almost invariably kills while the tubercles are small, so as to allow of Niemeyer's school regarding them as distinct from the softening deposits which produce vomicæ. In this case, however, life was prolonged until tubercles, which were unquestionably true tubercles in Niemeyer's sense, and secondary to scrofulous inflammation in another part, went on themselves to soften into vomicæ; thus proving that the subsequent history of Niemeyer's secondary tubercles is to go on and form those same cavities which his view assumes to be of a distinct nature when found in common phthisis. The case affords proof that the same vomicæ, which Niemeyer calls primary

catarrhal pneumonia (which he holds to be distinct in kind from tubercle, but liable to cause tubercle, as one thing causes another different thing), do arise from changes in or about secondary tubercle. Here we have a strong ground for holding to Laennec's belief—namely, that the vomicæ of common phthisis arise through the natural changes of tubercles. Of the essential truth of that view, Dr. Moxon entertained no doubt whatever. The specimen was accompanied by a full-sized painting of the lung, and charts of the microscopic appearances with high and low powers.

Dr. Green said, as to the grey granulation, it was not comparable to the whole lymph gland, but only to its follicular structure. He had found lymphoid corpuscles and a stroma in tubercle, but he was not certain but that the latter might be the result of the hardening process. He asked if the excavations at the apex were not due to the pneumonic process.

Dr. Powell said in this instance the disease was most advanced in the kidney. He took that to mean that the kidney was in a cheesy condition, to which the miliary tubercles were a subsequent development. He was disposed to think the breaking-down process pneumonic. One might often see a lung stuck full of grey granulations with no ulceration. He had often seen a stroma in tubercle.

Dr. Cayley considered that Dr. Moxon had overstated Dr. Niemeyer's views. He did not think the stroma of tubercle the same as that of lymphoid structures.

Dr. Moxon said he wanted to show the specimen simply as one of miliary phthisis.

Dr. C. J. B. Williams said Dr. Moxon's views corresponded with his own. The tubercle was often surrounded by a ring of inflamed tissue. Degeneration of tubercle and pneumonia went, he thought, hand in hand. The degeneration was fatty, going on to calcification. He thought the stroma accidental.

The specimen and subject were then referred to a committee consisting of Drs. Moxon, Sanderson, Powell, and Cayley, and Messrs. Hulke and Arnott, with a view to a report and discussion.

Dr. Peacock related a case of Intra-thoracic Tumour involving the Heart and Right Lung, and leading to Obliteration of the Descending Cava, as follows:—W. H. S., aged 27, was admitted into the Victoria-park Hospital, under the care of Dr. Peacock, on February 12, 1869. He ascribed the illness for which he was admitted to having taken cold from getting wet five weeks before. He then had severe cough and difficulty of breathing—increased on exertion—and after three weeks became incapable of following his employment. After resting for a week he returned to his engagement; but in another week he became worse, and applied for admission into the Hospital. On admission, his face was tumid and suffused, and the right side of the head and neck, and the corresponding portion of the chest and the right arm, were much swollen, and on the chest and neck there were large distended veins. There were also enlarged glands in each axilla, and a sinus discharging matter in the right axilla. The glands in the neck were also enlarged, and the right radial artery was less than the left. There was also evidence of effusion into the right side of the chest, and the lung was displaced towards the sternum in front. It was evident that there was a tumour pressing on the large veins in the neck, and on the parts within the right side of the chest, and, as there were suspicious cicatrices on the leg and he acknowledged having had syphilis, it was thought that the enlargement might be of a specific nature, and iodide of potassium was prescribed. There was, however, no improvement from the treatment, and as it produced depression it was discontinued. On March 18 the effusion in the pleural cavity had increased, and he had urgent dyspnœa. The chest was therefore tapped, and thirty ounces of fluid removed, with immediate relief. After a short time, however, he again became worse; his voice became quite abortive, and the fluid reaccumulated, so as to displace the heart towards the left axilla. On April 10, the dyspnœa being again very urgent, he was again tapped, but this time with little advantage, and he died shortly after. On examination, the cervical and mediastinal glands were found very much enlarged, and converted into a yellowish homogeneous-looking material. The right pleural cavity still contained some fluid, but the heart had returned to its natural position. The surface of the costal pleura was studded with small masses similar in appearance to the diseased glands, which varied in size from a pea or bean to a pigeon's egg. The lung was much compressed, but contained some small masses of the same kind in its substance. At the base of the heart, and extending from that situation up the bodies of the vertebræ behind the trachea, there was a large tumour, which had compressed and entirely obliterated the descending cava shortly above its entrance into the right auricle, and protruded forwards into the trachea, destroying the cartilages, but not penetrating the mucous membrane. The left recurrent vein entered into this mass, but could not be traced further. The masses also projected below into the cavity of the pericardium, and the surface of the heart was covered with small separate growths in the recent state, entirely resembling the other growths. The notes of the microscopic examination of the tumours at the time they were first removed from the body had been misplaced; but Dr. Payne, who had examined portions from the perforation, stated that they had entirely the character of lymphadenoma.

Dr. Peacock then related a case of very great Distension of the Colon from Habitual Constipation. The subject of this disease was a man, aged 30, admitted into St. Thomas's Hospital, under the care of Dr. Peacock, on May 11, 1871. Mr. J. P. Purvis, of Greenwich, by whom he was sent to the Hospital, stated that he had suffered from constipation and flatulence all his life, but especially since 1860, when he had an attack of obstruction of the bowels, which was only relieved after a large quantity of hardened fæces had been removed from the rectum. About six weeks before his death a similar attack occurred, and was again partially relieved by emptying the rectum and by enemata, but he continued to suffer at intervals in the same way, and the abdomen was at times enormously distended. When admitted into St. Thomas's Hospital the abdomen was very greatly enlarged, and was obscurely tympanitic on percussion everywhere except in the left iliac region, where there was entire dulness. The integuments in that situation, and also the scrotum and penis, were œdematous, and he was much prostrated. An attempt was made to afford him relief by aperients and enemata, but he died somewhat unexpectedly on the 14th, or three days after his admission. On examination, all the organs of the body were found healthy, except the lower part of the intestinal canal, which was excessively distended—indeed, the colon had in places a diameter of six or eight inches, and contained fifteen quarts of soft, greenish-coloured, fæculent matter. The lining membrane was in places ulcerated, but no source of obstruction existed anywhere. Dr. Peacock remarked that the case very closely resembled one of carcinomatous stricture of the sigmoid flexure, and it would almost necessarily have been supposed to be of that character had it not been that Mr. Purvis, in sending the patient into the Hospital, stated that when the bowels were freely relieved the distension almost entirely disappeared.

Dr. Moxon asked what was the degree of probability of the existence of stricture in an intestinal obstruction. He had never seen a fatal case without.

Mr. T. Smith had relieved a case in a child by lumbar colotomy where there was no obstruction beyond dilatation and a sudden turn of the gut.

In reply to Dr. C. T. Williams, Mr. Purvis said the man had from infancy been accustomed to use enemata for the relief of his bowels.

Mr. Holthouse said Abercrombie mentioned several cases of obstruction where there was no mechanical obstacle.

Mr. Arnott asked if colotomy would have been of any use here.

Mr. Croft referred to the case of a woman with umbilical hernia and symptoms supposed to be due to strangulation. She died of exhaustion, and the gut was found much distended below.

Mr. Hulke asked as to the condition of the muscular coat.

Mr. Weeden Cooke referred to Mr. Gay's case; and

Mr. Gay, mentioning the case of a boy who for three months never had his bowels moved, but who nevertheless ate heartily till he grew to an enormous size, also referred to another where the engorgement was confined to the sigmoid flexure.

Dr. Thorowgood referred to the case of a young man who suffered from obstinate constipation who was cured by a meat diet.

The President remarked that in rabbits the peristaltic action ceased at a distended portion of gut.

Dr. Nunneley exhibited a specimen of Congenital Occlusion of the Hepatic Ducts; and Mr. W. Adams the Skull of a Child showing Depressed Fracture.

The meeting then adjourned.

The military authorities at Strasburg have bought the Contades Beer Gardens, which are to be converted into a military Hospital.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, FEBRUARY 7.

Dr. J. BRAXTON HICKS, F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Dr. J. N. Agnew (Toronto), Dr. Bethune (Toronto), Dr. C. H. Carter, Dr. W. Hope, Mr. Albert Hunt, Dr. Kennedy (Toronto), Dr. Konrad (Pesth), Dr. J. G. Lock (Tenby), Mr. George Parr, Dr. W. L. Richardson (Boston), Mr. J. D. Shapland (Croydon), Dr. J. A. Temple (Toronto), and Dr. N. Tolotschinoff (Kieff).

Dr. MEADOWS exhibited a specimen of Cystic Disease of the Ovary, which illustrated, he thought, one of the possible modes of origin of the disease. The ovary was situated on one side of the cyst, and appeared to be almost, but not quite entire. It contained several Graafian follicles upon its free surface, and there were one or two of larger size at the attached border of the ovary, in close juxtaposition with the one large cyst; and Dr. Meadows expressed his belief that this cyst had resulted from an abortive attempt of a Graafian follicle to escape from the ovary at its attached border. Not being able to effect this, it had gone on developing into the cyst exhibited.

Dr. WILTSHIRE asked whether the possibility of the cyst having arisen from the parovarium had been entertained.

Dr. BANTOCK believed it to be a cyst of the parovarium. He believed that, when the disease originated in the ovary, multilocular disease is always found to a greater or less extent; while, in those cases where the disease begins in the parovarium, a single cyst with the ovary at the base is the most frequent, if not the invariable condition.

The PRESIDENT suggested that cysts originating in the parovarium would probably always be simple, and yet the Fallopian tube is found passing round the half of the tumour both in compound and single cysts. He thought the explanation given by Dr. Meadows the most probable one, at any rate in the compound cysts.

Dr. FRANCIS R. HOOG exhibited some photographs of Military Female Hospitals, and gave an interesting account of their internal arrangements. They are chiefly intended for cases of parturition. The Hospital at Woolwich is a building one storey high, consisting of two large wards with a smaller ward attached. In the parturition ward, adapted for ten patients, each patient has 1483 cubic feet of air. The average temperature in July was 69° Fahr., and in December 47° Fahr. Dr. Hogg believed the low temperature prevented the spread of scarlet fever and other fevers. Out of the last 278 cases, only one patient died.

Dr. J. J. PHILLIPS exhibited a cedar pencil, four inches long, one end of which was covered with a phosphatic calculus, extracted from the bladder of a girl, aged 18. The pencil had been passed into the vagina six months previously, and for four months gave rise to no inconvenience. Irritability of the bladder then supervened, and for six weeks there had been incontinence of urine. One end of the pencil was found in the vagina, the other in the bladder. It could not be extracted by the vagina, but was readily pushed into the bladder. The urethra was then rapidly dilated under chloroform, and the pencil extracted. The vesico-vaginal fistula closed, and on the fourth day there was no incontinence of urine. The patient made a good recovery.

Mr. JALLAND, of Horncastle, related a case of Vaginal Thrombus. There was no increase in size of the tumour during labour, and it offered no hindrance to the birth of the child. After expulsion of the placenta there was rapid enlargement of it, and spontaneous rupture. The patient became pulseless and unconscious. The hæmorrhage was controlled by pressure firmly applied with the fingers; and this was continued for half an hour. The patient gradually rallied, and got quite well.

Dr. J. J. PHILLIPS read a paper "On Retroflexion of the Uterus as a frequent Cause of Abortion." The paper commenced by a reference to the subject of retroversion of the gravid uterus so familiar to all obstetrical Practitioners, and associated with retention of urine about the third or fourth month of utero-gestation. This complication of pregnancy was well recognised in all the text-books on midwifery, and the influence of this displacement, if persistent, in inducing abortion was noticed by many writers. Dr. Tyler Smith, in a valuable paper on the etiology of retroversion of the gravid womb, had incidentally referred to the great tendency to abortion which existed in such cases. The object of the present paper, however, was to show that in a large number of cases repeated early abortions resulted from a *retroflected* state of the uterus, and that their true nature was very apt to be overlooked, as they were not necessarily accompanied by any severe or well-marked bladder symptoms. The author had made it a practice to ascertain whether any marked disorder of structure or of position of the uterus could be found to exist in cases of repeated abortions, and the result of this had been such as to convince him that, after making due allowance for various constitutional causes, a most important factor in the production of the abortions in many cases was retroflexion of the uterus; and that this should occupy a leading position in an enumeration of the local disorders tending to the premature expulsion of the ovum. He excluded from consideration those cases in which, in addition to the displacement, the uterus was bound down by perimetric adhesions. Various points in the clinical history of these cases were then noticed. Difficult micturition, present in many cases in a greater or less degree, was not a constant symptom. Frequently the uterus was excited to the expulsion of its contents before it had attained such a size as of necessity to interfere mechanically with the passage of the urine. The increased susceptibility of the retroflected pregnant uterus to concussion from sudden movements, the mechanical irritation to which it might be subjected, the straining in micturition and defæcation, and the irritation which the abnormal position of the uterus set up, seemed all to be very efficient excitors of uterine action. Further, the interference with the circulation in cases of retroflexion tended to the effusion of blood between the placenta and uterus, and this in its turn excited uterine action, or led to the death of the ovum. Two apparently characteristic cases were then detailed, in which repeated abortions (in one case six successive ones in the third month) had occurred, but in which the recurrence of this accident was prevented in a subsequent pregnancy by simply introducing a Hodge's pessary, and thus maintaining the uterus in a position favourable for its ascent during its growth. The treatment applicable in such cases, both before and after the supervention of pregnancy, was then noticed, and the paper concluded by referring to the influence of retroflexion in causing imperfect deliverance in cases of abortion. Some of the cases which the author had seen of long retention of a portion of the ovum had been cases complicated with retroflexion of the uterus.

Dr. TILT admitted that any considerable amount of uterine displacement was a cause of abortion; but were the cases referred to cases of uncomplicated displacement? Dr. Tilt had frequently seen chronic inflammation of the womb cause successive abortions, the liability to which ceased on the uterus becoming healthy.

Dr. BANTOCK could not agree with Dr. Tilt, for he had always believed that inflammation of the uterus was a decided bar against impregnation; but he entirely agreed with the accuracy of Dr. Phillips's observations as to the frequent occurrence of abortion as a result of displacement of the uterus either backwards or forwards. He had notes of several cases of abortion from displacement. Dr. Bantock briefly referred to some of these.

Dr. ROUTH thought the remarks made by Dr. Tilt more in accordance with his experience than those of Dr. Bantock. Flexions of the uterus, whether anteflexions or retroflexions, were, he considered, much more frequently the cause of sterility than of abortion. He could not then recall a single case in which he knew that pure uncomplicated flexion had existed before pregnancy, and in which afterwards pregnancy occurred, where abortion followed; but he was quite aware of cases where the flexion was complicated with ulcerations in which this had occurred. Again, ulcerations of themselves would not necessarily cause abortion. Many such cases got well. Dr. Routh thought that the author of the paper had not sufficiently insisted that no syphilitic taint existed in the cases, syphilis being, he believed, a very common disease among patients attending at Guy's Hospital.

Dr. RASCH said it would decrease the value of the discussion if certain well-known constitutional causes of abortion, like syphilis, were introduced into it. The subject of the paper was a certain well-defined mechanical cause of abortion which must be familiar to those engaged in obstetric practice, and he could fully subscribe to the author's views. In one point the paper might have been more distinct—namely, as it affected therapeutics. In cases of retroflexion produced, he believed, by some external violence during pregnancy, catheterism and one reposition of the uterus were often enough; but where the retroflexion was due to alterations in the texture of the uterus the proper treatment was to insert a Hodge's pessary, and keep it in till the fifth month. He also strongly advocated

the prone position. Dr. Rasch's experience of retained placenta after abortion made him concur in the closing remarks of the paper.

Dr. Wynn Williams said that ulceration and inflammation of the cervix uteri, and also displacements of the uterus, were occasionally the cause of sterility, at other times of abortion. Syphilis, although frequently, was not invariably, followed by abortion, or we should have no congenital syphilis. He could relate cases of abortion due to displacements; and he, like the author of the paper, had been in the habit of using a Hodge's pessary in the early months of pregnancy.

Dr. Barnes said his own experience entirely confirmed the author's conclusion that retroflexion was a frequent cause of abortion. It was necessary to remember that there were two different forms of retroflexion. The first form he believed to be congenital; it was often associated with a narrow os externum uteri, and dysmenorrhœa and sterility were the consequences. The other form might be called "acquired" retroflexion; it generally arose after a labour, the heavy uterus falling back while the parts were in a state of relaxation. In this case pregnancy would often occur, and end in abortion. With reference to Dr. Tilt's suggestion, he would observe that it was hardly possible to find a pure case of retroflexion. This displacement necessarily induced morbid conditions, especially engorgement of the body of the uterus and dilatation of its cavity. These secondary conditions might be concerned in producing the abortion, but still the retroflexion was the essential cause. Nor could Dr. Barnes assent to Dr. Bantock's observation that inflammation of the cervix uteri was a constant cause of sterility. Women frequently conceived while under treatment for this affection. He thought Dr. Phillips's paper would be useful in drawing attention to an important clinical fact.

The President said that, from the position of the retroflexed uterus, a tendency to abortion might be *à priori* anticipated; for not only was the organ exposed to concussion from movements of the body, coitus, etc., but, in consequence of the dependent position, there was three inches addition to the column of blood, the gravitation of which would retard the return into the veins, and thus assist in extravasation and death of the ovum. With regard to the increased difficulty in the discharge of the ovum referred to, he could say that in eight cases out of ten of abortion to which he was called in consultation there was a retroflexed uterus.

Dr. Phillips then replied.

Some Interesting Cases which had occurred in the practice of Mr. Bassett, of Birmingham, were then read. The first was a case of concealed accidental uterine hæmorrhage, fatal before delivery could be accomplished; the second, one of placenta prævia without hæmorrhage at the time of delivery; the third, a case of rupture of a varix in the genital organs during pregnancy; and the fourth was a case of destruction of the uterus by a severe labour.

Dr. Wiltshire thought the use of Barnes's dilating bags would have been useful in the first case.

Dr. Barnes, in answer to the President's question whether others had observed cases of placenta prævia without hæmorrhage, said he had seen such cases. They illustrated his theory of the physiology of placenta prævia. Hæmorrhage was not an absolute necessity in such cases. In Mr. Bassett's case probably that part of the placenta which came within the lower zone of the uterus had undergone such alteration of structure that it had ceased to be in vascular relation with the uterus. In reference to the first case just read, it was an illustration of what he had long ago pointed out, that fatty degeneration of the placenta was a cause of "accidental hæmorrhage."

OBITUARY.

THOMAS LEIGH BLUNDELL, M.D.,

Died last week at an advanced age, at St. Leonard's-on-Sea. Thirty years ago Dr. Blundell had an extensive obstetric practice in the City of London. He was Consulting Physician to the Royal Maternity Charity, Senior Physician to the London Dispensary, and formerly lectured on Midwifery and the Diseases of Women and Children to the Aldersgate-street School of Medicine. We believe that he made few or no contributions to the literature of the Profession.

It has been decided to open a nurses' training institution in Bradford.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 22:—

Kingcombe, Alfred Partridge, Ivy-bridge, Devonshire.
Ticehurst, Charles Sage, Hastings.

As an Assistant in Compounding and Dispensing Medicines—

Pearson, John Johnson, Whitehaven.

The following gentlemen also on the same day passed their first Professional examination:—

Ayling, Arthur Henry Williams, Middlesex Hospital.
Corbin, Edward Kinnersly, St. Thomas's Hospital.
Hicks, Edward John William, Guy's Hospital.
May, William Allan, Guy's Hospital.
Payne, Henry Peter, King's College.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Andrews, George, L.R.C.P.L., M.R.C.S.E., L.S.A.—Medical Officer for the Walton District of the West Derby Union.

Bearouons, E. F. H., M.R.C.S., L.S.A., etc.—Medical Officer to the Barnstaple and Ilfracombe Railway Company, and to the Provincial Assurance Society.

Carter, Edward Hunt, M.R.C.S.E., L.S.A., Medical Officer to the Guardians of Chelmsford Union for the Chelmsford District—To be Medical Officer of Health to the Chelmsford Local Board of Health.

Edwards, J. Ellis, M.R.C.S.E., L.S.A.—Assistant Medical Officer at the North Wales Counties Lunatic Asylum, Denbigh.

Foley, Charles James, M.D., L.R.C.S., and L.M.—Medical Officer for the Stratford District of the West Ham Union.

Fualono, Nicholas, L.K. & Q.C.P. Irel., L.R.C.S. Irel.—Medical Officer, Public Vaccinator, and Registrar of Births, Deaths, etc., for the Enniscorthy Dispensary District of this Union, *vice* Thomas G. Cranfield, M.D., deceased.

Hawthorne, John, M.D., L.R.C.S. Edin.—Medical Officer for the Workhouse and Fever Hospital, Banbridge Union, co. Down.

Johnston, Richd., M.R.C.P. and L.R.C.S.I., and L.M. (late Assistant House-Surgeon to the General Hospital, Notts)—House-Surgeon to the Dispensary, Nottingham, *vice* J. Rein, M.R.C.S.E and L.S.A., resigned.

McMaster, Andrew, L.R.C.S.I., L.R.C.P. Edin.—Medical Officer for the Omagh Union.

Sanderson, Robert, M.C.Q.U.I., L.R.C.S.I., etc.—Medical Officer, etc., for the Clonelly Dispensary District of the Irvinestown Union.

Williams, D. W., M.D., M.R.C.P.—Physician to Dorset County Hospital, *vice* C. Cowdell, M.D., deceased.

Wood, William, M.R.C.S.E., L.S.A.—Medical Officer for District No. 5 of the Beverley Union.

MARRIAGES.

Browning—Kendall.—On February 22, at St. Margaret's Church, King's Lynn, George A. Browning, Navigating Lieutenant R.N., to Mary Elizabeth, second daughter of the late Thomas M. Kendall.

Copland—Spence.—On February 22, at St. Andrew's, Islington, Henry S. Copland, C.E., Hertford House, Brondesbury-road, Kilburn, son of the late Dr. James Copland, F.R.S., to Maria Louisa, daughter of John Spence, F.R.C.S., Bedale, Yorkshire.

Hughes—Gillan.—On January 25, at the Church of the Holy Trinity, Allahabad, David Erskine Hughes, M.D., F.R.C.S.E., Bombay Medical Service, to Mary Jane, elder daughter of the Rev. Robert Gillan, D.D., Inchinan, Renfrewshire, Scotland.

Lees—Lawrence.—On February 20, at Meanwood Church, Meanwood, near Leeds, F. Arnold Lees, L.R.C.P. Lond., M.R.C.S. Eng., to Mary, second daughter of John St. Lawrence, Esq., Dalton-in-Furness.

Tardrew—Page.—On February 21, at St. Paul's Church, Deptford, Philip Tardew, elder son of Edwin Tardew, Esq., of Bristol, to Annie, second daughter of the late J. P. Page, Surgeon 19th Hussars.

Witt—Cooper.—On February 21, at St. Mark's Church, Hamilton-terrace Gerard Ranelagh, youngest son of Dr. Witt, M.R.C.P., of Spring-gardens, St. James's-park, to Cecilia Jane Seymour, youngest daughter of William Bush Cooper, Esq., of the Temple, and Llwyndcofr, Carmarthenshire.

DEATHS.

Anderson, Charles Abercromby, C.B., M.D., Inspector-General of Hospitals and Fleets, in London, on February 25.

Andrews, Elizabeth, the wife of Onslow Andrews, Esq., and mother of Onslow Andrews, M.D., Alfred B. Andrews, Esq., M.R.C.S., and Henry Charles Andrews, M.D., at Brabourne, near Ashford, Kent, on Feb. 28.

Blundell, Thomas Leigh, M.D., of London, Consulting Physician to the Royal Maternity Charity, at St. Leonard's-on-Sea, on February 22, aged 84.

Chapman, Lilian Hatton, youngest daughter of the late Dr. E. C. Chapman, of Biarritz, at Barnes, S.W., on February 16, aged 3½ years.

Eastwood, Charles Septimus, M.D., Oshawa, Ontario, Canada, at Lytham, Lancashire, on February 18, aged 42.

Fiath, Dr. Joseph Thomas Forbes, at 45, Union-road, Rotherhithe, on February 24, aged 46.

Jervis, Mary Jane, wife of Thos. Jervis, M.D., at 32, Connaught-square, W., on February 24.

LORIMER, JOHN, M.D., L.R.C.S. Edin., L.S.A., Medical Practitioner of Batavia, of dysentery, on the evening of February 8.

MOSSMAN, CHARLES STUART, only surviving son of the late Dr. Mossman, of Bradford, Yorkshire, in New Zealand, on December 9, in his 50th year.

PALMER, WILLIAM ORIMES, M.R.C.S. and L.S.A., at Loughborough, Leicestershire, on February 16, in the 65th year of his age.

THURSFIELD, WILLIAM, Surgeon, at St. Leonard's-churchyard, Bridgnorth, on February 20, in the 73rd year of his age.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM QUEEN'S HOSPITAL.—Resident Physician and Medical Tutor Candidates must be Graduates in Medicine of a University of Great Britain or Ireland. Applications, with diplomas and testimonials, to Mr. H. C. Burdett, on or before March 22.

BRISTOL LUNATIC ASYLUM, STAPLETON, NEAR BRISTOL.—Assistant Medical Superintendent. Must be duly qualified to practise. Applications to Mr. J. F. Williams, Clerk to the Visitors, Council House, Bristol, on or before March 5.

CAXTON AND ARRINGTON UNION.—Medical Officer for the Caxton No. 1 District of this Union. Candidates will be required to possess the qualifications prescribed by the General Orders of the Local Government Board. Residence within the district required. Applications to Mr. H. Mortlock, Clerk to the Guardians, on or before March 11. Election the following day.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Clinical Assistant. Must possess at least one qualification. Applications to the Secretary, on or before March 2.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant Medical Officer. Must be qualified in accordance with the Rules of the institution, which may be had on application to Mr. John Calder, Secretary, on or before March 6.

LOCHMABEN, DUMFRIESSHIRE.—Medical Officer wanted for this Parish. Good scope for private practice. Applications to the Inspector of the Poor, on or before March 22.

ST. MARYLEBONE PROVIDENT DISPENSARY.—Medical Officer-in-Ordinary. Must possess a Physician's or Surgeon's diploma of one of the Colleges of London, Edinburgh, or Glasgow, and be a L.S.A. Applications to the Secretary, 16A, Duke-street, Portland-place, on or before March 2.

STOCKTON-ON-TEES DISPENSARY.—Registered Practitioner, to visit and dispense. Testimonials, etc., to Mr. E. E. Clapham, on or before March 9. The duties will commence early in April.

WALLASEY DISPENSARY.—House-Surgeon. Must be duly qualified and registered. Applications to Mr. W. D. Broome, Hon. Secretary, Withenfield-terrace, Liscard, Cheshire, on or before March 3.

WEST HAM, STRATFORD, AND SOUTH ESSEX DISPENSARY.—Dispenser. Applications to Mr. Thomas G. Tonge, 2, St. John's-terrace, Stratford, E., on or before March 6.

WEST WARD UNION.—Medical Officer and Public Vaccinator for the District of Shap. Candidates must be duly qualified. Applications to Mr. J. P. Shepherd, on or before March 6. Election on the same day.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Barrow-upon-Soar Union.—Mr. Samuel Wright has resigned the Workhouse (salary £40 per annum) and the Rothley District; area 4505; population 3140; salary £35 per annum.

Burton-upon-Trent Union.—Mr. Thomas H. Creswell has resigned the Lullington District; area 2007; population 625; salary £10 per annum.

APPOINTMENTS.

Calne Union.—Charles A. Brigstocke, M.R.C.S. Eng., L.S.A., to the Union and Workhouse.

Christchurch Union.—John S. Morrill, F.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Eastern District.

Holsworthy Union.—Francis C. Fitzgerald, L.R.C.S. Ire., L.K.&Q. College of Physicians, Ireland, to the Fourth District.

St. George's-in-the-East Parish.—Henry B. Courtenay, L.S.A., L.F.P.&S. Glasg., to the South District; George G. A. Sutcliffe, M.R.C.S.E., L.R.C.P. Edin., to the North District.

Tenbridge Union.—Henry M. Lawrence, L.R.C.P. Edin., L.R.C.S. Edin., to the Fourth District.

SIR JAMES PAGET, BART., AND DR. MATTHEWS DUNCAN have been elected Honorary Members of the Royal Medical Society of Edinburgh.

MR. WINTER has been appointed by the Bethnal-green Guardians their officer for enforcing compliance with the requirements of the Vaccination Laws.

ALEXANDER M'KELLAR, M.D., of the Queen's University of Ireland, M.R.C.S.E., and lately attached to the Prussian army during the war, has been appointed Resident Medical Officer to the Royal Free Hospital.

WILLIAM PATRICK, a potted meat manufacturer at Birmingham, was fined 20*l.* and costs last week for having meat which was proved to have been that of an animal suffering from inflammation, and at the time it was seized it was in the process of being made into potted meat.

THE state of health in Syria is most excellent. Quarantines have been entirely removed from the Turkish, Syrian, and Egyptian coasts.

SCARLATINA is now raging in the higher parts of Heptonstall. Three deaths from the disease have already occurred in one family.

THE following is the list of gentlemen who competed successfully for appointments as Assistant-Surgeons in her Majesty's British Medical Service at the examination held at the London University on February 12 :—

Order of merit.	Names.	Marks.	Order of merit.	Names.	Marks.
1.	Magill, J.	2239	7.	Bushe, C. J. L.	1727
2.	O'Donnell, R. W.	1956	8.	Quill, R. H.	1725
3.	Donovan, W.	1885	9.	Slaughter, W. B.	1686
4.	Swayne, C. H.	1795	10.	Brown D. B.	1675
5.	Tincler, B. M.	1785	11.	Keys, C. W. M.	1675
6.	Browne, A. L.	1775	12.	Stokes, H. H.	1530

THE THANKSGIVING SERVICE.—Fifteen cards of admission to the Thanksgiving ceremony at St. Paul's Cathedral were placed at the disposal of the Director-General of the Army Medical Department, and were distributed as follows:—The Director-General, Dr. Balfour, F.R.S., Head of the Statistical Branch; Dr. Rutherford, C.B., Head of the Medical Branch; Staff Surgeon Dr. Marston, acting as Head of the Sanitary Branch; Inspector-General F. W. Innes, M.D., C.B., Principal Medical Officer at Netley; Professors Parker, Longmore, Maclean, and Aitken, of the Army Medical School at Netley, Principal Medical Officers; Inspector-General J. D. McIlree, Portsmouth; Deputy Inspectors-General J. Fraser, M.D., C.B., Manchester; C. A. Gordon, M.D., C.B., Dover; N. Heffernan, M.B., Colchester; Surgeon-Major J M. S. Fogo, R.A., Acting Principal Medical Officer at Woolwich; and Staff Surgeon-Major A. Leith Adams, on the Recruiting Staff in London. The following were the representatives of the Medical Service :—Medical Director-General Sir Alexander Armstrong, K.C.B.; Inspectors-General of Hospitals and Fleets Sir E. Hilditch, M.D., Sir David Deas, K.C.B., and Charles A. Anderson, M.D., C.B.; Deputy Inspectors-General of Hospitals and FleetsHenry J. Domville, M.D., Alexander E. Mackay, M.D., W. T. Domville, M.D., William Macleod, M.D., and William Henry Hoggett; Staff Surgeon S. Wade; Surgeon Thomas Jameson, M.D.; Assistant-Surgeons W. B. Fletcher, F. Buckle, and R. G. M'Calnar.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Ishmael.—Address, Dr. Joseph Rogers, Dean-street, Soho, London, W.C.

Wallingford.—The remedy was prompt and serviceable, but pretty well known. Ammonia might have done as well.

White-Celled Blood.—We are sorry that the article with this title does not suit our columns.

Homo Vagus.—The motto of the Royal College of Physicians is the Hippocratic aphorism, Ὁ βίος βραχὺς ἡ δὲ τέχνη μάκρη—"Life is short and art is long." The Royal College of Surgeons takes *Quæ prosunt omnibus artes*—"Arts that serve all men"; the Society of Apothecaries, Apollo's boast, *Opiferque per orbem dicor*—"Over all the world I am called the help-bearer." The Pharmaceutical Society has the motto, *Habenda ratio valetudinis*—"Regard must be had to the state of health." We know not the motto of the Obstetrical Society—perhaps *Diva quæ ter vocata audis*, or *Juno Lucina fer opem*. The General Medical Council also, we believe, are destitute as yet of a motto; perhaps ἀναρχίαν καὶ ἀτελευτήτον τὸ πᾶν, or *In nova fert animus mutatas dicere formas corpora*. The Medical Department of the Local Government Board might adopt the motto, *Et si nullus erit pulvis, tamen excute nullum*.

FEVER HOSPITALS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should be much obliged if any of your readers could give me information on the subject of existing Fever Hospitals in England, Scotland, or Ireland. Reports, copies of rules, description of building, or even intimation of the existence of such an institution, will be thankfully received.

I am, &c.,

EDWARD T. WILSON, M.B. Oxon., F.R.C.P.

6, Montpellier-terrace, Cheltenham, Feb. 26.

COMMUNICATIONS have been received from—

MR. T. HARVEY; ISHMAEL; DR. BROADBENT; MR. WORKMAN; MR. SWIFT; MR. GRAHAM; MR. CUTCLIFFE; MR. KENNEDY; DR. NEILD; MR. W. E. PORTER; HOMO VAGUS; MR. W. W. REEVES; DR. J. MATTHEWS DUNCAN; MR. F. A. MAHOMED; MR. H. MORRIS; MR. C. F. MAUNDER; DR. C. J. B. WILLIAMS; DR. LIONEL S. BEALE; MR. J. CHATTO; MR. TERRY; MR. BURROUGHS; DR. ALDIS; MR. JOHNSTON; DR. E. F. TURNER; MR. THURSFIELD; DR. PLAYFAIR; DR. ROGERS; MR. A. O'MCKELLAR; DR. E. T. WILSON; MR. J. B. WALKER; MR. G. LAWSON; DR. H. C. ANDREWS; DR. MACEVERS.

BOOKS RECEIVED—

Dr. Dunglison on the Public Medical Libraries of Philadelphia—Transactions of the Obstetrical Society, vol. xiii.—Hunt on the Cause of Death in Fever—Smith's Mental Capacity—Historic de nos Relations avec l'Académie de Médecine, 1827-1871.

PERIODICALS AND NEWSPAPERS RECEIVED—

Melbourne Age—Australian Medical Journal—Australian Medical Gazette—Pharmaceutical Journal—Morning Mail—Philadelphia Medical Times—Canada Lancet—Birmingham Post—American Journal of the Medical Sciences—Birmingham Morning News—Irish Daily Telegraph—Western Daily News.

APPOINTMENTS FOR THE WEEK.

March 2. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. Moncure Conway, "Demonology."

4. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. Teevan, "On Impotence." Prof. Erasmus Wilson, F.R.S., "On Neuropathic Excoriations of the Skin: a peculiar form of Cutaneous Affection associated with General Derangement of the Nervous System." Also a Paper by Dr. Sansom, "Inflammation of the Lungs as a Cause of Consumption."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

5. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

PATHOLOGICAL SOCIETY, 8 p.m. Meeting.

ROYAL INSTITUTION, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

6. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

OBSTETRICAL SOCIETY, 8 p.m. Dr. Granville Bantock, "On the Use of the Sponge Tent in Menorrhagia." Mr. Bryant, "On a Case of Fibro-cystic Disease of the Uterus successfully Extirpated." Dr. Martin (Berlin), "On some forms of Distorted Pelves."

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Croonian Lectures—Dr. Bristowe, "On Disease and its Remedial Treatment."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Dr. Klein, "On the Earliest Stages of Development of *Salmo fario*," and "On the Nerves of the Cornea."

SOCIETY OF ARTS, 8 p.m. Meeting.

7. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Mr. J. L. Milton, "On the Pathology and Treatment of Eczema."

ROYAL INSTITUTION, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

8. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. H. Weber, "On a Case of Hyperpyrexia in Rheumatic Fever treated by Cool Baths and Affusions." Dr. R. Southey, "On Two Cases of persistent Omphalo-mesenteric Duct leading to Fatal Intestinal Obstruction." Mr. Teevan, "The Treatment adopted for the Relief of Four Cases of Impassable Stricture."

QUEKETT MICROSCOPICAL CLUB, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Croonian Lectures—Dr. Bristowe "On Disease and its Remedial Treatment."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

ROYAL INSTITUTION, 9 p.m. Mr. R. Liebreich, M.R.C.S., M.R.I., "On the Effect of certain Faults of Vision on Painting, with especial reference to Turner and Mulready."

EXPECTED OPERATIONS.

ROYAL FREE HOSPITAL.—The following Operation will be performed on Saturday (this day), at 2½ p.m.:—

By Mr. Gant—Excision of Knee-joint.

VITAL STATISTICS OF LONDON.

Week ending Saturday, February 24, 1872.

BIRTHS.

Births of Boys, 1210; Girls, 1118; Total, 2328.
Average of 10 corresponding weeks, 1862-71, 2222·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	749	739	1488
Average of the ten years 1862-71	778·1	749·4	1527·5
Average corrected to increased population	...	...	1680
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	10	7	1	11	2	2	3	2
North ...	751668	24	22	5	1	32	1	2	1	2
Central ...	333887	7	6	2	...	13	...	1	...	...
East	638928	6	4	8	...	24	...	3	6	2
South	966132	14	10	10	..	17	...	7	4	2
Total	3251804	53	52	32	2	97	3	15	14	8

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·670 in.
Mean temperature	44·9°
Highest point of thermometer	55·8°
Lowest point of thermometer	35·2°
Mean dew-point temperature	40·7°
General direction of wind	S.W.
Whole amount of rain in the week	0·34 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, February 24, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending Feb. 24	Deaths Registered during the week ending Feb. 24.	Temperature of Air (Fahr.): Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values	Temp. of Air (Cent.): Weekly Mean of Mean Daily Values	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2328	1488	55·8	35·2	44·9	7·17	0·34	0·86
Portsmouth ..	115455	12·1	85	45	54·8	32·8	44·7	7·06	0·64	1·63
Norwich	81105	10·9	56	42	50·2	31·0	41·1	5·06	0·07	0·18
Bristol	186428	39·8	124	76	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	57	48	53·4	35·1	42·6	5·89	0·57	1·45
Birmingham ..	350164	44·7	263	147	54·2	36·0	43·0	6·11	2·27	5·77
Leicester	99143	31·0	107	41	54·2	32·2	42·5	5·84	0·93	2·32
Nottingham ...	88225	44·2	54	48	52·5	32·2	42·1	5·62	1·27	3·23
Liverpool	499897	97·9	373	255	53·8	36·0	43·4	6·33	0·71	1·80
Manchester ...	352759	78·6	297	238	54·0	33·0	42·2	5·67	1·13	2·87
Salford	127923	24·7	61	71	53·8	32·9	42·0	5·56	1·12	2·84
Oldham	84004	20·2	64	48	...	...	...	...	...	...
Bradford	151720	23·0	109	87	48·8	36·5	42·8	6·00	0·77	1·96
Leeds	266564	12·8	220	155	51·0	36·0	42·2	5·67	0·68	1·73
Sheffield	247847	10·9	196	146	53·0	32·3	42·6	5·89	0·95	2·41
Hull	124976	35·1	91	73	...	...	...	...	...	...
Sunderland ...	100665	30·4	90	64	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	103	69	47·0	33·0	40·5	4·72	0·35	0·89
Edinburgh	205146	46·3	115	126	47·0	31·0	39·2	4·00	0·90	2·29
Glasgow	489136	94·8	379	303	46·1	35·0	40·5	4·72	1·63	4·14
Dublin	310565	31·9	176	176	57·8	32·5	45·6	7·55	0·19	0·48
Total of 21 Towns in UnitedKingd'm	7394345	34·0	5348	3746	57·8	31·0	42·5	5·84	0·85	2·16

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·67 in. The highest was 29·98 in. on Wednesday evening, and the lowest 29·36 in. on Saturday afternoon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

MEETING OF THE GENERAL MEDICAL COUNCIL.

HELD AT 32, SOHO-SQUARE.

FIRST DAY—THURSDAY, FEBRUARY 29—*Continued.*

The next business was the reception of the Returns from the Army Medical Department, sent with the following communication from the Director-General:—

Army Medical Department, October 5, 1871.

Sir,—I am desired by the Director-General to acknowledge the receipt of your letter of July 19 last, and agreeably with the request therein contained, beg leave to enclose a statement, with alterations suggested, showing the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who in August last presented themselves for examination.

I have the honour to be, Sir,
Your obedient Servant,
(Signed) THOS. CRAWFORD, M.D.
Dr. F. Hawkins, Head of Medical Branch.
Registrar, General Council of Medical Education,
32, Soho-square, London, W.

Statement of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army who, in August, 1871, *presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the heads of the several Licensing Bodies.*

Names of Licensing Bodies.	Qualifications.					
	Number of Qualifications.			Deficient in		
	Total.	Number passed.	Number failed.	Anatomy.	Surgery.	Medicine.
Royal Coll. of Physicians, London	2	2	...	...	...	...
Ditto Surgeons, England	10	10	...	1	1	...
The Society of Apothecaries, London ...	6	6	...	1	...	...
Royal Coll. of Physicians, Edinburgh ...	4	3	1	1	1	1
Ditto Surgeons, Edinburgh	4	3	1	1	1	1
K. and Q. Coll. of Physicians, Ireland ...	8	8	...	2	...	...
Royal Coll. of Surgeons, Ireland	11	11	...	2	...	...
Apothecaries' Hall, Dublin	1	1	...	...	...	...
University of Glasgow ... ...M.B.	1	1	...	1	...	...
Ditto ditto ... ...M.Ch.	1	1	...	1	...	...
Ditto Aberdeen ... ...M.B.	2	2	...	...	...	...
Queen's University, Ireland ... ...M.D.	8	8	...	...	...	...
Ditto ditto ... ...M.Ch.	6	6	...	...	...	...
University of Dublin ... ...M.B.	4	4	...	1	...	...
Ditto ditto ... ...M.Ch.	2	2	...	1	...	...
Total	70	68	2	12	3	2

REMARKS.—Total number of candidates, 34: Succeeded in obtaining appointments, 14; succeeded in examination, but not in obtaining appointments, there being only fourteen vacancies, 19; failed in examination, 1.

Dr. ALEXANDER WOOD said that, having regard to their experience of these returns last year, he should move the following resolution:—"That the returns of the Army Medical Department be received and remitted to a committee for consideration."

The motion was seconded by Mr. HARGRAVE and unanimously adopted.

The REGISTRAR read the correspondence with the Home Office respecting a resolution passed by the General Medical Council at their last meeting on the subject of death registry.

CONJOINT EXAMINING BOARDS.

The replies of the following Examining Bodies were read by the REGISTRAR:—The Royal Colleges of Physicians and Surgeons of London, the University of Oxford, the University of Cambridge, the University of Durham, the University of London, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons, Glasgow, the University of Edinburgh, the University of Aberdeen, the University of Glasgow, the University of St. Andrews. The scheme proposed by the Royal College of Physicians of London and the Royal College of Surgeons of England was as follows:—

SCHEME FOR AN EXAMINING BOARD FOR ENGLAND, ADOPTED BY THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

In view of the legal difficulties which have been stated by the Society of Apothecaries to prevent that Society taking part in the formation of an Examining Board in this division of the United Kingdom:

Resolved,—

I.—That a Board of Examiners be appointed in this division of the United Kingdom by the co-operation of the Royal College of Physicians of London, the Royal College of Surgeons of England, and of such other of the Medical authorities in England, mentioned in Schedule (A) to the Medical Act, as may take part in its formation, it being understood that, liberty being left to such co-operating Medical authorities to confer as they think proper, their honorary distinctions and degrees, each of them will abstain from the exercise of its independent privilege of giving admission to the Medical Register.

II.—That the Board be constituted of Examiners, or of Examiners and Assessors appointed by the several co-operating Medical authorities.

III.—That Examiners be appointed on the following subjects:—Anatomy and Physiology; Chemistry; Materia Medica, Medical Botany, and Pharmacy; Forensic Medicine; Medicine; Surgery; Midwifery; or on such subjects as may be hereafter required.

IV.—That no Examiner hold office for more than five successive years, and that no Examiner who has continued in office for that period be eligible for re-election until after the expiration of one year.

V.—That the Examiners be appointed annually by the several co-operating Medical authorities, on the nomination of a committee called herein "The Committee of Reference," but no member of the Committee of Reference shall be eligible for nomination as an Examiner.

VI.—That a Committee of Reference, to consist of an equal number of representatives of Medicine and of Surgery, be appointed, as follows:—One representative of Medicine, and one representative of Surgery, to be appointed by each of the Universities in England. Four representatives of Medicine to be appointed by the Royal College of Physicians of London. Four representatives of Surgery to be appointed by the Royal College of Surgeons of England.

VII.—That one-fourth of the Committee of Reference go out of office annually, and that after the first four years no retiring member be re-eligible until after the expiration of one year.

VIII.—That the duties of the Committee of Reference be generally as follows:—1. To determine the number of Examiners to be assigned to each subject of examination. 2. To nominate the Examiners for appointment by the several co-operating Medical authorities. 3. To arrange and superintend all matters relating to the examinations, in accordance with regulations approved by the co-operating Medical authorities. 4. To consider such questions in relation to the Examinations as they may think fit, or such as shall be referred to them by any of the co-operating Medical authorities, and to report their proceedings to all the said authorities.

IX.—That there be two or more examinations on Professional subjects, and that the fees of candidates be not less than thirty guineas, to be paid in two or more payments.

X.—That every matriculated student of an English university who shall have completed the curriculum of study required by his university, and shall have passed such an examination or examinations, at his university, as shall comprise the subjects of the primary examination or examinations conducted by the Board, be eligible for admission to the final examination; and that every candidate so admissible to examination be required to pay a fee of five guineas, but he shall not be thereby entitled to the licence of the Royal College of Physicians of London, nor to the diploma of Member of the Royal College of Surgeons of England, without the payment of an additional fee of not less than twenty-five guineas.

XI.—That every candidate who shall have passed the final examination conducted by the Board shall, subject to the By-laws of each Licensing Body, be entitled to receive—The Licence of the Royal College of Physicians of London, and the diploma of Member of the Royal College of Surgeons of England. (Signed)

GEORGE BURROWS, President of the Royal College of Physicians.
GEORGE BUSK, President of the Royal College of Surgeons.

The remaining correspondence having been read by the Registrar,

Mr. BRADFORD, the representative of the Apothecaries' Society, presented a statement, which, after some discussion, was read. The effect of the statement was that the Apothecaries' Society had been advised that restrictions were attempted to be imposed by the scheme of the Colleges of Physicians and Surgeons, which were unreasonable and illegal; and the Apothecaries' Society therefore protested against the adoption of that scheme.

LETTER FROM THE MASTER OF THE SOCIETY OF APOTHECARIES OF LONDON.

Apothecaries' Hall, February 29, 1872.

Sir,—The Society of Apothecaries have reason to believe that a draft scheme for an Examining Board for England, prepared by a Committee of the Royal College of Physicians of London and a Committee of the Royal College of Surgeons of England, and approved by the Governing Bodies of those Colleges, will be submitted for the sanction of the General Medical Council.

The Society of Apothecaries having been advised that the conditions and restrictions attempted to be imposed by this scheme are unreasonable and illegal, I am desired to acquaint you, for the information of the General Medical Council, that the Society of Apothecaries, as one of the Examining Bodies of England mentioned in Schedule (A) of the Medical Act, protest against the adoption of such scheme, and respectfully invite the General Medical Council to refuse their sanction to it.

The 15th section of the Medical Act provides that every person then possessed, and every person thereafter becoming possessed, of any one of the qualifications described in Schedule (A) to the Act, shall be entitled to be registered on producing to the Registrar of the Branch Council for England, Scotland, or Ireland the document confirming or evidencing the qualification in respect whereof he seeks to be registered.

By the proposed scheme each of the Colleges pledges itself to abstain from the exercise of its independent privilege of giving admission to the Medical Register—that is to say, the College of Physicians engages to refuse its licence to any candidate who does not pass the examination proposed by the Joint Board, and thereby entitle himself to the diploma of the College of Surgeons as well as the licence of the College of Physicians; and, in like manner, the College of Surgeons engages to refuse its diploma to any candidate who does not pass the examination of the Joint Board, and thereby entitle himself to the licence of the College of Physicians, as well as the diploma of the College of Surgeons.

The Society of Apothecaries are advised that, having regard to the 15th section of the Medical Act, entitling every person to be registered in respect of any one of the qualifications described in Schedule (A), it is contrary to the policy and the expressed intention of the Act for the Colleges

of Physicians and Surgeons to bind each other to abstain from the independent privilege of giving admission to the Medical Register, or to require, as a condition or consequence of examination by a Joint Examining Board, that a candidate shall obtain and pay for both the licence of the College of Physicians and the diploma of the College of Surgeons.

The Society of Apothecaries therefore formally protest against the proposed scheme, on the ground that it would violate the express provisions of the Medical Act, and they respectfully submit that the General Medical Council are bound to withhold their sanction from it.

The draft scheme is prefaced by an allusion to legal difficulties, which it alleges the Society of Apothecaries have stated to prevent that Society taking part in the formation of an Examining Board in this division of the United Kingdom.

This assumption is purely gratuitous. The Society of Apothecaries have never stated the existence of legal difficulties which would prevent their taking part in the formation of an Examining Board.

The opinion which the Society had received from their counsel was frankly read to the Committee of the two Royal Colleges, and this very opinion, while it pointed out the difficulties in the way of the Society's taking part in the particular scheme to which the opinion had reference, suggested means by which those difficulties might, to a great extent, be obviated.

The Society deem it respectful to the General Medical Council to state that, acting upon the invitation of the Council to the Medical Authorities to concert a scheme for the constitution and regulation of a Conjoint Examining Board, the Society cordially co-operated with the Colleges of Physicians and Surgeons for the establishment of such a Board in this division of the kingdom, and so far with success that a draft scheme for an Examining Board, prepared by the Committees of the two Royal Colleges and this Society, received the signatures of the Presidents of the two Colleges and the Master of this Society, and was recommended for the adoption of the Governing Bodies of the three Medical Corporations; but the Council of the Royal College of Surgeons having declined to sanction this scheme, other proposals were made, which have resulted in the present scheme of the College of Physicians and the College of Surgeons.

The Society of Apothecaries desire to add that this latter scheme was decided upon by the two Colleges without communication with the Society, and without any opportunity being afforded to the Society of expressing an opinion upon it.

I have the honour to be, Sir, your most obedient servant,

(Signed) George Kelson, Master of the Society.

To the President of the General Medical Council.

Letters from the University of Oxford, Pembroke College, Cambridge University College, Durham, and other English Examining Bodies, were read by the Registrar.

A resolution was proposed by Mr. Harcrave—"That the documents received from the English Licensing Bodies, as now read, be entered on the Minutes."

Dr. Quain seconded the resolution, which was carried.

Sir William Gull was desirous of knowing why the Apothecaries' Society could not join in the joint scheme. He also would ask Dr. Storrar if there was not some way by which the University of London might escape from the difficulties they felt in joining the scheme.

Dr. Bennett moved—"That the Council now proceed to take into consideration the scheme submitted to them by the Conjoint Colleges of London, the Colleges of Physicians and Surgeons commencing the discussion of that by the consideration of the scheme as it is printed in the programme."

Dr. Acland seconded the resolution, but suggested that the Council should state its approval or disapproval of the Conjoint Scheme before it proceeded to the consideration of the remaining replies. Clause 9 really empowered any two bodies to unite, as had already been done in Scotland; and it was entirely competent to the Colleges of Physicians and Surgeons to present a Conjoint Scheme for England without consulting any other body. As regards the London University, it appeared that the Secretary of State and law officers of the Crown could not consent to the scheme, although the London University desired to give their consent. He cordially assented to Dr. Bennett's proposal that the Council should express their approval of that which was before them—namely, the scheme of the Colleges of Physicians and Surgeons. The adhesion to the scheme of other bodies was no concern of the Council. He should advise that the protest of the Apothecaries' Society be referred to the solicitor of the Council, inasmuch as it was a protest against the legality of their procedure.

The resolution, altered in accordance with Dr. Acland's suggestion, was put as follows:—"That the Council, having considered the Conjoint Scheme of the Royal College of Physicians of London and the Royal College of Surgeons of England, do approve of and give its consent to the same."

Dr. Thomson was not prepared to enter upon the discussion of the sections until the whole replies were before the Council, and moved as an amendment—"That before proceeding to the consideration of the English scheme the remaining documents which had been laid before the Council be read."

Sir Dominic Corrigan having seconded the amendment,

Dr. Bennett withdrew the resolution, and

The remaining communications having been read by the Registrar,

Dr. Bennett, in moving the original resolution, said he felt it incumbent upon him to allude in the first place to the amount of time and labour which had been bestowed upon the subject by the two Colleges, who had endeavoured to carry out in the most loyal way the suggestions of the Council. The scheme had been prepared in the face of very great difficulties. A communication having been received from the legal adviser of the Apothecaries' Society that there were difficulties in the way of their joining in the scheme, the Colleges had proceeded to carry out their scheme independent of the Apothecaries' Society, the object being the formation of such a board as should give a thoroughly efficient examination, and prevent anyone coming upon the Registry by means of the simple licence of either College. It was felt that if a satisfactory scheme could be drawn up there was a prospect of other bodies joining in it. The scheme was submitted to the highest legal authority. The opinions of Sir Roundell Palmer, Mr. Denman, and others were taken upon it—among other things upon the subject of the possible difficulty with the Apothecaries' Company—and their opinion was that it was perfectly competent to the Colleges to do what the scheme professed to do irrespective of the Apothecaries' Society altogether. Dr. Bennett then proceeded to illustrate the working of the proposed scheme. The Colleges asked the sanction of the Council to the scheme, in order at once to prepare the necessary details for bringing the Conjoint Boards into immediate action. They were anxious, if possible, to do so before the commencement of the next session. Any suggestions which the Council had to offer would be entertained; but at the same time it must be remembered that this complete scheme came before them after enormous difficulties had been overcome, and that any suggestions involving material alterations would in all probability involve the throwing it back for an indefinite period, and possibly of defeating it altogether. He did not see how the Apothecaries' Society could possibly be brought to concur in the scheme, there being so many difficulties in the way.

Dr. Acland seconded the resolution.

Dr. Andrew Wood gave his distinct approval to the scheme as a scheme for the co-operation of the two Colleges, but he demurred to its being called a scheme for an Examining Board for England. There had been an endeavour to form a Conjoint Board for England, which should include everybody. The way in which the proposed scheme got over the difficulty was by leaving out a most important body—the Society of Apothecaries. The present scheme, therefore, was not a complete scheme for England. If the Council agreed to sanction the proposed scheme, he thought no slur should be thrown upon the Irish and Scotch Boards if they did not succeed in forming a satisfactory scheme, seeing that in England the difficulty had been got rid of by leaving out the Society of Apothecaries of London. Now, what were the legal difficulties referred to? They seemed to be that the Colleges of Physicians and Surgeons had been unwilling to consent to some arrangements proposed by the Apothecaries' Society. He would call their attention to what had been done in Ireland, which would show that the difficulties were not insurmountable. It seemed to him that in Ireland the subject had been grappled with in the most manly way. He must confess that, notwithstanding all his sanguine expectations that the scheme might be carried out by mutual concession, he had come to the conclusion that it could not be carried out in that degree which would give it any effect, or would benefit the Profession and the public, unless it was done by Medical legislation.

Sir Dominic Corrigan gave his hearty co-operation to the scheme. The objection had been made that all the bodies had not joined; but it had not been the fault of the Colleges of Physicians and Surgeons. He, however, did not think the resolution grappled with the great question before them—namely, that the various bodies should unite and form a Conjoint Examining Board.

Dr. Alexander Wood called the attention of the Council to the resolution passed at the meeting of July 10, 1871—"That, in case the arrangements for Conjoint Examining Boards are not completed in each division of the kingdom by the close of the year, in accordance with the recommendations of the Council on the subject, the Executive Committee should be authorised to seek an interview with the Lord President of the Privy Council, and to urge upon him the desirability of Medical legislation on the subject of Conjoint Examining Boards in the session of 1872;" and to the amendment which he himself had moved—"That a meeting of the Medical Council be held early in 1872 to receive the proposals of the Bodies for Conjoint Examinations, and to consider whether any and what steps should be taken to carry out the resolutions of the Council." He submitted that there was not before them the shadow of a scheme for three Conjoint Examining Boards for each division

of the kingdom. It was little more than the scheme which the College of Surgeons of Edinburgh and the Faculty of Surgeons and Physicians of Glasgow had submitted in the second year of the existence of the Council which received its sanction. If the Council passed the resolution of Dr. Bennett, they were scarcely a single step nearer the desired consummation than they were at this time last year. He did not suppose the Apothecaries' Society would suffer itself to be extinguished quietly, but anticipated that they would continue to give licences. He hoped there would be no opposition to Dr. Bennett's motion; but it should be distinctly understood that no such scheme was submitted to the Council as had been intended.

Dr. PARKES would also support Dr. Bennett's motion. He thought that it was a very small portion of what the Council had proposed. It was of very great importance that the Council should make it a truly Conjoint Board for the whole of England, and that could only be done by taking in the Apothecaries' Society. He would ask the representative whether there was any really insuperable objection to their joining in the scheme, and if not, he would propose to add this clause to the resolution—"In approving of this Conjoint Scheme, the Council desires to express its opinion that if the legal difficulties could be overcome, the Society of Apothecaries in London should be admitted to a share of the examination."

Mr. BRADFORD thought it right that it should not go forth that the Society of Apothecaries had been the means of defeating the Conjoint Scheme. He utterly denied that such was the fact. To the scheme as originally proposed the Society saw little objection, but a new scheme was suggested to which they were constrained to object. The Society of Apothecaries did not break off the negotiations, but there were certain difficulties pointed out by their legal adviser which were necessary to be considered. No opportunity of discussing these difficulties was afforded by the Royal Colleges. The conference was adjourned *sine die*, and from that day to the present the Society has received no official communication except a printed draft copy of the scheme now before the Council. They had not been invited to co-operate or to take any part in it. Their difficulties had been these: In the first place, they were bound by the stringent conditions of an Act of Parliament. The difficulty arising from the condition of apprenticeship imposed by the Act of 1815 was, they were advised, very grave. The next difficulty was the question of the fee; the Act restricted the fee for the licence to practise as an apothecary (in the country) to six guineas, and they were advised that a larger fee could not be exacted from a candidate who sought their licence *alone*, and who could pass the necessary examination. Mr. Bradford disputed that the two Colleges had power to bind themselves to refuse an examination in Surgery alone to one of the Society's licentiates unless he were willing to undergo the examination of the proposed Conjoint Board, and to pay the fee of thirty guineas. The 15th section of the Act of 1858 distinctly enacted that every person who possessed one of the qualifications set forth in Schedule (A) was entitled to be registered. The Society of Apothecaries were quite willing to co-operate with the other Medical authorities in forming a Conjoint Scheme for this division of the kingdom. Was there a better qualified Practitioner than one who held the licence of the Society of Apothecaries, together with the diploma of the Royal College of Surgeons. During a great number of years, those students who obtained the certificate of the Society had to the extent of 85 per cent. become Fellows or Members of the Royal College of Surgeons. What reason could be shown, or how was it consistent with public feeling, that this connexion should cease?

Dr. QUAIN, having been engaged a great deal in endeavouring to form a Conjoint Scheme, thought he ought to say that their endeavour had been as far as possible loyally and conscientiously to carry out the resolution of the Council, and they had succeeded so far that they had got the entire co-operation of all the bodies in England but one. It was not the fact that the Colleges had thrown over the Society of Apothecaries. The scheme which was agreed to originally was simply a scheme for the examination of general Practitioners. It was not a Conjoint Scheme, and it was a scheme which the College of Surgeons were not favourable to. The scheme was then put into the present form. The Apothecaries' Society raised several difficulties; they said it was a thing they could not join in; they withdrew, and of course afterwards no communication was made to them. It was for them to remove the difficulties.

Mr. BRADFORD was understood to dissent from Dr. Quain's statement.

Dr. QUAIN repeated that that was the true position of matters. The possibility of the carrying out of the scheme had been assailed on the ground of its illegality, but Dr. Bennett had told them that the most eminent legal advisers had distinctly stated it could be carried out. If the Apothecaries' Society were willing to co-operate, the College of Physicians would be only too glad.

Dr. ANDREW WOOD suggested that another effort should be made to include the Society of Apothecaries.

Dr. HUMPHRY thought justice had scarcely been done to the completeness of the scheme. It was a complete scheme as far as English Corporate Bodies could produce; and he thought if the Corporate Bodies beyond the border and on the other side of the Channel had done as much, the difficulty would have been very much reduced. He bore testimony to the general correctness of what Dr. Quain had said with reference to the Apothecaries' Society.

Mr. BRADFORD regretted very much that there should be a misunderstanding as to the cause of their retiring from the conference. The President of the College of Physicians declared the meeting closed, much to the surprise of the Apothecaries' Society, who expected that a discussion would have arisen as to the nature of the legal objections. The legal adviser of the Society had drawn up a formal opinion, and had raised the objections which had been stated; but there was nothing insuperable in those objections, nor did he (Mr. Bradford) ever suppose it was impossible to form a Conjoint Board.

Dr. STORRAR, as representing the University of London, felt he could hardly give a silent vote. He reminded the Council of the active part the University of London had taken in promoting this combination. He most heartily congratulated the Colleges of Physicians and Surgeons on the attitude they had taken, and desired to assist them in any way he could in making their Conjoint Scheme workable. The legal difficulties of the University of London had nothing to do with their approval of the scheme. It would, no doubt, be the fact that every single Medical graduate of the University of London would appear before the Conjoint Board. At any rate, whether the University of London was included or not, he felt they had public spirit enough amongst them to recognise the principle as a sound one, and to support it. He held the Apothecaries' Society in very great respect for the work they had done. They occupied an important place in the Medical education of the country, and he confessed it was with a pang that he saw the probability of their being extinguished. He did not think that the legal difficulties should stand in the way to what was proposed to be done; but most unquestionably the University of London, with all its respect for the Apothecaries' Society, could not refuse to come into the scheme upon the ground that the Apothecaries' Society was excluded.

Dr. THOMSON wished to move an amendment, with the view of conciliation—"That the Council approves generally of the Scheme for a Conjoint Examining Board for England proposed by the Royal College of Physicians of London and the Royal College of Surgeons of England, so far as it goes, but that the Council is of opinion that further exertion should be made to include all the Licensing Bodies in the scheme."

It being now six o'clock, the consideration of the resolution was postponed to the following day.

SECOND DAY.—FRIDAY, MARCH 1.

Dr. PAGET, President, in the Chair.

At the commencement of business the standing orders were suspended, to enable the Council to give priority to the consideration of the case of a student accused of forging a certificate. During the discussion on this subject the representatives of the press were excluded. On their readmission,

Dr. BENNETT proposed—"That the Registrar be directed to write to the solicitor, authorising him to take the necessary steps to prosecute the student alleged to be guilty of forging a certificate of having passed his preliminary examination at the Society of Apothecaries, by which he obtained admission on the Students' Register."

The motion was seconded by Dr. A. SMITH, and agreed to.

The adjourned debate on Dr. Bennett's motion was then resumed.

Dr. THOMSON, in moving his amendment, said he was far from wishing to delay the scheme proposed, or to modify the general expression of approval which the great majority of the Council seemed disposed to give to it. On the contrary, he was prepared to give it his approbation in no stinted terms, so far as it went. Still, under the circumstances in which they had been brought together, he thought it was not right that at this stage of the proceedings any expression of opinion

should go forth from the Council which would be an unqualified approval of a scheme which was defective in that it did not include the whole of the Bodies belonging to the English section. He had no wish to diminish by anything he said the approval which many would give to the scheme, but rather desired that the Council should look at it as part of a whole, and not merely at the benefits which this scheme undoubtedly would confer upon the Profession and the public if faithfully carried out. The Council was about to consider in what manner Joint Examining Boards might be constituted for each division of the country, for it was this question which was remitted to the different sections to consider. The Council was not yet sufficiently informed upon all the circumstances which had prevented the Apothecaries' Company from being included in the scheme, and the London University had not yet given its adhesion. He therefore desiderated much fuller information upon the reasons for expecting that the London University would join in the scheme. He made his amendment in no adverse spirit, but simply because he thought it essential to a right and jus expression of the opinion of the Council that it should consider the scheme proposed only as part of a general scheme. At the same time he was quite prepared to modify the expressions in his amendment in any way that might gain the general approval of the Council. For instance, he had used the word "generally," because he conceived that, good as the scheme was, it might before long be subject to some changes; but he did not care whether the word was retained or not. In communication with several members of the Council, he found that it would be possible to alter the form of his amendment, so as to secure for it a much more general approval and remove the objections that some had felt to it. If, therefore, the Council would permit him, he would withdraw his amendment and substitute for it the following:—"That the Council approve of the Conjoint Scheme of Examination submitted by the Royal College of Physicians of London and the Royal College of Surgeons of England, to which the Universities of Oxford, Cambridge, and Durham have given their adhesion; the Council has at the same time to express the desire that means may be found by which the University of London and the Apothecaries' Society may be enabled to join in the scheme so as to render it a complete scheme for a Conjoint Board for England."

This substitution was permitted by the Council, and the new amendment was seconded by Dr. PARKES.

The PRESIDENT said he did not quite see what Dr. Thomson intended to convey by his amendment. Did he mean to give the formal sanction of the Council to the scheme, or merely to express approval of it and wait till the next meeting of the Council to confirm it?

Dr. THOMSON said he saw the force of the President's objection, and would be willing to insert the words "and sanction" after the words "approve of."

Mr. QUAIN drew attention to the following paragraph in the letter of the Apothecaries' Society to the Council:—"The Society of Apothecaries are advised that, having regard to the 15th section of the Medical Act, entitling every person to be registered in respect of any *one* of the qualifications described in Schedule (A), it is contrary to the policy and the expressed intention of the Act, for the Colleges of Physicians and Surgeons to bind each other to abstain from the independent privilege of giving admission to the Medical Register. If this were correct he apprehended that all the Council had been doing, in trying to form a single board for each division of the Kingdom, would be useless, as contrary to the spirit of the Act. In another part of the letter it was said that it was a "purely gratuitous assumption" to allege that the Society of Apothecaries had stated legal difficulties "to prevent that Society taking part in the formation of an Examining Board in this division of the United Kingdom." He would in reply to this read a memorandum which had been made of what took place in October last when the Society of Apothecaries seceded from the other two Corporations:—"At a meeting at the College of Physicians, Mr. Upton (the legal adviser of the Society of Apothecaries) read an opinion by Mr. Archibald in reference to the legal powers of the Society of Apothecaries to take part in the Conjoint Scheme, and the result of that opinion was that there were three objections to the scheme, which rendered it legally impossible for the Society to join in it. These objections were as follows: 1. That the apprenticeship required by the Apothecaries' Act could not be set aside. 2. That the Society could not enforce an examination in Surgery in the case of candidates for its licence. 3. That the Society could not compel the payment of the proposed increased fee. As regards the first of these three objections, Mr. Upton stated that means might be devised to get over it, but not so in the case of the other two. After this statement the President of the College of Physicians, who was in the chair at the meeting, suggested, that as the legal difficulties of the Society of Apothecaries were insuperable, it was useless to try to continue the negotiations with that body. The representatives of the Society of Apothecaries agreeing with the President's remark, retired from the meeting, and the committee of the two Colleges then continued their negotiations for the scheme." This was a fair explanation of the retirement of the Apothecaries' Society. In another part of their letter the Society stated—"The Society deem it respectful to the General Medical Council to state that, acting upon the invitation of the Council to the Medical Authorities to concert a scheme for the constitution and regulation of a Conjoint Examining Board, the Society cordially co-operated with the Colleges of Physicians and Surgeons for the establishment of such a Board in this division of the kingdom, and so far with success that a draft scheme for an Examining Board, prepared by the committees of the two Royal Colleges and this Society, received the signatures of the Presidents of the two Colleges and the Master of this Society, and was recommended for the adoption of the governing bodies of the three Medical Corporations; but the Council of the Royal College of Surgeons having declined to sanction this scheme, other proposals were made, which have resulted in the present scheme of the College of Physicians and the College of Surgeons." It would be interesting to know what the actual facts were in regard to this. A draft scheme was agreed upon by committees of the three bodies, but it had reference only to the formation of a board for the examination of general Practitioners, and in it the Universities were wholly excluded. In the College of Surgeons, therefore, a resolution was come to that it was not expedient to agree to a scheme which omitted altogether the Universities. That was the reason why that draft scheme came to an end. There was also a difficulty about the constitution of the Examining Board. It was proposed that the three Corporations should appoint the examiners, but the Society of Apothecaries continually referred to what they must do in appointing examiners. The Committee of Reference in its present form was not then decided upon. It was, however, under discussion long before, when the Syndicates of the Society were present; and Mr. Upton, on their behalf, stated that the Society could not legally agree to such a committee, and, as a matter of feeling, would not do so if no legal difficulties stood in the way. There was a clause in the Apothecaries' Act of 1815 which required that every member of the Board of Examiners should be a member of the Society of not less than ten years' standing, and that was always a difficulty in the way of the Society of Apothecaries. They felt bound by this clause to require that the examiners in Medicine should be persons who had been members of the Society for at least ten years. Of course it could not be expected that the Universities would agree that their graduates should be examined in Medicine by any Examining Board when the selection was confined to certain persons—not because they were the best men in the country, but because they had been Members of the Apothecaries' Society ten years. Objections had been taken to the scheme by some members of the Council, on the ground that it was simply a union of two Corporations. If they could show in Scotland a union of two Corporations with all the Universities but one, and that one to come in as soon as the law would permit, he should be delighted to see it. In conclusion he expressed a hope that they would not go to the Government or to Parliament, but would have energy and firmness enough to carry the matter themselves. (Hear, hear.) When the Act of 1845 was passed there was then a strong Ministry (Sir Robert Peel's), and the Minister for the Home Department, who had charge of the scheme, was a strong man, in a Parliamentary sense (Sir James Graham). It was that Government which created the nineteen competing bodies, and placed the Profession in the difficulty in which they now found themselves. He would not, therefore, go back to the Government if he could help it to get rid of the difficulties which they had created. He would rather attempt to do it among themselves. They understood the subject, and the Government certainly did not. Neither would it be expedient just now to go to the noble lord at the head of the Privy Council. They would be very bad patriots indeed if they did anything to divert that nobleman's attention to Medical politics and away from the *Alabama* claims. (Laughter.)

Dr. ALEXANDER WOOD: I did not propose that.

Mr. QUAIN: But you read a paper to that effect.

Dr. ALEXANDER WOOD: That resolution was moved at the last meeting of the Council, and I moved an amendment upon

it, which was carried, and under which we have met here to-day.

Dr. BENNETT said he could quite confirm what Mr. Quain had said with reference to the Apothecaries' Company. He had the highest opinion of the gentleman who legally advised the Society; but he was at a loss to understand how they could have inserted in their letter the statements to which Mr. Quain had drawn attention. The objections raised by the Apothecaries' Company to the revised draft scheme necessarily obtained to the scheme now before the Council. With reference to that revised draft scheme, Mr. Upton pulled from his pocket the written opinion of counsel applied to by them with reference to the possibility of the Apothecaries' Society joining in that scheme, and the opinion was to the effect that there were legal difficulties in the way. These difficulties appeared to them to be insuperable. The President thereupon said, "It is quite clear that we need not discuss this matter further," and the conference broke up. The College of Physicians and the College of Surgeons then took up the scheme on their own account, and completed it in the form in which it was now brought before the Council. When Dr. Alexander Wood spoke somewhat contemptuously of the scheme as a small matter, he really could not have understood it. For the first time they had a junction of two bodies who agreed to give up their power of conferring a right to be placed on the Register; for the first time they had a scheme in which the Universities were capable of joining, and to which they had already received the adhesion of several Universities. Had anything at all proportionate to this been done in Scotland or in Ireland? There had not even been an approach to it. For the first time they had a scheme which rendered it imperative on every man whose name was placed on the register of the agreeing bodies to have been examined on all subjects; and for the first time they had a scheme in which the Board of Examiners was constituted, not necessarily of the Fellows or Members of the Colleges that were united. The Colleges and Universities united in this scheme had unanimously manifested a spirit of self-sacrifice which he had not yet seen on the other side of the border. They had voluntarily agreed to give up their rights as far as regards the Register and the Board of Examination, and they appointed a Committee who were to nominate the examiners, and through whom all the details of the examinations would be carried out. He therefore held that if the scheme should end in nothing but the amalgamation of the two bodies they would still have gone an enormous step in advance in the way in which the Medical Council were desirous they should go towards securing a uniformity of examination. Even in the event of none of the Universities nor the Apothecaries' Society joining, they would have a scheme which would certainly deal with a very large majority of the Practitioners in England. Ninety-eight or ninety-nine per cent. of the candidates would come before the Conjoint Board; therefore, however much in appearance they might seem to have failed to carry out a conjoint scheme for England, in reality they had gone a great way towards it. For these reasons he hoped that the Council would not hesitate to give their sanction to the scheme, quite apart from the question of introducing others, simply on the basis of its being a step in advance, and not a short or trifling step, but a great and important one. He was of opinion that the only way in which their friends, either in Scotland or Ireland, would eventually succeed, would be by doing something of the same sort. They would have to be contented with making gradual advances, and then by-and-bye they would be able to extend their basis and bring in body after body as facilities for doing so offered themselves. Thus ultimately complete schemes for the three kingdoms would be formed. No doubt the difficulties in Ireland and Scotland were very great, and he did not blame them for not having succeeded, but he did blame some of them for not having sent in notice of what they had done in a more formal manner. In the English scheme, if carefully looked at, it would be seen that there were all the elements of such a Board as the Council had long been looking for. The Committee of Reference, it was true, was not appointed by Government, but they would be appointed irrespective of the peculiar prejudices or proclivities of one or the other Board. The examiners would, no doubt, be selected from the best men that could be found in the kingdom, and the licences would be granted simply from the result of the examination. This scheme, then, ought rightly to come before the Council as a Joint Scheme for England, although at present it would not be said that they were prepared to put it in operation as a complete scheme for the whole of England. If the general feeling of the Council was that he should facilitate their proceedings by withdrawing his resolution, and allowing Dr. Thomson's amendment to stand as a substantive resolution, he was disposed to do so. Still he did not approve of tacking on to the end of the resolution the reference to the Apothecaries' Society and the University of London.

The PRESIDENT stated that he had received a letter from Sir R. Christison, the only absent member of the Council, dealing with the whole subject of Conjoint Boards.

Dr. Thomson's amendment was carried by 14 against 3. On its being put as a substantive motion,

Sir D. CORRIGAN moved, as an amendment—"That the Council, under the powers conferred upon it by Clause 19 of the Medical Act, approve the Conjoint Scheme of the Royal College of Physicians of London, and the Royal College of Surgeons of England, for an Examining Board."

Dr. A. SMITH seconded the amendment.

Dr. PARKES objected that the amendment was the same in effect as the original resolution.

The PRESIDENT: It is a competent amendment on what is now the motion before the chair.

Dr. APJOHN: I wish to ask Dr. Bennett to explain how far the Universities are co-operating in this scheme.

Dr. BENNETT: You have the replies of the Universities.

Dr. APJOHN said he had read the whole scheme from beginning to end, and found nothing of co-operation on the part of the Universities.

Sir D. CORRIGAN said in the resolution now before the Council there was a statement that the Universities had given their adhesion to the scheme, but the fact really was that they had not given their adhesion to it. The words they used were that they approved the scheme. He might approve of the formation of a joint-stock company, but it did not follow that he would join it and take shares. There was not a single word from the Universities stating that they would unite and become parties to the scheme, and give up their privileges as the College of Physicians and the College of Surgeons had done. The College of Physicians and the College of Surgeons gave up their privileges of conferring separate diplomas without a separate examination; was there a single word about the Universities doing so? He regretted in the beginning, and he still regretted, that the Apothecary question should have been introduced at all. It had no connexion with the subject on the paper. A private squabble between two Licensing Bodies had been brought before the Council, and had occupied their time the greater portion of two days. If three or four Bodies met in accordance with the suggestion of the Council last year, but did not agree upon a joint scheme, it was no business of the Council to go into the private squabbles of the disagreeing Bodies. Clause 19 of the Medical Act was perfectly clear and distinct: "Any two or more of the Colleges and Bodies in the United Kingdom mentioned in Schedule (A) to this Act may, with the sanction and under the directions of the General Council, unite or co-operate in conducting the examinations required for qualifications to be registered under this Act." It authorised any two or more Bodies to unite; but when two Bodies came before the Council and said, "We have taken a step in a right direction," while another Body came and said, "We are badly treated—we have been kept out," the Council ought never to have listened to the squabble, and never have allowed recriminating explanations. Suppose that the College of Surgeons of Ireland and the Apothecaries' Hall of Dublin united to issue joint certificates, what right would the College of Physicians have to interfere? None whatever. It was the concern of the two Bodies under Clause 19. Suppose, on the other hand, the College of Surgeons and the College of Physicians of Ireland were to choose to unite for the purpose of issuing a joint certificate, and the Apothecaries' Hall and Dublin University were to come forward and say—"We were badly treated; we had a right to come in," the Council would have no business to meddle with them. On turning to Scotland, when the case was before the Council of the College of Physicians and the College of Surgeons for a joint scheme, suppose the Faculty of Physicians and Surgeons of Glasgow had come before us and said—"We were badly treated;" suppose the University of Aberdeen had said the same, and the University of St. Andrews as well; if the Council departed from what was laid down in Clause 19, they would simply become umpires in private squabbles, the end of which no one could see. They had seen yesterday that representatives of the two Bodies might differ as to the meaning of papers.

The PRESIDENT: Don't you think you are making the matter much worse by dwelling longer upon it?

Dr. QUAIN: We were answering the request of the Medical Council to co-operate together, and an explanation was [illegible]

why we did not all co-operate, and that was the reason of this discussion.

Sir D. Corrigan said his point was that the Council ought not to have devoted a moment of time to that explanation. One phrase in the resolution was very vague. The Council was asked to express its desire "that means may be found" by which the Apothecaries' Society and the University of London might be enabled to join. By whom were these means to be found? Were they to be found by the Council? Were they to send the matter back for those Bodies to squabble over again? What they ought to do was to put aside the Apothecaries' Society and the London University, and simply ask themselves—"Is the application of those two Bodies, the College of Physicians and the College of Surgeons, in accordance with the Act of Parliament?" The application was within that Act, and the Council had no right to go into any extraneous subject, but simply to deal with it as an independent matter before them.

Dr. Thomson said he could see that there was an inaccuracy in the resolution, and as it was important that motions put before the Council should be accurate as to matters of fact, he wished to substitute the word "approval" for the word "adhesion." (No, no.)

Dr. A. Smith, in seconding the amendment, said it had been clearly shown that but a very slight approach had been made towards establishing a Conjoint Board such as had been contemplated by the Council, and Sir D. Corrigan's amendment expressed exactly what had been done, and no more.

Dr. Aclann thought it would be hardly right for the Council to come to a decision without hearing something from the representatives of the Universities. It had been stated that some of the Universities had given their adhesion to the scheme, and, in fact, were about to join in it. He absolutely repudiated any interpretation of that kind; such an idea never entered into the heads of his University, at all events; and no person in the least conversant with the way in which public business was transacted at Oxford would entertain the idea. No one could be responsible for the votes of a great body like the convocation of a University consisting of hundreds and thousands of persons, any more than the Government could be responsible for the votes of the House of Commons. It was a question of numbers. He could not prophesy what would be carried, but as to the way in which they came to their conclusions there was no question at all. When a proposition was submitted to them there was one thing perfectly certain—that they would vote *bonâ fide* upon a *bonâ fide* proposition; and any proposition would be certain to be lost about which there was the slightest supposition of any undercurrent or *arrière pensée*. What had happened at Oxford was this—they had voted that they entirely approved of, and consented to, this scheme; but, in order to make it possible for them to act upon that scheme, they must alter their statute. At the present time their examinations took place under certain laws, and next November the examination would proceed just as it did last year, unless the statute was altered; and if the Council voted the resolution to-day, the Oxford University would begin at once—in fact, they began long ago—to consider what would be their duty to the nation in the then altered condition of the University. Those who were not familiar with the conduct of the English Universities might not perhaps observe what would follow this Conjoint Scheme, and the discussion which had taken place had not yet reached the real, essential merits of the case. It was quite a misapprehension if any member supposed for a moment that this scheme was simply a scheme of the College of Surgeons and the College of Physicians. It was the scheme of all the English Bodies, except the Apothecaries' Hall. What would happen if the scheme was carried out? The University of Oxford would cease to confer degrees upon a pass examination, and would leave to the Medical Council the pass examination of all those who had an Oxford education. That was the way in which the University had always looked upon it, and in a certain sense the change would be enormous. Directly they bound themselves to this change they would have to consider what should be the nature of the University honours in respect to Medicine. It seemed to him that considerations of this kind were of much more significance than any of the arguments that had been addressed to the Council with regard to the amount of allegiance given to the scheme. The London University, he believed, had virtually in a certain sense acted on this principle from the time of its foundation. It had always taken the view that the University degree was a kind of honours degree, and to a certain extent that was the view which had been taken at Oxford for the past ten years. It was only because it was seen that it had been impossible for the College of Physicians and the College of Surgeons to draw out the scheme before that the Oxford University had not refused to approve of it, on the ground that they had not had sufficient time to consider it.

Dr. Humphry said it was clear from the reports sent to the Council that the Universities were co-operating in the scheme, and it was perfectly certain that the University of Cambridge was acting *bonâ fide* in the matter. The authorities at that University had considered the question in all its various stages, entered most carefully into every point, and made several suggestions which had been adopted. It was therefore not a scheme emanating simply from the College of Physicians and College of Surgeons, but it had emanated from the various Universities in connexion with the Colleges. The University of Cambridge was quite aware that in assenting to it, it would give up its privilege of admitting to the Medical Register. This had not only been the subject of consideration in the Syndicate, but it had been discussed openly in the Senate, and it was quite clear that if the scheme was carried carried out the University would henceforth not give its degree except to those who passed the Joint Board.

Dr. Embleton said the adhesion of the University of Durham to the scheme was complete and *bonâ fide*, and in every respect the same as the adhesion of the Universities of Oxford and Cambridge. It was not a mere approval, but an adhesion.

Sir W. Gull, on behalf of the University of London, said that for the last twenty years they had had before them the question as to how far the University could confer degrees that might be useful for practice in the country. They had set before them this great object—to show how Medicine should be studied, and to advance the study of Medicine in every possible direction. They had all felt that the object of the University was not at all contrary to the universal scheme of registration, but as a part of it, and as going before it; and they had been most desirous on all points to give their sanction to this scheme for one Examining Board. He therefore trusted that without any delay the Council would give their adhesion to the scheme brought before them. It was a very much larger scheme than those not acquainted with the practice of Medicine in England were at all alive to. It was the very largest scheme that could be brought forward as affecting the Profession, whether in England, Scotland, or Ireland, and he therefore hoped that they would at once approve of it.

Dr. Alexander Wood said Sir Dominic Corrigan had artfully (not using the word in a bad sense) directed the attention of the Council away from the main question before them, and if they were to agree to his proposal they would place themselves in a very awkward position; for they would be simply giving their consent to a scheme of junction proposed by two Colleges in London. No such question ought to be brought before them, for as far as he knew there was no request on the part of those Colleges to have the sanction of the Council to any contemplated union whatever. They would therefore be going beyond their functions to exercise the powers given them by Clause 19 of the Medical Act. The Council had requested certain Bodies to do certain things. In compliance with that request, certain answers had been laid on the table by the various Bodies in England, Scotland, and Ireland; and they were now required to express an opinion upon those answers—not to sanction the propositions which they contained under Clause 19, but to say how far they had fulfilled the request which was sent to them at the close of the session of last year. Taking this view of the matter, he was disposed to think that Dr. Thomson's motion was a perfectly legitimate one. They were entitled to say in what respects they thought the Bodies to whom they applied had succeeded, and in what respects they thought they had failed. He did not undervalue in the least the scheme which had been submitted to them. No one could do so who had watched the progress of the different Medical Bodies in England and knew the difficulties that had been overcome. He had the fullest sense of what had been done, and felt grateful to those by whose exertions it had been accomplished; but at the same time he thought it was right that they should express their regret that the scheme did not go still further. Of actual fact accomplished, there was nothing beyond the union of the College of Surgeons and the College of Physicians, with the adhesion of the Universities when they should get the law altered. It had been thrown out as an objection against the Scotch Bodies that their union made it optional with a man either to come before the united board or the separate board. He wished to tell his friends in London that they had yet to know whether the law would enable them to dispense with the power conferred upon their Colleges by Royal charter. He believed at the present moment, if the

College of Physicians of Edinburgh or the College of Surgeons of Edinburgh were to refuse to take a man upon trial who demanded to be taken upon trial, thas there were legal forms which could be used for their compulsion, and that they could be made to follow out their charter, and take the man upon trial by their separate Colleges. Therefore, having a wholesome horror of law, they had avoided doing that which might expose them to the pains and penalties of law. Still they had done their utmost to discourage the separate system and to make the joint system the general one. Ten years hence he should like to hear whether the London Bodies had not found out that they had made a mistake in attempting to make that compulsory which the law in its present state would not allow to be made compulsory.

Mr. Bradford: We understand from our legal advisers that these Bodies will not be competent to refuse to examine separately.

Dr. Quain: The College of Physicians and the College of Surgeons have taken the utmost pains to ascertain the legality of their proceedings, and they will refuse nobody, but the examination will be before such a Board as they appoint, and that will be the Conjoint Board.

Sir Dominic Corrigan's amendment was put to the Council and negatived, 7 voting in its favour, and 14 against.

Dr. Thomson's motion was then agreed to *nem. con.*

The following communication was then read from the Commissioners in Lunacy:—

Office of Commissioners in Lunacy, 19, Whitehall-place, S.W.
August 2, 1871.

Sir,—The Commissioners in Lunacy have recently had occasion to make inquiry respecting the validity of a Medical certificate for the admission of a patient into a licensed house in the county of Sussex, which was signed by a Dr. J. D. Blake, of Taunton.

In reply to the inquiries made by the Board, Dr. Blake had stated that he is not duly registered as required by the 16th section of the 21 and 22, cap. 90, and the Board now submit the matter for the consideration of the Medical Council, with a view to their considering what proceedings, if any, they may feel it their duty to take in the case.

The Board beg to point out that, by means of the certificate signed by Dr. Blake, a private female patient has been for several days illegally placed under confinement.

After a short discussion, the following motion was moved by Sir D. Corrigan, seconded by Dr. A. Smith, and agreed to—"That in reply to the letter of the Secretary to the Commissioners in Lunacy, dated August 2, 1871, the attention of the Commissioners be drawn to Clause 38 and Clause 40 of the Medical Act (1858), under which it is declared that no certificate required by any Act now in force shall be valid unless the person signing the same be registered under that Act, and that 'any person who shall wilfully and falsely pretend to be, take, or use the name and title of a Physician, etc., shall, upon a summary conviction for any such offence,' pay a sum not exceeding twenty pounds."

Dr. Gull, referring to the letter received from Sir R. Christison, proposed that it should be put on the programme for the next day.

Sir D. Corrigan said it would be setting a very dangerous precedent to print a letter from a member of the Council on the programme.

The President suggested that it might be printed in a separate form and sent round with the programme.

This suggestion was agreed to, and the Council adjourned.

Third Day.—Saturday, March 2.

The following communication from the King and Queen's College of Physicians in Ireland was taken as read, and ordered to be entered on the Minutes:—

King and Queen's College of Physicians in Ireland,
Dublin, February 28, 1872.

Sir,—I am directed by the President of the College of Physicians to inform you that this College, after a very careful consideration of the Report of the Conference, recently convened by the Royal College of Surgeons on the question of the advisability of forming a Conjoint Examining Board in Ireland, has arrived at the conclusion entertained in the resolution, thirty copies of which I have the honour of forwarding to you for the use of the General Medical Council.

I have the honour to be, Sir,
Your obedient Servant,
(Signed) J. Magee Finny,
The Registrar, General Medical Council. Fellow and Registrar.

King and Queen's College of Physicians in Ireland.

Resolution of the College of Physicians of February 24, 1872.

"The College, having considered the report on the subject of a Conjoint Examining Board, prepared at a conference of representatives of the several Medical Corporations of Ireland, is of opinion that there should be established an Examining Board or Boards, before which all candidates should present themselves who desire to be placed on the 'Medical Register' as qualified to hold public appointments, or as being legally entitled to practise Medicine or Surgery.

"The College is, however, not prepared at present to say in what manner such Examining Board or Boards should be appointed, or what should be the extent of the powers of such Board or Boards; whether confined to Professional subjects, or embracing examination in Arts and Sciences.

"The College has, however, no hesitation in expressing its opinion that any Central or Conjoint Board or Boards should have no concern whatever with the details of education, which should be left, as at present, to the several Licensing Bodies to arrange as they see fit, according to their own requirements and local adaptations."

A communication from Medical Professors in Scotland regarding Conjoint Examinations was also taken as read, and ordered to be entered on the Minutes.

225, St. Vincent-street, Glasgow,
February 29, 1872.

Dear Sir,—I send you herewith a document for presentation to the Medical Council at whatever you may consider the proper time, and to facilitate the reading of it I send thirty copies, which may be used for distribution among the members of Council.

It is likely that a similar document may reach you from Edinburgh, and perhaps one or two from other places, which may be considered identical for practical purposes, although we have not had time to send them together. I am, yours truly,

Dr. F. Hawkins. (Signed) W. T. Gairdner.

The undersigned having been informed of the recent proceedings on the part of the Universities and Corporations in Scotland, with a view to the formation of a Conjoint Board of Examination at the instance of the Medical Council, feel bound to indicate their dissent from these proceedings on the following grounds:—

1. The reason alleged for such proceedings in the first instance—viz., the attainment of "uniformity of qualification" (*i.e.*, a fixed minimum of Medical knowledge and skill on the part of candidates, secured through examinations conducted upon a precisely similar plan by examiners making precisely similar requirements)—appears to the undersigned an object neither desirable nor attainable.

2. Even were the object in question a desirable one, it evidently cannot be secured by the measures proposed. It is inconceivable that one Board sitting in England, another in Scotland, and a third in Ireland, each Board being of very complex constitution, and holding examinations in different places, without any concert or intercommunication, could possibly secure "uniformity" in any real sense of the word.

3. The immense number of candidates which would have to be examined in each division of the kingdom by the Conjoint Boards, would make it absolutely necessary either greatly to enlarge the number of examiners and to subdivide them into companies (of course with a still further loss of "uniformity" as regards results), or to work one set of examiners continuously day after day for long periods, with the practical effect of reducing their operations to a wearisome routine, incompatible with other Professional pursuits on the part of the examiners, and entailing great hardship upon candidates by want of accommodation with the sessional arrangements of the principal Medical schools.

4. The expense of examinations so conducted would be, if thrown upon the candidates, a very serious addition to the cost of Medical education and qualification, without any commensurate results as regards the security of the public.

5. The undersigned are decidedly of opinion that if, for the public security, an additional examination requires to be introduced, over and above the nineteen at present in operation, the cost of such additional examination should, in any case, not be thrown upon the candidates, nor yet on the existing Examining Bodies, but should be defrayed by the State, as representing the public.

6. The true object to be aimed at, whether in view of the public interest or that of the Medical Profession, is (in the opinion of the undersigned) *not* uniformity, nor yet a fixed maximum of qualification, but the watching and stimulating the existing Examining Boards, through a systematic inspection, conducted under the auspices either of Government or of the Medical Council.

7. The undersigned profess themselves willing and anxious to facilitate to the utmost a thoroughly efficient system of examination in the Universities and Corporations with which they are severally connected, and would gladly welcome the visits of any inspectors appointed on the part of the public to secure, as far as may be, efficiency on the part of all such Examining Bodies in the performance of their important duties. In the case of the Universities, such a system of inspection would be quite in accordance with the system already introduced by the Universities Act of Non-Professorial Examiners. The undersigned are thoroughly satisfied with this system, and believe that an extension of it would do good.

8. The details of such inspection should, in the opinion of the undersigned, be arranged between the State, as representing the public, and the Medical Council as representing the Medical Profession.

9. The undersigned desire it to be understood that, so far from objecting to a "conjoint" system of examination, they would cordially welcome any voluntary joint action of different boards, with the view of diminishing the labour and responsibility of examination, and the expense and trouble of it to the candidates. The objection that they entertain to the proposed system is, that it would not diminish either the expense or the trouble to the candidates, but would, on the contrary, increase both; while, by removing the responsibility of the practical part of the examination in some measure from the existing Boards, it would tend very much to reduce all Medical examinations to a low dead level, and would render it nearly impossible to improve them in accordance with the demands of advancing Medical knowledge.

February, 1872.

Robert Perry, M.D., Physician and Clinical Lecturer in Glasgow Royal Infirmary; Examiner on Chemistry and Clinical Medicine for the Faculty of Physicians and Surgeons, Glasgow.
Harry Rainy, M.D., Professor of Forensic Medicine, Glasgow.
Andrew Buchanan, Professor of Institutes of Medicine.
W. T. Gairdner, M.D., F.R.C.P. Edin., Professor of Practice of Medicine, University of Glasgow.
Geo. H. A. Macleod, M.D., F.R.S.E., Professor of Surgery, University of Glasgow.
John Young, M.D., L.R.C.S. Edin., Professor of Natural History, University of Glasgow.
John B. Cowan, M.D., F.F.P.S.G., Professor of Materia Medica, University of Glasgow.

A short discussion occurred on a suggestion from Dr. Bennett

that the following letter from Sir R. Christison should be read. It was finally agreed that it should be regarded in the light of a speech delivered.

Edinburgh, February 29, 1872.

My Dear Sir,—I do not know whether an absent Member of the General Medical Council has any claim to submit his views to the Council on any question; but in case the cause of my absence on the present occasion, and the radical importance of the principle and scheme of Conjoint Examining Boards, in place of the existing independent Boards, may be considered as constituting any such claim, I beg to be allowed to address through you the following observations to the Council:—

I had from the first misgivings as to the expected advantages from the scheme of a Conjunct Examining Board, with the powers and for the purposes contemplated for such a Board by the English Universities and the two Royal Colleges of England. These misgivings have been gradually growing until now, when I have come to dread that the Council has been upon a wrong course altogether in attempting to carry out a measure which will unnecessarily and vexatiously multiply the examinations of candidates, will destroy the stimulus derived from the individuality of the present system of Examining Boards, and will detract from the useful influence, and even endanger the prosperity, of the present flourishing Royal Colleges.

It must be acknowledged that the Medical Council, without resorting to any great pressure upon the several Licensing Authorities, has gradually accomplished improvements in Medical education, and has effected a near approach to uniformity, as well as to sufficiency in the examinations of the several Examining Boards, so far as regards the minimum standard of qualification for Medical practice. What remained for the General Medical Council to accomplish in respect of examinations were—1. To persuade the several Royal Colleges to combine their Examining Boards in each division of the kingdom, so that no man should be licensed who had not undergone a complete examination both in Medicine proper and in Surgery; 2. To induce the Universities to receive from without an adequate number of examiners, not only to attain the same object, an examination "*in omnibus*," but likewise to put an end to the outcry against candidates being examined only by their own teachers; and 3. To establish a proper inspection of examinations, under the powers conferred by the Medical Act upon the Council.

Had these measures been carried through, and had the practical instructions of candidates been rendered more thorough by insisting that all students should be brought, during at least the final year of their studies, in more close contact with diseases in clinical observation, we should never have heard of this new Conjunct Board or Boards, the beginning of which is to be the destruction of the principal existing Examining Boards of the United Kingdom. Nor is there now, so far as I can see, any obstacle which should prevent all these important details being carried out promptly under the advice of the General Medical Council, if it be allowed to exercise as formerly the powers which it possesses under the Medical Act.

But, instead of continuing to follow out its mission with independence, the Council, and also, I fear, the Government of the country, have yielded to what was at first perhaps not an unreasonable clamour from without, and have consented to give the weight of their opinion in favour of a system of examination, which in this country was hitherto a theoretical system, and in other countries has proved to be either mischievous or a failure—a system, namely, whose essence is uniformity and centralisation. The clamour in favour of that system may have been not unreasonable when first it was raised, because those who raised and joined in it could not see at that time any other way to correct existing faults. But it would be an unreasonable and foolish clamour now, when experience shows how much more easily the faults in question may be mended, without disturbing the existing order of things, and when it may be shown that the proposed radical remedy is a dangerous revolution.

For, in the first place, uniformity of examination by a single Examining Board is a mere delusion. No one, I presume, would dream of effecting a uniformity of examination in Medicine by imitating the very doubtful plan in regard to elementary education, as followed in some countries, distributing the same written questions for written answers from all candidates all the same day—in all schools, and in all parts of the kingdom—to the disregard alike of convenient seasons of the several schools, and of the varying methods of teaching and varying doctrines taught at each. There must be oral as well as written examinations for Medical candidates; both must vary at the different schools; and the time for them must vary, to suit the sessional periods of the schools. One board for each division of the kingdom is therefore an impossibility. In Scotland there must be three, in Ireland as many, in England probably twice that number. It follows that, whether these Boards meet in one city or in several, their examinations must be different, and any approximation to equality, which may be effected under the proposed new scheme for Conjunct Boards, may be also brought about as well through the influence of the Medical Council, by a proper understanding between the existing Boards of the country, as amended, or even as they now stand.

If, in the second place, it be insisted on that in each of the three divisions of the country the examinations shall be conducted really by only one Board, that Board will require such an enormous consumption of time for the purpose, even in Scotland and Ireland, but still more in England, as would be incompatible with the examiners following either Professional or Professorial pursuits. Examiners of the high position, in Professional and University life, of the present Examining Boards would not undertake such arduous and protracted duty. I leave the Council to infer what would be the class of men who would very soon come to constitute the examiners of a single Examining Board.

In the third place, a system of examination by such a Board as the New Conjunct one contemplates, conjoined as it is to be with the payment of a large fee to one or other of the Royal Colleges, will be very costly, as the amalgamating bodies evidently understand what they propose, that the fee shall be at least thirty guineas. This surely is an unreasonable proposition, if it be within the province of the Medical Council to effect equal improvement by simply improving the present system of examination by existing Boards. Medical education is costly enough already, considering the Professional emoluments to which it leads for nine-tenths of the members of our Profession.

In the fourth place, it is most unlikely that the Medical Profession, or the country at large, will long submit to the Royal Colleges thus drawing a large fee from every candidate, for whom they do nothing but give a title, which imparts to the generality of them no privilege. We have all had occasion to remark that our restless Profession is prompt to discover grievances, and energetic in demanding redress of them. Ten or twelve years will hardly pass under the new system without the question arising everywhere,—What do we or our sons get in return from the Royal Colleges for the large fee drawn by them, without doing any work for it? I confess I cannot answer that question, unless in the case of that limited proportion of Medical men who, living in the capitals, can make use of the museums and libraries of the Colleges. It will not be long, then, before we shall hear a renewed clamour against the Medical Corporations—the most formidable of all clamours, a monetary one.

But, in the fifth place, I have a greater objection than all to this new scheme. It will tend to take away from our existing Universities and Corporations that self-reliance, emulation, and enterprise which are the result of such being allowed to teach, and to examine according to its own constitution, and the "*genius loci*," and which are of precious value to the interests of education. The world is now awaking to the evils arising from the government of a country centralising, and reducing to one standard, either education or, above all, examinations. It is now acknowledged by philosophers that the intellect of France has been thus damaged. Germany, after trial, is giving it up. The very "Staats Examen" of Prussia, of which the contemplated scheme is an imitation, has been recently given up. It is no longer held at Berlin, but at each University where the candidate obtains his degree; and thus it becomes little else than a mere form. The evils of over-examining, of uniform examinations, and of centralised Examining Boards have been so convincingly demonstrated in Dr. Lion Playfair's address here on January 31 last, of which I understand that a copy was sent by him to every member of the Medical Council, that I can scarcely imagine anyone, who has diligently perused that address, without acquiring serious doubts as to the course which pressure from without the Council has induced us to try. But it is not too late to recede; and I would earnestly entreat the Council to consider whether it be not its wisest course to pause at the present stage, to beg from the Government two years' respite at most, and to set about diligently to so far combine, or rather to complete, the present Boards, that no candidate shall obtain such a qualification as will entitle him to registration without having been examined both in Surgery and in Medicine, —and also to perfect clinical instruction, by urging that every candidate shall have an opportunity of having a certain responsible charge of patients before he is allowed to appear for his final examination.

With these objects attained, I am satisfied that under a due system of inspection of examinations, the complex, costly, vexatious, and doubtfully expedient check, by the scheme of Conjunct Examining Boards, would become superfluous, and would be proved to be so.

I am, yours most truly,

To Dr. Paget, (Signed) R. Christison.

President of the General Medical Council.

Dr. Parkes said, as it appeared that Scotland had not succeeded in forming a Conjoint Board of Examination, he wished to ask the Scotch Members of the Council whether they had any hope whatever of such a Board, satisfactory to the Council, being formed in Scotland.

Dr. Macrobin said the Universities and Licensing Bodies were all at one with regard to the propriety of forming a Conjoint Board.

Dr. Andrew Wood said the Scotch Bodies had been very unjustly spoken of, as though they had not applied themselves in the best way they could to endeavour to conform to the wishes of the Medical Council. Last year the Medical Council met in July, and it was at the end of that month that the Registrar's letter reached the Scotch Bodies. As during August and September and the first part of October nothing whatever could be done in the schools, it was not till the middle of October that the Bodies had any opportunity of considering the question individually, and much later before they were enabled to come together in conference in regard to it. He believed, however, that every Body in Scotland did take it up in perfect *bona fides*. It was in vain to deny that there were a great many men in Scotland who did not approve of such a scheme; but, on the whole, the majority of all the Corporations and all the Universities did come to a resolution that it was desirable, if possible, to form a Conjoint Board. The circumstances in Scotland were very different from those in England. It was a comparatively easy matter to work out a Conjoint Examining Board in England, but even there, with their facilities, they had utterly failed; because at the present moment, instead of one Conjoint Board for England, there were actually three Licensing Boards left. England had had her difficulties, and had failed: Scotland had had her difficulties, but it could not be said that she had failed. She had merely not succeeded as yet. (Laughter.) England had produced an incomplete scheme, which was not a scheme for a Conjoint Board; but Scotland, with more honesty and frankness, had said: "We have been endeavouring to form a Conjoint Board; we have not yet succeeded, but we assure the Council we shall do our utmost in order to make a real Conjoint Board for Scotland." What were the difficulties in Scotland? In the first place, they had two Colleges of Surgeons —the College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. In the second place, the Scotch Universities were in a very different state from the English. (Hear, hear.) The degrees of the Universities in England were pitched very high. They were only attainable by men who were able to go to a considerable expense and undergo a very high test. The consequence was that Oxford, he supposed, did not give a dozen degrees in a year.

Dr. Acland: Not six.

Dr. Andrew Wood: In Cambridge I suppose you do not give many more.

The President: About twelve.

Dr. Andrew Wood said he did not know how many Durham conferred.

Dr. Embleton: About the same as Oxford.

Dr. Andrew Wood said there would then be twenty-four in all, which, with thirty or forty given by the University of London ——

Dr. Storrar: Not quite so many.

Dr. Quain: How many would they give if it were possible to pass the examinations on easier terms?

Dr. Andrew Wood said the degrees given by the Universities of England formed but a small drop in the bucket as compared with the College of Surgeons and the College of Physicians.

Sir D. Corrigan rose to order. The discussion was irregular, as there was no resolution before the chair.

Sir W. Gull moved—"That this Council expresses its regret that no scheme had been framed and submitted to the Council by the Medical Authorities in Scotland, for establishing a Conjoint Examining Board."

Dr. Alexander Wood thought it was the practice of the Council to allow a member to answer a question. Dr. Andrew Wood was answering a question, and it was not right to interrupt him with a motion.

The President said Dr. Alexander Wood was right in theory, but it was not worth while to waste the time of the Council by a long speech when time was so valuable.

Sir W. Gull said the object of the Council in meeting together was to get a better standard of education for the Medical men of the country. They had it before them that Sir R. Christison was of opinion that a Conjoint Board would not be advantageous in Scotland, his argument being that it would centralise and reduce to one low standard the education of the different divisions of the kingdom. For his own part, he believed the result would be the exact opposite of that. There must be a certain number of Medical men, and the standard by which they were measured must necessarily be somewhat low; still it should be a real one, and the object of the Council was to fix a practical standard of Medical tests in the different divisions of the United Kingdom. By the establishment of Conjoint Boards, Universities and those different bodies which took an interest in intellectual and especially Medical education would be relieved from mere technical details, and set free to develope, in a much higher degree, the intellect and the Medical knowledge of the students, according to the genius of the different bodies. They would thus not be compelled to make their teaching correspond to any necessity of Medical practice. He believed, therefore, that Sir R. Christison had taken a somewhat wrong view of the matter, and that it was desirable that in Scotland, as in England and in Ireland, they should strive to get a fixed, plain, practical, useful standard, whereby every man could be judged before he was permitted to practise at all. The Universities should then be encouraged to form foci of scientific learning. It was a matter of regret that the Council had not received a scheme for a Conjoint Board in Scotland. It was quite true the English Bodies had in some degree failed, but only in a very limited degree, and not at all to the extent which some seemed to think. The University of London went heart and soul in this matter, and would in a short time get rid of the technical difficulties. He had no doubt, also, that the Apothecaries' Society would feel themselves obliged to join in the scheme; for, if not, they would be left alone—they would have done their work. A higher organisation would come, and they would have to go. The Conjoint Board was for the Medical necessities of the age, because the Universities wanted to be free to advance, while the public must have a comparatively low standard. Fifteen years ago he besought the graduates of the University of London not to ask for a licence to practise. He said the University had nothing to do with pounds, shillings, and pence, or with the wants of the public. It should confine itself entirely to the instruction of the intellect. (Hear, hear.) He hoped, therefore, that Sir R. Christison would see that the functions of the Universities would be elevated by a Conjoint Scheme for passing men into the Profession. He did not wish to imply blame or censure, but his motion was an expression of regret. It had been said that it was a delusion to think there could be anything like uniformity, but there might be a great uniformity of pass examinations. They did not want uniformity in the Colleges or the different Universities, but they did want more or less uniformity in the pass examinations.

Dr. A. Smith seconded the motion. The Council, he said, had abundant evidence already before them that there were many differences of opinion among the authorities in Scotland in reference to the Conjoint Board. There was no scheme from Scotland before the Council, and it would be much better to take the opinion of the Council on the motion at once.

Dr. Andrew Wood said it was the most extraordinary proposition he had ever heard, that the opinion of the Council should be taken on this matter before Scotland had had an opportunity of speaking in its own defence. The Scotch authorities had been twitted, and challenged, and blamed, as if they had not been doing their best to produce a conjoint scheme, and the Council could not, therefore, refuse to hear what was to be said on the other side. He was glad that he had been interrupted when previously addressing the Council, for Sir W. Gull's speech had completely confirmed his idea that the groove in which the Scotch Bodies were moving was exactly that which the Council would approve of when it was carried out. When the numbers of those who pass the English Universities were counted, it would be found there were only some forty or fifty in the course of a year; but how was it with Scotland? There were about seventy graduates annually from the Edinburgh University, about fifty from the Glasgow University, and about thirty-six from the Aberdeen University. In consequence of the decision given by the Privy Council, all these Universities were not only instructors for degrees and conferrers of degrees, but conferrers of licences which were in competition with the licences of the Corporations. Now, if there were to be a Conjoint Board in Scotland in which all the Universities and all the Corporations were to come together and be examined at one common examination, such as that proposed for England, the result, instead of tending to raise the level of the University education, would depress it down to the minimum. On the other hand, if the ideas which prevailed in Scotland were carried out, that the Conjoint Board should only hold a practical pass examination, while the various Corporations and Universities should be left to examine on the whole of the subjects according to their respective charters, but not giving a licence, or a degree, or a diploma to any man who had not passed the Conjoint Board, then the wishes of Sir W. Gull would be realised, because each Corporation would be left according to its own genius to raise the level of its scientific attainments. This was what they had been aiming at in Scotland, and it would be a very serious matter indeed if they were to be told that they were to have a pass examination, every part of which candidates should have to pass. There were other difficulties to contend with in Scotland besides these. The ruling powers in the College of Surgeons, and the College of Physicians, and the Glasgow Faculty were not selected Councils consisting of a few men. Everything had to be decided by a meeting of the Fellows of the Colleges, and the consequence not unfrequently was, that the delegates sent to the Council were outvoted in the College. Notwithstanding these difficulties, he believed that in the course of another year it was very probable that an agreement would be come to by the Scotch Bodies. Whether the scheme agreed to would satisfy the Council or not he did not know, but he presumed the Council did not intend to lay it on a bed of Procrustes and cut it down to the proportions of the incomplete English scheme. There were some very good hints which the English Bodies might take from the Scotch propositions. By whom would the Conjoint Examination in England be regulated? By a committee of reference. Who were to constitute that committee? Would it consist of members from Scotland, Ireland, and England? Would it be an imperial committee or merely a local one? It would be a local committee for England. If this system were imposed upon Scotland and Ireland, and local committees were constituted in those countries, where would be the guarantee for the one standard that they were aiming at?

Dr. Acland: Clause 19.

Dr. Andrew Wood said the *raison d'être* of Clause 19 was this. When the Medical Act was passed there were, as there still continued to be, certain Bodies which conferred only one qualification, and the object of that clause was to enable such Bodies to give complete qualifications. If the Conjoint scheme had not secured that no man should be registered who had not a complete qualification, what would be gained? The English scheme had not secured this, for the Apothecaries' Hall would still be entitled to put men on the Register in spite of the Conjoint Examination. If a little more time were allowed, the Scotch Bodies would be able to concoct a scheme which would tend more to uniformity, and would be

more in consonance with the object at which the Council were aiming than the scheme proposed for England. To say to the Colleges and Universities "At once abnegate your functions, give up your power of examining in Surgery or in Medicine," would lower the position of the Colleges and Universities. The Colleges of Surgeons and Physicians were a part of the British Constitution; they were Bodies in consonance with the genius of the Constitution for the self-government of the Profession, and any measure that would destroy them would be hostile to the interests of the Profession. He therefore trusted the Council would pause before taking any steps which would have such an effect. His idea of a scheme for Scotland was—first, a Conjoint Board formed by the co-operation of all the Licensing Bodies in Scotland, whose examination every student should be required to pass before he should be entitled to be registered; secondly, an examination by this Board to test the candidate's knowledge of Medicine and Surgery, and his ability to practise them (of course, the extent of that examination would be a matter for consideration afterwards); thirdly, a committee of management, supplemented by members from England and Ireland, to decide on the principles and method of conducting the examination, none of the members of the committee being examiners; fourthly, the examiners to be appointed in equal numbers by the Universities and Corporations. By the English scheme the examiners were to be appointed by the Colleges on the nomination of the committee. What did that mean?

Dr. Quain: The College of Surgeons are required by their Act to appoint their own examiners; but they have given that power up, holding it merely as a nominal thing.

Dr. Andrew Wood said the fifth point in his scheme would be that the fee to be paid for this examination should not be more than was sufficient to cover the expense. In Scotland there was a very strong opinion that the student should as much as possible be relieved from the burden of excessive fees. They could not afford thirty-guinea fees, for Scotland was a poor country. (Laughter.) Besides, one reason for having thirty-guinea fees in England was that ten guineas should go to the keeping-up of the Hunterian Museum. Any measure which would largely increase the fees would be a movement in the wrong direction; but if the mere expense of the Pass Examination were required from the student, it might be so managed, by diminishing the sum drawn by the Colleges and Universities for diplomas and degrees, that the student should not be burdened more than at present. He hoped he had vindicated Scotland from the charge of being in any way recalcitrant to the wishes of the Council or indisposed to make the best endeavours they could to form such a Conjoint Examining Board as would be approved of by the Council.

Dr. Humphry thought Sir W. Gull's motion ought not to pass in its present form. It was right that they should express their regret that no scheme had been agreed to; but after what they had heard from Dr. Andrew Wood, and what they had read of the resolutions of the Corporate Bodies in Scotland, they ought to add their hope that a scheme would shortly be agreed to. He therefore proposed as an amendment—"That this Council, while regretting that no scheme for a Conjoint Examination has been framed in Scotland, yet, having considered the resolutions of the several Medical authorities in Scotland, sees reason to hope that in the course of a few months a scheme for a Conjoint Examining Board for Scotland may be matured to which this Council may be able to give its sanction, and urges the authorities to persevere in their efforts to effect the same." It was evident that all the Medical authorities in Scotland were agreed that a Conjoint Board should be formed, and the Council might fairly express its hope that ere long it would be formed. It was quite possible that the genius and character of the Scotch people might require somewhat different arrangements from those in England. The English authorities were not desirous that their plan should be taken as a model for Scotland; neither should Scotland think England had failed because the English scheme was not, according to Scotch ideas, perfect. The object the Council had in view was to reduce the number of examinations in the United Kingdom, so as to insure that every man who entered the Profession had passed a good and satisfactory examination, but they did not at present state what the precise nature of that examination was to be. They wished to strengthen the Medical bodies rather than to weaken them, and to maintain the independence of the Profession as exercised through the various Corporations, and he believed this would be secured by the Conjoint Examination. The examiners at Cambridge were at present always fettered in their questions by the knowledge that they must set a pass paper, and when released from the pass examination they would be able to attend more to the development of the intellect than they had been hitherto. The same would be the case, no doubt, with the other Corporations. He dissented most strongly from the views expressed by Sir R. Christison, for he believed the individuality and independence of the several Corporate Bodies would be increased instead of diminished by the proposed scheme. It was, therefore, most desirable that they should still hold open the door to Scotland and to Ireland, and still urge them to propose a scheme in order that they might not fall into the hands of the Legislature. It was most important for the individuality of the Profession that they should as far as possible govern themselves. Any profession which relinquished self-government would relinquish one of its highest privileges and greatest duties, and that was one reason why he would urge the Scotch authorities to persevere with earnestness and energy to secure such an examination as would be recognised and sanctioned by the Council.

Dr. Thomson seconded the amendment. He was extremely hopeful that the Scotch Bodies would ere long be able to come to an agreement by which a scheme acceptable to the Council would be framed. It was apparent, by what had fallen from Dr. Andrew Wood, that there was no essential difference of opinion among them upon the chief points of such a scheme, but the Profession at large had not in Scotland had the same means of forming an opinion as that which the Profession in England had had. He had always felt that they were committed to the formation of Conjoint Boards by the resolutions of the Council—(hear, hear)—and it was with that view that he had moved the resolution of February 26, 1870, upon which the whole matter rested. The Scotch Bodies, however, did not suppose it possible that any scheme would be acceptable to the Council which left out a single Body. If they had held the same view as the English Bodies, no doubt a scheme might have been already prepared. No one could regret more than he that the Scotch scheme was not actually before the Council, for up to the very last he had entertained the hope that, considering the essential agreement upon cardinal points, a scheme would have been arranged for the sanction of the Council.

Dr. Alexander Wood said he could vote neither for the motion nor the amendment. He stood in a somewhat enviable position, because he had never expressed any concurrence in the scheme as likely to prove beneficial to the Council, the Profession, or the student. When in 1870 Dr. Parkes brought forward his motion, he (Dr. Alexander Wood) stated that he thought there were several fundamental mistakes in the proposal, and he divided the Council upon the motion, asking time to consider it before it was pressed upon them. His amendment being lost, he declined to vote in the second division, and therefore he considered himself perfectly free from any pledge in regard to the Conjoint Examining Boards. From the documents sent in by the Scotch Bodies, it appeared that not a single one of them cordially assented to the proposal. The University of Edinburgh distinctly stated that it was almost under the compulsion of the strong desire expressed by the Council that they considered the question at all. The College of Physicians also distinctly said that they had no love for it, and it was only because a certain section of the Profession had expressed a strong opinion on the subject that they entertained it. The College of Surgeons of Edinburgh and the Faculty of Physicians and Surgeons of Glasgow took very much the same view. Then, again, after the Conference had met and honestly agreed upon a scheme, both Dr. Andrew Wood and Dr. Fleming were outvoted in their separate Bodies. These facts showed that there was no cordial feeling on the part of the Profession in Scotland in favour of the scheme. If the Council had done its duty years ago, such a scheme would have been unnecessary, and the present was an attempt on their part to make the Medical authorities discharge the duties of the Council. By the Act of 1858, powers were given to the Council to visit the examinations, and so to secure that none but those who were competent to practise should pass them. They allowed years to pass before they exercised that authority, and when they did begin to supervise the examinations they did it only in a half-hearted way. Had they used those powers effectually, the Profession would have been placed in a very different position long ago. A very great doubt existed, too, in the minds of some who had directed their attention seriously to the matter, as to whether it was really a good and advisable thing to have only one admission to the Profession. From the time when the Privy Council undertook to put the teachers of general education in Scotland on a Procrustean bed, and deal with them all after the same method, education began to decline, and the fear had been expressed

lest the same result should follow in the case of Medical education. The great evil was, not that there was any want of Medical appliances, but that the students came to their Medical studies utterly unprepared to profit by them. (Hear, hear.) If the Council really desired to raise the character of Medical education, they must take more interest in the preliminary examination, and be careful that the soil of the student's mind was so prepared that he could receive the seeds of Medical knowledge to some profit, and that those seeds might germinate and make him a scientific professor of Medicine. It was deeply to be deplored that there were in Scotland four Universities all issuing Medical and other degrees. There was nothing in the population or the condition of Scotland to require such an immense amount of degree-conferring power, and it would be for the interest of Scotland that the four Universities should be allowed to continue as teaching Bodies, but that there should be only one central University having the power of conferring degrees. The English Universities stood in a different position with regard to the Medical Bodies from that in which the Universities of Scotland stood. The Scotch Universities met the Corporations as rivals, as men who were striving to get rich by degrees. (Laughter.) How was this difficulty to be overcome? An idea was prevalent that there was an attempt on the part of many Licensing Bodies to undersell one another in the character of their examinations. He did not believe that this was true. He had seen a great many examinations, but had never witnessed the slightest attempt of this kind; rather he had noticed a sort of *esprit de corps*, which led the various Bodies to push their examinations as high as possible. His idea of the best course to be adopted was this. He would first separate altogether that amount of protection which the State was entitled to give its subjects from the rush into the Profession of unqualified persons, from the giving a degree or distinction by any Body whatever. The admission into the Profession should be entirely separated from the admission into the University or Corporation; and the scheme suggested in Scotland would do this, for the Conjoint Board would restrict itself exclusively to such an examination as would determine that the candidate possessed that minimum of knowledge which would qualify him to deal with the lives and health of her Majesty's subjects. There its powers should end. True, by these means one more examination would be added to the many already existing, but he could not see how this could be avoided. He had himself not much faith in examinations; but if examination was to be the test, then it seemed to him that what he suggested was the only proper mode. Let there be an entrance into the Profession by an examination which should be conducted by representatives of all the Boards; but at the same time let the different Bodies retain their own individual examinations, which would keep them free and independent. These views were of a much higher character than those on which the imperfect English scheme was founded, and he trusted before many months were over the Scotch Bodies would be in a condition to bring forward a scheme embodying these principles.

Dr. Quain said he could assure Dr. Alexander Wood that he had not the slightest conception of the English scheme—(laughter)—not the least in the world. The difficulties of Scotland would be entirely met by adopting the English scheme, which did not aim at uniformity, but competence. It did not add a new examination to those already in existence, but reduced them to one. It would not interfere with the proceedings of the other Bodies, but left them quite free, while, for the convenience and advantage of the young men entering the Profession, it said, "When you have passed a competent examination, you are sure of being able to join two Bodies if you wish." The Universities were equally free.

Dr. Parkes said the statements made by Dr. Alexander Wood had convinced him that Scotland was as far from forming a Conjoint Board as Ireland, and that was going as far as any human event could be. (Laughter.) The returns from the Scotch Bodies showed what an imperfect Board was shadowed out. Even the plan proposed by the University of Aberdeen, which was far the best, fell below what the Council would wish to see. In the University of Edinburgh the proposition for a Conjoint Board was most coldly received. From the letter received from Sir R. Christison it was evident that most formidable obstacles existed in Scotland. The Council must, therefore, be prepared to take some decisive steps in the matter, and positively insist on the formation of such a Board; otherwise, what would be the use of expressing regret. For three years the Council had been considering the question, and where had they got to? (Hear, hear.) He did not see that they were any nearer the formation of a Conjoint Board for Scotland than last year. Would they be any nearer next year?

Dr. Andrew Wood: You have not got it in England.

Dr. Parkes said at all events they had in England a substitute for it for the time. He hoped the Council would do something more than merely express regret. It appeared to him that they had done all they could do, and there was nothing left but to proceed by the aid of the Legislature.

Dr. Andrew Wood: You are going to threaten us?

Dr. Parkes said he did not call it a threat. The letter sent by Sir R. Christison did not really apply to the case before them. Their object was to prevent improper men from entering the Profession, but Sir R. Christison had always doubted whether improper men did enter the Profession, and had never thoroughly realised the fact that men who ought never to be admitted were stepping into the Profession, owing to the negligence of the various Licensing Bodies.

Dr. Storrar said, at a former meeting of the Council Dr. Alexander Wood had moved "That a meeting of the General Medical Council be held, early in 1872, to receive the proposals of the Bodies for Conjoint Examinations, and to consider whether any or what steps should be taken to carry out the resolution of the Council in favour of such examinations. Judge, then, of his (Dr. Storrar's) astonishment when he found Dr. Alexander Wood coming forward as a free lance, stating that he never had any sympathy with these proposals. He, however, thought with Dr. Wood, that there was in Scotland too much degree-conferring. In England the degrees of the Universities were conferred with a sparing hand, for Medical degrees were considered honours raising the holders above the mere rank and file of the Profession. (Hear, hear.) In Scotland, however, the case was different, and Dr. Andrew Wood seemed to look upon it as a merit that so many degrees were conferred.

Dr. Andrew Wood: Never. I look upon it as a blot.

Dr. Storrar said the system pursued in Scotland was very like a Dutch auction.

Dr. Thomson: I believe there is no truth whatever in the statement that the University of Glasgow is trying to make money by degrees. I object to these remarks.

Dr. Macrobin: So do I.

Dr. Alexander Wood: I rise to a point of order. A gentleman has said there is no truth whatever in the statement I have made. Do you allow that expression to pass?

Dr. Thomson: I deny it. I say they are not; but I am ready to substitute other words.

Sir D. Corrigan: Dr. Allen Thomson said there was no truth whatever in the statement made by Dr. Alexander Wood.

Dr. Thomson: If it is agreeable to the Council I am ready to substitute the words that I deny that the Scotch Universities are doing so.

Dr. Alexander Wood: What I said was this, that they were striving to get rich by degrees; and I insist that the language used by Dr. Thomson be withdrawn. I may be mistaken, but certainly Dr. Thomson has no right to use the words he did use. When the case of the Edinburgh Universities was argued before the Privy Council, the great argument used was that they could not afford not to become Licensing Bodies, because their money interest would suffer; and it was in reference to that argument that I used the expression that they were striving or endeavouring to get rich by degrees. Under these circumstances I think you can scarcely expect me to retract the expression; but if you think there is anything unbecoming the character of this Council in the expression, I am ready at your request to withdraw it, not otherwise. Still, I must say, in all the debates at which I have been present I have never heard such an expression used as Dr. Thomson used.

Dr. Thomson: I have so far withdrawn it that I simply deny that the Scotch Universities are striving to get rich by degrees.

The President: After Dr. Wood's explanation, and Dr. Thomson's withdrawal of the offensive expression, nothing more need be said about it.

Dr. Storrar said Dr. Alexander Wood had commented in rather strong terms upon the indisposition of the Council to promote preliminary education. Was he the only gentleman who had taken an interest in preliminary education in the Council? Were the representatives of Scotland, even, the only gentlemen who had taken an interest in it? Did Scotland stand conspicuous for her zeal in the cause of preliminary education? At the last preliminary examination at the College of Surgeons, somewhere about 50 per cent. of the candidates were rejected. That was the way in which England dealt with the preliminary examination. Dr. Alexander Wood, again, said that the Council had gone into the inspections in a half-

hearted manner. That might have been the case in Scotland, but on the part of Dr. Sharpey, Mr. Cæsar Hawkins, and himself, he could assert that they had entered on their work in a whole-hearted manner. By all means let the independence of the several Bodies be maintained—and the Council did not for a moment desire to interfere with it—but, leaving out the higher developments of Medical study and Medical competency, there was a certain requirement which should be imposed upon the rank and file of the Profession, and steps should be taken to secure that the competency, as far as it went, was thorough. Any proposal from Scotland which did not contemplate a complete examination from the commencement would not receive his consent.

Dr. Andrew Wood: Then you will never get it.

Dr. Storrar said it was, then, well to know it. It had been admitted by members of the Council that the difficulty was a money one.

Dr. Andrew Wood: I never admitted that. Money was never mentioned.

Dr. Fleming: Never, never, never.

Dr. Storrar said he was glad to hear it repudiated. As to the objection that Scotland was a poor country, why that was quite a farce. There was no richer district in these islands than the great centres of population in the Lowlands.

Dr. Andrew Wood: Look at the students in Scotland.

Dr. Storrar said they were poor, because there was no temptation offered for a higher class of men to come into the Profession. At all events, he should be utterly dissatisfied with a mere union of the Scotch Bodies for the purpose of clinical examination.

Dr. Fleming said it was evident that, however much the representatives of the Corporations desired to be loyal to the Council, there was no cordial feeling in favour of the scheme on the part of the Profession generally. If it was the opinion of the Council that in Scotland a competition downwards was being carried on, it was their duty to send out competent inspectors to supervise and report on the manner in which the examinations were conducted. The feeling in Scotland against the change would rather be strengthened by what had taken place at the Council; but for his own part he should loyally use his best endeavours to effect the object which the Council had at heart. Dr. Quain had said that there would be no difficulty in adapting the English scheme to Scotland, but he must have forgotten the peculiar position of the Scotch Universities. It was to be regretted that the privilege of licensing was conferred on the Scotch Universities, but, as they had a hard struggle to obtain it, they would not give it up.

Dr. Macrobin said the University of Aberdeen had entered very cordially into the matter, and all his colleagues were at one in reference to an examination almost identical with that proposed in the English scheme. (Hear, hear.)

Sir D. Corrigan said he had paid great attention to the debate, and the conclusion he had arrived at was that he could vote neither for the motion or the amendment. He could not vote for the amendment, because he could not see that there was a reasonable hope that the Conjoint Scheme would be carried out in Scotland. Dr. Humphry had talked about opening the door to the Irish and Scotch Bodies, but Ireland did not want a door opened. (Laughter.) Dr. Parkes had insisted on decisive steps being taken. He had proposed decisive steps once before in the case of the Queen's University, but the Queen's University quietly held up its hands, and said to Dr. Parkes, in the words of Shakespeare, "Come on." (Laughter.) Did he ever come on? (Renewed laughter.) He did not. Let him, then, take decisive steps—such as those he took against the Queen's University. (Laughter.)

Dr. Humphry's amendment was negatived by a majority of 1, and the original motion was carried by 16 against 1.

The Council then adjourned.

Fourth Day.—Monday, March 4.

The Council re-assembled at two o'clock.

The following letter from Dr. Sanders, of Edinburgh, was read:—

11, Walker-street, Edinburgh, March 1, 1872.

Sir,—I have the honour to request that you will present to the General Medical Council the enclosed memorial drawn up by Professor W. T. Gairdner, of Glasgow, with reference to the proposed scheme of National Conjoint Examining Boards.

The enclosed paper has been signed in Edinburgh only; and it is proper I should state that no general or extensive application for signatures has been made. I had neither time nor opportunity for doing so, even if it had been necessary. The names appended are those of persons whose opinions I had previous reason to believe were in accordance with the views expressed in the memorial.

I have the honour to be, Sir,
Your obedient Servant,
(Signed) William R. Sanders.

To the Registrar of the General Medical Council.

The following signatures were attached to the copy of the memorial sent from Edinburgh:—J. H. Balfour, M.D., F.R.S., Professor of Medicine and Botany and Dean of the Medical Faculty, University of Edinburgh; Alexander Crum-Brown, M.D., D.Sc., F.R.C.P. Ed., F.R.S.E., Professor of Chemistry in the University of Edinburgh; William Turner, M.B. Lond., Professor of Anatomy, University of Edinburgh; T. Laycock, M.D., Professor of Practice of Medicine, University of Edinburgh; Alexander R. Simpson, Professor of Midwifery and the Diseases of Women and Children in the University of Edinburgh; William R. Sanders, M.D., Professor of General Pathology and Clinical Medicine, University of Edinburgh; C. Wyville Thomson, LL.D., D.Sc., F.R.S., Professor of Natural History in the University of Edinburgh; Douglas Maclagan, M.D., F.R.S.E., Professor of Medical Jurisprudence and Medical Police, University of Edinburgh; Robert Bowes Malcolm, M.D., F.R.C.P., F.R.S.E.; D. Argyll Robertson, M.D., F.R.C.S.E.

It was agreed that the letter should be printed on the Minutes.

Conjoint Board for Scotland.

Dr. Parkes moved—"That in case the Medical Authorities in Scotland have not succeeded in forming a proper scheme for the formation of a Conjoint Board for Scotland by January 1, 1873, the Council will endeavour to obtain a legislative enactment under which a Conjoint Board for Scotland may be constituted." He said that, first of all, he would ask the Council why they should hesitate about going to the Legislature? Five or six years ago there were endless meetings of the Council on the subject of fresh legislation. A committee was appointed, and eventually the President was requested to see the Home Secretary to ask him to bring in a Bill, and the members of the Council often complained that the Home Secretary had not stirred with sufficient alacrity in the matter. Therefore, it would be extraordinary if the Council, after having endeavoured to force on legislation in this matter, should now take an opposite view and endeavour to avoid it. But he would ask the Council to remember the exceedingly pertinent question put by the Government with regard to registering half-qualifications. With reference to Lord De Grey's Bill, the Council had passed resolutions affirming its principle, and promising to aid the President of the Council. Therefore, was it likely that the Government would drop this matter? Was it not more likely that if the Council took no action, the Government would by-and-by urge forward measures which the Council would not be able to control? Surely it was the part of wise men to take the initiative, and try to control the conduct of the Government in this matter. The next question that he would ask the Council was, whether there was now any hope of a Conjoint Board being formed in Scotland without the aid of legislation? He thought no member of the Council could answer that question except in the negative. (Oh, oh.) He said so on account of the opposition which had arisen in Scotland against the scheme. Two members of the Council had endeavoured to carry out the system of consolidated examinations, but were actually outvoted in their own Colleges.

Dr. Andrew Wood: Not on that point.

Dr. Parkes said, if that were not so, he would withdraw the observation; but he still contended it would be impossible to form a Conjoint Board in Scotland without the aid of legislation. (No, no.) Then could anyone point out the way? Sir William Gull's motion gave a little more time to Scotch Bodies; but what was the use of that? It was now eight years since facts were brought before the Council proving that some of the Licensing Bodies were admitting perfectly unqualified men to the Profession. The returns from the Army and Navy Medical Service showed that year after year the same thing was going on. Six years ago the Council instituted the visitation of examinations, and he did not mean to deny that the examinations were really improved; but no one who knew anything about these examinations would contend that they were an efficient remedy for the evil—in fact, they had failed in their particular object. (No, no.) They had failed partially, at all events. Four years had now passed since this scheme of Conjoint Boards was brought before the Council, and, with the honourable exception of England, nothing had been done; and even in England, though the scheme was a very admirable one, it was far from being so perfect as the Council would

desire. Sir Dominic Corrigan had reproached him with saying that he was always wanting the Council to be doing something vigorous, and he accepted that reproach. He thought the Council should speak out firmly and boldly what it desired, and not go on year after year entreating and yet finding their remonstrances unattended to. Sir Dominic had also alluded to the case of the Queen's University. He (Dr. Parkes) would only say that that was a case in which the Council had been entirely set at defiance. The Queen's University being asked as to its having offended against one of the points most earnestly insisted upon by the Council with regard to the preliminary examinations, returned first only an evasive answer, and finally no answer at all. The reason why they did not go to the Privy Council with a complaint against the Queen's University was, because it was probable that on the letter of the law, though not according to its spirit, the Council would lose the day, and it certainly did not seem desirable that, upon the first occasion of the Council appealing to the Privy Council, it should not be able to carry its point. After all its attempts to form a Conjoint Board, it was impossible to say that the Council would be doing its duty to itself, to the Profession, and to the public at large, if it did not seek the best method of cutting this Gordian knot, which certainly would never be untied.

Mr. Hargrave seconded the motion.

Dr. Andrew Wood said that he wished Dr. Parkes to understand that Scotland would not be dragooned into taking action. Scotland would judge for itself what was right, and, whilst it would be convinced by reason and argument, it would never yield to a pistol presented at its head. (Laughter.) A great deal had been done during the last eight or ten years in improving the status of the Profession; and although Dr. Parkes said that the visitation of examinations had proved a failure, it was not the case in Scotland, where a very great improvement had taken place. As to the Army and Medical Board (which seemed to be constituted as the infallible test in England of what is good), Mr. Busk, one of the examiners of that Board, had told him that during the last few years a vast improvement had taken place in the qualifications of those who came before the Army Board. If they were to have legislation, let legislation come; the Scotch did not fear it, nor did they oppose the last Bill that was brought into Parliament, upon which they were almost all agreed. Therefore, if Dr. Parkes thought that they were to be forced into this scheme by the threat of legislation, he would find himself grievously mistaken. Why was Scotland to be the *bête noir* with regard to this matter? Had they formed a Conjoint Board for England that was worthy of imitation? As to the great evil of diplomas being registered which only had regard to one part of Medicine or Surgery, the Conjoint Board for England perpetuated that by leaving out the Apothecaries' Society, which would still continue to give diplomas for Medicine only. The efforts in Scotland to form a Conjoint Board had been sincere and earnest; and were they to be told that, if they exercised the abilities and judgment they had in considering what kind of Conjoint Board ought to be formed, they were running counter to the Medical Council? English members might think that their plan was the best, but they ought to give the Scotch members credit for the same conscientiousness and desire to do what was right when they brought forward a plan which left the Licensing Bodies certain powers with regard to their examinations, their diplomas, and degrees—a plan which did not degrade them from their previous functions—a plan by which they gave up the power of registering the degrees and diplomas until a man was subjected to a practical examination. What was it that it was necessary to find out by examination? Surely it was that a man should be competent to practise; and by their examinations the Scotch members contended that they had a sufficient guarantee that men were tested as to their competence to practise. The motion of Dr. Parkes was a very invidious one to begin with, and, moreover, it would have just the opposite effect aimed at by its mover, because it would only tend to prevent the Scotch Bodies from continuing to take an interest in forming a Conjoint Board. Therefore he was of opinion, after what had passed on Saturday, that if the motion of regret that they had not been able to succeed was followed up by the mild and courteous motion of Sir William Gull, it would be the natural corollary of what was done on Saturday. The Scotch members would all be prepared, he believed, to vote for Sir William Gull's motion, and they would endeavour to prepare a scheme for such a Conjoint Board as might be presented to the Council. Whether it would be approved by Dr. Storrar he did not know; but it did not matter one pin—for if a good honest scheme were presented and refused, then let the Council bring in a legislative enactment, but do not let them at this stage bring forward motions by which a slur was thrown on Scotland. Ireland could speak for itself, and Scotland could speak for itself. Let them recollect its emblem and its motto—*Nemo me impune lacessit*. No more loyal men to the Council were to be found than the Medical authorities in Scotland, but they must not be degraded into mere endorsers of what was proposed in England. (Cheers.)

Dr. Bennett regretted that Dr. Andrew Wood had not spoken in a more conciliatory tone. He was quite satisfied that the Scotch members were anxious to carry out the views of the Council, and that their difficulties were very much greater than those experienced in England. At the same time he thought there was some foundation for the dissatisfaction felt on the part of some members of the Council that Scotland had not proceeded further, and had not yet fully grappled the whole scheme; but they were beginning to understand it more fully than they did at the commencement of the session, and he believed that in the course of a few months they would be able to bring up something with which the Council would be satisfied. It would be well not to be continually throwing in the teeth of the Council the perfection of the English scheme. It was not expected that the Scotch scheme would be a perfect scheme; but if they would only bring forward one as nearly perfect as the English, it would be carried as unanimously. He hoped that Dr. Parkes would see it his duty to withdraw his motion, and to allow Sir William Gull's to take its place as a substantive motion, for he felt sure that it would meet with the general concurrence of the Council. With reference to what was said about the one qualification of the Apothecaries' Company, it was perfectly true that such qualification was registered. But what would it be worth by-and-by? Men must go for a double qualification, and to get that they must come to the Conjoint Board; so that in that respect the scheme would be a complete scheme for England.

Dr. Storrar said that Dr. Parkes could not be more earnest than himself in his desire to secure these Conjoint Examinations. At the same time, he felt persuaded that it was no use entertaining the idea of proceeding by Bill in Parliament, because the Parliamentary list of business was so crowded that there was very little chance of Medical legislation. Certainly no Bill could succeed in Parliament which had not the support of the Government, and he did not think from past experience that the Government would give its support to any measure of Medical reform which had not received a considerable amount of Professional unanimity. If a Bill were introduced this year or next year to which the Scotch Bodies were opposed, the influence of the Scotch Corporations and Universities would certainly prevail against the passing of that measure by the House of Commons. He would therefore urge upon the Council to do what they could by persuasion, by influencing public opinion, by enabling the Professional Bodies in Scotland, Ireland, and England to see what was the great object to be accomplished in the interest of the Profession; and if they went on hammering in this legitimate way upon the convictions of the public their success was certain. It had been asked, What was the good of having a Conjoint Board in England, if there was not one in Scotland and Ireland? The reply was, That there was a great advantage if, in a country which embraced twenty or twenty-two millions, and which furnished by far the widest field for practice in these realms, they could set up an effective pattern of Conjoint Examinations. Another objection was, that if the standard was very high men would go off to other Bodies; but he was not afraid of that. Good men would always prefer the best examinations within their reach; and if it should happen that the scum of English schools found their way to other schools——

Sir Dominic Corrigan: Scotland or Ireland?

Dr. Storrar would not venture to say whither; but if such turned out to be the fact, then he would say that England would be the gainer, and there would be such a prestige given to English qualifications that the public would make a still broader distinction than they do now between English qualifications and qualifications derived from other sources. Having a little Scotch blood in him, he occasionally expressed himself in impetuous terms; but, at the same time, he was free to acknowledge that, although improvement had been slow, yet it was real. The Profession was in a much better condition than in 1858. No one who was aware how necessary it was in all affairs to carry the full swing of public opinion with them would doubt that they must act in the spirit of the old proverb—*Festina lente*. Whilst, therefore, he was most eager to promote the object Dr. Parkes had in view, he could not vote for the motion, but would support Sir William Gull's,

which he thought applied just that amount of courteous pressure on the Bodies in Scotland which would accomplish the object.

Sir WILLIAM GULL thought it would save the time of the Council if he proposed his motion as an amendment. He sympathised with Dr. Parkes very much as to the desirability of moving in the direction of a conjoint scheme; in fact, the time had passed for any argument as to its desirability. The point now before the Council was the difficulties peculiar to Scotch and Irish Bodies. Some Professors spoke of an additional expense being entailed on the students without any commensurate result with regard to the security of the public. In answer to that, he would say that the conjoint scheme was not for the sake of the Profession at all, but for the public, and that where an examination was for the safety of the public, the public should pay for it. Those who opposed the scheme did not seem to be quite alive to the idea of the Council as to a Conjoint Board, which idea was to set Corporations and schools free to teach many things which they cannot teach until they are released from the trammels of elementary things. This had been the guiding thought in the proceedings of the London University. Years ago, when the students of the London University were anxious to get the licence to practise with the degree, he objected to it, and thought that that should come in another way, because Universities had nothing to do with the mere practice of Medicine so called, but they had to do more with propagating a knowledge of the science of Medicine in its true sense. Another objection, which came from Edinburgh, had regard to the immense number of candidates. He had inquired from two of the members as to the number that would be likely to pass yearly in Scotland, and found that the maximum would not be above 250. Surely 250 candidates might be examined in a year without very great difficulty. In all departments of knowledge Scotland had taken a very leading part, both in Medicine and general science; therefore England could not put itself forward as leading the way at all. He had been much struck with the high position which men coming up from Ireland and Scotland took in the Civil Service examinations of the country, and he had no doubt that their Medical training was even superior to that of average English Medical students. His amendment, therefore, could not by any possibility be understood as any slur upon Scotland. He would now move—"That a notice of the resolution of March 2 be sent to the Medical authorities of Scotland, together with a statement that the Council still urges upon them the desirability of a Conjoint Scheme of Examination, and expresses the hope that such a scheme as the Council can sanction may be submitted to the Council by January 1, 1873."

Dr. HUMPHRY seconded this. He said that he was quite of opinion that they were more likely to attain their object by a courteous pressure upon the several Licensing Bodies than by going to Parliament, and he thought that the Council would show not only firmness but dignity by passing a resolution of that kind quite as much as by going to Parliament for a compulsory measure. To what extent the Conjoint Examination should go—whether it should be supplemental to other examinations, or whether, as was proposed in England, it should take the place of them—should not at the present time be discussed. The hope was that the Scotch Bodies would endeavour to frame such a scheme of examination as they thought best for Scotland. He regretted that Dr. Andrew Wood reproached England for the imperfection of its scheme. That very imperfection might assist Scotland in carrying out the same project; and, notwithstanding all the objections urged by various individuals, he would hope that the scheme would prove a success.

Dr. ALEXANDER WOOD drew attention to the different constitution of the Medical Bodies in Scotland, compared with those of England, every member of the Bodies in Scotland taking a part in the deliberations and having a vote, whereas in England the great bulk of the members had merely a nominal connexion with the Bodies to which they belonged; and he said that the members of the Profession in Scotland would naturally feel all the more alarmed on that account, for the interest of the Bodies with which they were so closely identified. He had listened with pleasure to some of the speeches which had been made, but a speech made even with Sir William Gull's well-known ability would never have equal weight with the report of a committee of the Council, to which he proposed that this matter should be submitted for careful consideration. Such a committee might meet with members of the Scotch Bodies, and endeavour to persuade them to come to the point at which they had arrived in England, and even to go a little further, and have a scheme which might be even more thoroughly satisfactory to the Council than the English scheme.

Sir D. CORRIGAN characterised Dr. Parkes's resolution as exceedingly ill-judged, and the language used in introducing it as still more ill-judged. With respect to the Queen's University, in the first place, he would give as distinct a denial as courtesy would permit him to the statement that that University had evaded giving an answer to the Council's letter in the first instance; but he fully admitted that finally it gave no reply, simply because it scorned the attack. Two years had passed over, and now Dr. Parkes had got himself into the same scrape with the Scotch Bodies. Dr. Bennett seemed to think that he had got Apothecaries' Hall into a trap, but the fact was that a man who had got his licence from that Society had simply to go up to Scotland and present himself to the College of Surgeons. They had been informed that whatever took place the College of Physicians and the College of Surgeons in Edinburgh must continue to give their separate licences; therefore, what became of the whole idea of a Conjoint Scheme under such circumstances? It was clear that Dr. Storrar had not much practical experience with regard to Professional appointments, because he had fallen into a good-natured, romantic error—namely, that by acting upon the motto, *Festina lente*, the public would at length find out that the wonderful Conjoint Scheme of England would be valued so much that the people who had the giving of appointments would not give those appointments to men coming from any other part of the United Kingdom—that is to say, from Scotland or Ireland. With regard to that, all he could say was, after a very extensive experience, that in Ireland, at least, boards of guardians did not care one penny about the superior qualifications of a man who went before them as a candidate, with the single exception of a case when a board of guardians happened to be in such a distant part of the country that they could not get any Medical man unconnected with the board to attend themselves when they were sick, in which case they looked very sharply after the qualifications of the man; but where it was in a large district, or a populous city, boards of guardians never cared a penny about the qualifications. Some years ago he gave evidence before a committee of the House of Commons, and he would repeat it now, that if he wished to be successful in seeking such an appointment, he would rather have the qualification of a bank discounter than the qualification of Hippocrates. (Laughter.)

Dr. QUAIN reviewed the points contained in Sir Robert Christison's letter, and contended that the arguments in the letter were based upon an entire misconception of the English scheme.

Dr. FLEMING thought that the energy and common sense of the Scotch would carry them through the difficulties.

After some remarks from Drs. THOMSON, MACROBIN, and ACLAND, Sir William Gull's amendment was put and carried.

Upon being put as a substantive motion, Dr. BENNETT moved, and Dr. ACLAND seconded—"That the date of July 1, 1872, be substituted for January 1, 1873." This was agreed to.

COMMUNICATIONS FROM IRELAND.

The following communications from the Apothecaries' Hall and the Royal College of Surgeons of Ireland were read:—

The Apothecaries' Hall of Ireland, Dublin, March 1, 1872.

Dear Sir,—I have the honour to enclose copy of resolutions passed at a meeting of the General Council of Apothecaries' Hall, on February 14, 1872, and would respectfully ask you to lay it before the President and Medical Council at your earliest convenience.

I am, dear Sir, yours, &c.,

Dr. Hawkins. (Signed) ROBERT MONTGOMERY, Governor.

The Apothecaries' Hall of Dublin, February 14, 1872.

Resolutions adopted by the General Council of the Apothecaries' Hall of Ireland, February 14, 1872:—

"That the proposed 'Scheme' for the formation of a Conjoint Examining Board for Ireland (see Minutes for February 29, 1872) commends itself to the approval of the Company for the following reasons:—

1. "That it provides ample means for securing a sound preliminary and Professional examination for Medical students.

2. "That it holds out marked encouragement to University education and training.

3. "That the constitution of the Conjoint Examining Board is such as to insure for the public a class of Medical Practitioners who shall be thoroughly tested in every department of the Profession.

4. "That it proposes having three Professional examinations in number, thereby tending to lessen the evil of the existing practice of cramming the student.

5. "That the fees for the examination or examinations of the Conjoint Scheme shall be only such as will cover the expenses of these examinations.

6. "That the right of the Medical authorities to carry out their respective regulations for their several degrees and licences is left intact.

7. "That by consolidating the Medical institutions of the country it will infuse strength and harmony into the whole Body Corporate of the Medical Profession in Ireland. The Company, however, are decided in the opinion that there ought not to be less than three examiners to form the Board for conducting the examination in each group of subjects specified in the table of the report, as a lesser number can hardly give a sufficient

or satisfactory examination owing to the great extent of these subjects, and especially as the larger number will have the effect of correcting any tendency that might exist to onesidedness on the part of an examiner."

(Signed, on behalf of the Governor and Company of the Apothecaries' Hall of Ireland)
C. H. Leet, M.D., Secretary.

Royal College of Surgeons in Ireland, Dublin, March 2, 1872.

At a meeting of the Council of this College, held on February 17, 1872, the following resolution was passed, viz.:—

"That the Council, believing that the tendency of the scheme would be to supersede all existing degrees and diplomas by substituting the Conjoint Examination for them, is of opinion that no candidate (except in the case of graduates in Arts hereafter specified) shall be admitted to the final examination under the Conjoint Scheme unless he shall have paid to the 'Conjoint Fund' a fee of not less than thirty guineas, which shall be apportioned among the Co-operating Medical Authorities upon some equitable principle.

"That graduates in Arts of any British University shall be admitted to the final examination under the Conjoint Scheme upon payment of such fees as shall cover the expenses of this examination, but such graduate shall not be thereby entitled to the licence or diploma of the Colleges of Physicians or Surgeons or that of the Apothecaries' Hall without payment of an additional fee."

Dr. Humphry moved—"That this Council expresses its regret that no scheme has been framed and submitted to the Council by the Medical Authorities in Ireland for establishing a Conjoint Examination. The Council has considered the resolutions of the Conference of Representatives on this question, and hopes that a scheme for a Conjoint Examination which the Council will be able to sanction may be submitted to the Council by July 1, 1872." He drew attention to the resolutions passed at a conference consisting of representatives of the Medical Authorities in Ireland, to the effect that the Conference agreed that it was expedient to have a joint examination in Medicine, Pharmacy, and Midwifery; and that the Irish Medical Authorities should not give their qualification to any candidate who had not passed such examination. The fact that these resolutions had been passed warranted them in expressing, with regard to Ireland, the same hope as had been expressed with regard to Scotland—that there would be forthcoming from that country a scheme for examination which would receive the sanction of the Council. The various remarks which had been made with respect to Scotland rendered it unnecessary to repeat the same line of argument now they were dealing with Ireland, because the two nations stood very much in the same position.

Dr. Stokes, in seconding this, said that he wished to remind Dr. Parkes that the Council had been constituted without any mandatory power, either direct or indirect; and such old institutions of the country as Universities and Medical Corporations were not to be dictated to on the *sic jubeo* system. Edmund Burke said that in all human transactions there must be an element of mutual confidence to bring them to a successful termination. There had been several attempts made by the different Irish Bodies to accomplish the scheme now under discussion; and a late conference between the College of Surgeons and the College of Physicians failed simply on the money question. There was an earnest desire to fulfil the wishes of the Council, but the difficulties were greater than these in England. They had in Ireland two Universities giving the higher degrees in Medicine under totally different arrangements; and they had to co-opt the Apothecaries' Company into the scheme. The University of Dublin, the Queen's University, the College of Physicians, the College of Surgeons, and the Apothecaries' Company, had all acted loyally towards the Council by sending some of their best men as their representatives to the Conference. The report of the delegates did not propose to interfere with any of the Bodies as to Professional education; it carried out the views of the Council as to preliminary education, and determined to entrust the preliminary examinations to the Universities of Ireland, thus taking the onus off the hands of the Corporations. It also encouraged University education, which was a great desideratum, assisting to place the members of the Medical Profession in the same social position as those of the Church and the Bar. He had voted against one resolution of the Conference—namely, that which recommended that candidates for the Conjoint Examination should pass three Professional examinations—because he thought there was great danger in a multiplicity of examinations. As long as they were tutorial they could not be too many. Examinations were good when they were educational, when they were applied to clinical Medicine or clinical Surgery, and when applied to the *art* of Surgery and the *art* of Medicine; but a long acquaintance with examinations had led him to the conclusion that when examiners took their candidates into the more recondite parts of the theory of Surgery and Medicine, there was a great danger of their falling into the mistake of seeking to find out what a man did *not* know. (Cheers.) The report had been sufficiently adopted by the Licensing Bodies to justify him in saying to the Council that an enormous advance had taken place in the right direction among the Medical Bodies of Ireland. He could trace a sensible improvement from the second year of the existence of the Council. Young men had wonderfully improved in habits of industry, gentlemanly conduct, and literary attainments—in fact, they were not like the same individuals that they were. He quite agreed with the opinion that the result of the joint scheme would be to promote higher education, by relieving the Universities from the drudgery of teaching the A B C of Medical science.

Dr. A. Smith reminded the Council that the report of the Conference was not intended to bind any one. It was only a report of delegates, and in no way did it issue from the Licensing Bodies; but it proved that the Irish Bodies had made a nearer approach to a complete Joint Examining Board than had been made by any other Body. Upon the subject of examination, he had long been of opinion that the test of an examination was of very little value when compared with the great importance of a *bonâ fide* preliminary examination; and the Council, he thought, had not devoted the attention it ought to insure that. One paragraph in the report he considered to be very valuable—viz., that in which they suggested that the constitution of the Preliminary Examining Boards should be dealt with by the Universities. No one thing would so much raise the educational standard of Medical men as the institution of *bonâ fide* boards to superintend preliminary education.

After a few remarks from Dr. Arjohn,

Dr. Leet said that the Apothecaries' Company of Dublin were prepared to admit such modifications in the scheme as would bring in the outstanding bodies, which he hoped would be accomplished.

The President: I shall vote for this motion with great satisfaction, particularly on account of the reference which has been made to the resolutions of the Conference of Representatives. When we consider what we know to be the fact—that there were fifteen of these gentlemen—three representatives of each of the five Medical Authorities of Ireland—that they met sixteen or seventeen times; that they were busy men, whose time was valuable to them—men of ability (as is shown by the scheme which they have produced, if by nothing else)—I think that this Council is bound to acknowledge the labours of these gentlemen. This scheme is actually more complete than the English scheme, because, in fact, it will include all the five Bodies in Ireland; and more comprehensive, because it includes proposals with regard to preliminary education as well as Professional education. At the same time, this Council, I think, must regret that the Bodies they represented were not of the same opinion as their representatives. But we have some hopes that they will soon come into the scheme, because three of the five Bodies, including the very distinguished University of Dublin (which assents to the general principle of this scheme, though objecting to one of the details), the College of Surgeons, and the Apothecaries' Hall, have given a general assent to it. With those facts before us, the prospect with regard to Ireland is not a hopeless one.

The motion was unanimously passed.

It was then agreed, on the motion of Dr. Humphry, seconded by Mr. Hargrave—"That a copy of the foregoing resolution be forwarded to each of the Medical Authorities in Ireland."

SPECIAL EDUCATION OF WOMEN.

Dr. Acland moved—"That a committee be appointed to consider and report whether the General Medical Council has power to make rules for the special education of women, such as may entitle them to obtain a qualification to be certified by the Council. And that the committee do further report for what purpose such qualifications, if any, should be granted, what are the most desirable means for educating, examining, and certifying in respect of them, with especial reference to midwifery, the management of Medical institutions, dispensing, and nursing." He wished it to be distinctly understood that his motion had nothing to do with the question so much discussed of late, and which had been the source of a great deal of discomfort in Scotland—viz., whether or no women were entitled to be entered upon the Medical Register as ordinary Medical Practitioners. He avoided this by not using the words "Medical qualification." All that he asked was that a committee of inquiry should be appointed. Anyone at all conversant with the condition of the poor, especially in great towns, or with the condition of the labouring poor in agricultural districts, knew

perfectly well that there was a great want of well-trained women as nurses and midwives. Proof of such want was furnished by the fact that various institutions were endeavouring to supply it by furnishing women with certificates for various qualifications. The question, therefore, was (the want being admitted), was it the duty of the Medical Council to provide a licensed, and therefore a properly qualified, class of women for ministering to the sickness and sufferings of the poor? It was not necessary that the Council should examine such persons, but it would be desirable to have a general supervision of the institutions which granted the licences or certificates to trained and experienced women. Something of the sort was in operation at St. Thomas's Hospital; and, whether the idea was good or bad, no possible harm could result from an inquiry. It was very certain that there was an increasing demand in all departments of work for the service of women, and they were doing their work remarkably well in the post-offices and other places. (Cheers.) Was it not fitting, therefore, that the Medical Council should exercise some control over the qualifications and certificates that were being given to women as nurses and midwives?

Dr. Stokes seconded this.

Sir Dominic Corrigan spoke strongly against the motion.

The discussion was adjourned at six o'clock till the next day.

Fifth Day.—Tuesday, March 5.

The adjourned debate on Dr. Acland's motion was resumed by

Dr. Andrew Wood, who said when he first received notice of the motion, his impression was that Dr. Acland was anxious to bring into the Council some portion of the troubles by which Edinburgh had been vexed for the last three years; and he had some little hopes that it might act as a *diverticulum*, and quit Edinburgh of the matter to some extent. He was somewhat confirmed in this view, because he saw that the newspaper in Edinburgh which had all along advocated the "woman's rights" opinions had got hold of this motion in some way or other, and had inserted it with a chuckle. He had not the slightest doubt that the hearts of Miss Jex Blake and her compatriots were strongly agitated with hope that the question was being removed to a higher sphere than before. It was now a great relief, though it would be a monstrous disappointment to the ladies in Edinburgh, to find that the motion was really a much smaller affair; and now that it had been explained by Dr. Acland, he was utterly at a loss to understand why the Council had been called upon to interfere in the education of midwives. If the question had been the education of women, it would have been something worthy of Dr. Acland's lance, but for the Council to appoint a committee to draw up a curriculum of study and to endeavour to obtain a qualification for nurses, and midwives, and managers of Medical institutions, even if it was within their power, would be unworthy of them. No doubt it was of great consequence that midwives should be properly trained, but who were the proper persons to give that training? Why, it was done in every maternity institution in the kingdom, and the question of the training of nurses was drawing attention in many influential quarters. There were registers for midwives, and registers for nurses, but Dr. Acland ought to have thought twice before bringing a motion before the Council which sought to make an addition to the Medical Register for the benefit of nurses and midwives. The motion was completely *ultra vires*. The Council had no power to institute a new qualification; and even if they had the power he doubted whether it would add to the dignity of the Profession, or be in their proper sphere to institute it. Let Dr. Acland apply the same energy to this great subject out of doors which he had shown in the Council, and he would be applying it in its proper place. No doubt great results might accrue, but the Council had quite enough to do in registering and taking charge of the Medical Practitioners of the country, without bothering themselves with women. (Laughter.) Woman now, as in former days, was the *teterrima causa belli*—(laughter)—and it would not add to the cause of peace to introduce the woman question into the Council.

Dr. A. Smith said he concurred in all the objections which had been made to the motion. Even if the Committee were appointed, and did report in accordance with what Dr. Acland had so well advocated, the Council would not be able to take any action upon it. The very title and preamble of the Medical Act precluded them from acting upon it. They had no power except to register and superintend the education of qualified Practitioners. The best course for Dr. Acland to pursue would be to withdraw the motion, for it would expose the Council to a good deal of censure out of doors if it appeared that time had been occupied in discussing a proposition the result of which must be that they could take no action upon it.

Dr. Acland, in reply, said if he had to argue against the motion, he thought he could do so with much more force than he had yet listened to. Notwithstanding the care which he had taken to separate entirely the question of the Medical education of women from this subject, Dr. Andrew Wood seemed to have fallen into the same mistake as Sir D. Corrigan, and had begged the Council not to be dragged into the same dilemma as the Edinburgh University had been dragged into. The motion, however, had nothing to do with that subject. It simply raised the question whether, there being already a number of persons trained and said to be qualified, they were to remain outside the province of the Council on account of their sex. Dr. Andrew Wood had recommended him to go and do what he wished outside the Council; but, after fifteen years' experience, his colleagues knew him better than to think that, in a matter which, in his judgment, essentially concerned the Medical Profession, he should leave the Council alone and get up an agitation outside. His motion pledged the Council to nothing except an inquiry. Even Sir R. Christison had told him that, had he been present and able to do so, he would have consented to serve on the Committee.

Dr. Andrew Wood: But he is not in favour of your motion.

Dr. Acland said he should not wish to have a committee of members all of one way of thinking. It had been said that the Council had nothing to do with the licensing of midwives, but in the list of qualifications on the Register he found no less than three distinct licences in midwifery. At present these were confined to one sex, but he wished the Committee to say whether there was anything in the nature of those licences which justified them in discouraging persons of the other sex. He would ask Mr. Quain to say if he knew of anything in the by-laws or charter of the College of Surgeons which prevented the grant of the licences in midwifery to the other sex.

Mr. Quain said he did not know enough to answer the question one way or the other.

Dr. Acland said he had taken great pains to ascertain whether the subject was a proper one to bring before the Council, and he had met with only one opinion on it—namely, that it was a most desirable one for the Council to consider. When the report of the Committee was brought forward, he for one should be most unquestionably against doing anything if it appeared from the evidence undesirable or inexpedient.

The motion was carried by a majority of 1, 11 voting in its favour and 10 against.

The following members were then proposed for the Committee:—Sir W. Gull, Dr. Quain, Mr. Quain, Dr. Stokes, Mr. Hargrave, Dr. Thomson, Dr. Macrobin, and Dr. Acland.

Dr. Quain said no one could have a stronger conviction than he that the Council had not the power to make rules for the special education of women such as might entitle them to obtain a qualification to be certified by the Council; but he thought it was due to Dr. Acland to consent to the Committee.

Dr. Alexander Wood said, if the question had been the wider one which was discussed in Edinburgh, in regard to the admission of ladies to the Medical Register, that would have been quite within the sphere of the Council; but Dr. Acland, in moving the motion, so expressly limited it to the mere question of sick nurses that it was placed altogether outside the province of the Council, and if any of the money which by Act of Parliament was raised for special purposes was devoted to this inquiry, legal questions might arise upon it. Under these circumstances, he should decline to have anything to do with the consultations or deliberations of a Committee whose first duty should be to look at the Medical Act and point out by which clause they were entitled to supervise the education of sick nurses.

The Committee was then agreed to.

THE ENGLISH CONJOINT BOARD.

Dr. Humphry moved, as a rider to the motion that had been passed with regard to the English Conjoint Board—"That this Council trusts that arrangements for carrying out the scheme for a Conjoint Examination by certain of the English Medical Authorities, which has received the sanction of the Council, will be so matured that the contemplated examination may commence early in 1873. The Council direct that a copy of this resolution be forwarded to each of the Medical Authorities co-operating under the above scheme." It appeared to him desirable that the Council should be able to look forward to some time when the examination should commence, so that the students and the Profession at large might not expect it to take place sooner than it really would. Certain of the Medical Authorities of London had already begun to consider the mode

in which the examination should be conducted, and he had learnt that it was scarcely possible that the arrangements could be matured before 1873, for some of the Authorities would have to alter their by-laws, which could not be done except in a regular or rather slow manner.

Dr. BENNETT seconded the motion.

Mr. QUAIN thought it would probably be better to ask the different Bodies to communicate with the Council in July, as to when their arrangements would be completed.

Dr. ACLAND asked if Dr. Humphry meant that the Conjoint Examination should begin early in 1873, and that all others should cease.

Dr. HUMPHRY: When this begins others will cease.

Dr. ACLAND said, in that case, it ought not to pass without further explanation.

Mr. QUAIN said the motion had been brought forward without notice, or any opportunity being given of consulting those who were engaged in the business of the institutions.

Dr. A. SMITH supported the view taken by Mr. Quain.

Dr. PARKES said, if the motion were agreed to, it would not enable them to inform the students when the Conjoint Examination would commence.

Dr. HUMPHRY said the object of the motion was to express a courteous intimation that the examination ought to commence at that time.

Mr. QUAIN said it was usually the rule that a young man was examined according to the laws in existence at the time he began his studies.

Dr. EMBLETON thought it would be better to delay the matter until the Conjoint Board for England were really formed. It was quite possible that by July the Apothecaries' Society might find means to join in the scheme. The students would require considerable notice before presenting themselves to the new Board.

The PRESIDENT thought the motion had answered the purpose for which it was brought forward, and therefore it might be withdrawn. The students would now know, at all events, that they would not be examined by the Conjoint Board this year.

Mr. BRADFORD expressed an ardent hope that means might be found to render the scheme for a Conjoint Board for England perfect. His individual opinion was that means might be found to enable the Society of Apothecaries to join the scheme. (Hear, hear.) He knew the sentiments of the governing body of that Society, and was quite sure that the feeling among them was in favour of co-operating in the formation of the Conjoint Board. Great misapprehension had prevailed on this point, and he should be sorry for the Council to separate without removing the misapprehension that it was a wilful act on the part of the Society to secede last year. He believed the other Bodies did not really know what the difficulties were which the Society had to contend with, but in another part of the counsel's opinion which was read at the meeting, means were suggested by which the difficulties might be got over. Unfortunately, it was imagined that the Society had wilfully seceded from the conference. If the Conjoint Board were established with the assistance of the Society, it would undoubtedly flourish like a tree planted by the river-side—(laughter)—but if the Society did not co-operate, nothing but difficulties would ensue. They had been told that if they did not join in the scheme they would, like certain fœtal organs, cease to exist. He did not apprehend any such result, for he believed the Court of Examiners of the Society of Apothecaries was one of the vital organs of the Profession. He assured the Council that every means should be taken to overcome the difficulties which had arisen. (Hear, hear.)

The motion was then withdrawn.

Dr. ACLAND moved—"That a Committee be appointed to draw up a scheme of regulations, common to all the Conjoint Boards, having reference to the time and mode of the commencement of the examinations of the Conjoint Boards, and the cessation of the examinations of the other Examining Boards."

Dr. ANDREW WOOD: First catch your hare.

It was then objected by several members that the motion was too important to be brought forward without notice, and it was accordingly withdrawn.

The consideration of the report of the Committee on the Visitation of Examinations was again postponed.

The report of the Committee on the Registration of Medical Students and on Returns of Professional Examinations was as follows:—"Your Committee, owing to the time necessary for the complete correction and verification of the above-named returns being longer than the present short sessions of the Council allow, and the recommendation of the President of the Council to this effect, beg leave to suggest that in future the returns hitherto compiled by this Committee be confided to the care of the Executive Committee."

The report was received and adopted on the motion of Dr. EMBLETON, seconded by Mr. HARGRAVE.

The report of the Committee on Army Medical Returns was approved, and the thanks of the Council were voted to the Director-General of the Army:—"Your Committee have carefully examined the returns supplied at the request of the Council by the Director-General of the Army Medical Service. They are of opinion that the best thanks of the Council are due to the Director-General for kindly acceding to their request, and altering the form of the returns from that adopted in former years. They recommend the Council to direct that the returns be printed on the Minutes."

The PRESIDENT said that of thirty-four gentlemen examined, only one entirely failed in the examination. The percentage of failures had decreased enormously in the course of the last few years. There was a time when it was 40 per cent.; now it was only about 3 per cent.

The following recommendations of the Executive Committee with reference to penal measures were also adopted:—

(From Minutes of Executive Committee for February 28, 1872, p. 4.)

Read—The following resolution, passed by the General Medical Council on July 8, 1871 (p. 32, sect. 4):—"That it be referred to the Executive Committee to report on the most desirable mode of procedure in the case of motions having reference to any penal measures."

Resolved—1. That the deliberations of the Council between the completion of the evidence and the decision of the case be held in private. 2. That the question as to the person charged being guilty or not guilty be put from the chair, and not in the form of resolution by mover and seconder.

The PRESIDENT said he had received two letters which referred to matters that ought to come under the cognisance of the Council—one was from a gentleman at Shrewsbury, acting on behalf of an association which had been recently engaged in prosecuting unqualified Practitioners; and the other was with reference to foreign degrees which could not be entered on the Register.

The first letter was referred to the Branch Council; the second related to a matter which the Council had no power to deal with.

The Executive and Pharmacopœia Committees were reappointed.

The following letter from the office of the Commissioners in Lunacy was read:—

19, Whitehall-place, S.W., March 2, 1872.

Sir,—I am directed by the Commissioners in Lunacy to call the attention of the Medical Council to the fact that Mr. William Dobson, a Member of the College of Surgeons, England, and Licentiate of Apothecaries' Hall, not being registered under the Medical Act, appears to have been practising at Malvern-road, Beeston-hill, Leeds, and so practising he recently signed a certificate under the Lunacy Acts. He has promised forthwith to register, and upon that understanding only do the Commissioners refrain from proceeding against him criminally.

I am, Sir, your obedient Servant,

(Signed) CHARLES PALMER PHILLIPS, Secretary.

Dr. F. Hawkins, General Council of Medical Education, etc.

The Registrar was directed to acknowledge with thanks the receipt of the letter.

The Finance Committee's report was agreed to on the motion of Dr. QUAIN.

The Finance Committee beg leave to submit to the Council in the annexed table a statement of the income and of the expenditure of the Council during each of the years 1870 and 1871, and of the estimated income and expenditure for the year 1872.

It will be seen that the income of the year 1871 is less than that of the year 1870 by the sum of £510 5s. This diminution is due chiefly to a decrease in the amount of registration fees. This decrease appears in the returns from each of the several Branch Councils—the amount received by the English Branch Council being less during the year 1871 than that of the preceding year by £178 10s.; that of the Scottish Branch Council, by £111 15s.; whilst that of the Irish Branch Council is less by £117 5s. There is also a decrease in the amount credited to sales of Pharmacopœia and balance of account. This decrease, however, is not due to a diminished sale of the Pharmacopœia, but to the fact that the balance of £337 0s. 6d. to the credit of the Pharmacopœia account in 1870, which had been previously kept separate, has since then been paid over to the general account.

The expenditure for the year 1871 being less than that of 1870 by £1128 18s. 8½d., there is a balance in favour of income for the year 1871 of £878 19s. 6½d.

The reduced expenditure for 1871 is due to the fact of there having been but one meeting of the Council during that year 1871, whilst the Council assembled twice in the preceding year.

A communication addressed to the Chairman by Mr. Bell and Mr. Roope, applying for remuneration for extra work in connexion with the investigation into the accuracy of the Register, being laid before the Committee,

It was resolved to refer the application to the Executive Committee, who have charge of the publication of the Register.

March 2, 1872. (Signed) RICHARD QUAIN, M.D., Chairman.

	Actual Income for the Year 1870.		Actual Income for the Year 1871.		Estimated Income for the Year 1872.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Fees received by—						
Branch Council for England	2358 0 0		2179 10 0		2200 0 0	
" " Scotland	725 0 0		613 5 0		600 0 0	
" " Ireland	1047 5 0		828 0 0		850 0 0	
		4130 5 0		3620 15 0		3650 0 0
Dividends received by—						
Branch Council for England	677 1 3		675 12 6		670 0 0	
" " Scotland	68 2 2		61 7 9		65 0 0	
" " Ireland	65 19 5		64 4 3		60 0 0	
		811 2 10		801 4 6		795 0 0
Sale of Registers	270 10 0		264 10 6		270 0 0	
Sale of Pharmacopœias	270 0 0		210 12 0		200 0 0	
Balance of Pharmacopœia account ...	337 6 0		... ...		... ...	
Penalties	9 19 0		39 19 3		... ...	
		887 15 0		515 1 9		470 0 0
		£5829 2 10		£4937 1 3		£4915 0 0

	Actual Expenditure for the Year 1870.		Actual Expenditure for the Year 1871.		Estimated Expenditure for the Year 1872.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenses of—						
General Council	... ...	4060 11 9	... ...	2931 2 10½	... ...	3500 0 0
Branch Council for England	597 18 9		593 16 8		600 0 0	
" " Scotland	240 13 0		319 5 0		300 0 0	
" " Ireland	287 16 10		313 17 2		300 0 0	
		1126 8 7		1126 18 10		1200 0 0
		5187 0 4		4058 1 8½	Estimated total expenditure	4700 0 0
Actual income ...		5829 2 10		4937 1 3	Estimated total income	4915 0 0
Balance in favour of income ...		£642 2 6		£878 19 6½	Estimated balance in favour of income	£215 0 0

Dr. Stokes moved—"That it be an instruction to the Executive Committee to obtain premises where the meetings of the Council can be held, and the general business carried on with comfort and convenience." He said the room in which they were at present met was utterly insufficient. This was the first winter meeting there, but in summer it was simply intolerable, and in a sanitary point of view it was disreputable to the Council and to the Profession.

Dr. Flemino seconded the motion, and in doing so suggested that a house might be erected in which they could meet with comfort.

Dr. Bennett said there was no earthly reason why the Council should remain in such a building. They had sufficient funds to pay for a more comfortable place. Their money was at present invested in the Three per cent. Consols, and they would certainly get a better return if they invested it in suitable rooms. Several attempts had already been made to rent a house, but none of them had succeeded.

Dr. Andrew Wood: Would it be right to order the thing without some estimate of the expense?

The President said the Council had not a farthing of its own to expend on this matter. If the Executive Committee proposed to purchase a house they would have to do it through the English Branch Council.

Dr. Acland supported the motion.

Dr. Bennett: If the Executive Committee purchase premises, to whom are we to look for the money?

Dr. A. Smith: If the Executive Committee go to an expense, the funds of the three Branch Councils are at once liable, just as much as for the rent of this room.

The resolution was unanimously agreed to.

The customary votes were then passed, and the session terminated.

KILLED IN THE CROWD.

We have been favoured by Dr. Kelly, of King's College Hospital, with the following interesting account of the post-mortem examination of one of the unfortunate individuals crushed to death in the crowd on the occasion of the illumination after the Royal procession to St. Paul's:—

"J. P., aged 52, was brought dead to King's College Hospital on the night of February 27, 1872. It appeared that he was crushed in a crowd against some railings in Fleet-street, and that death took place in a very few minutes.

"An autopsy was made forty-one hours after death. There were no external marks of violence, and no fracture of any bone was found. Head: Brain and membranes healthy. Thorax: With the exception of slight old adhesions at the apex of right lung, the pleuræ were healthy. Both lungs were slightly emphysematous in front. On section, they were rather dry, and quite crepitant everywhere, except in the right lower lobe, where two or three patches of recent pulmonary apoplexy were found. These patches were slightly prominent, and well defined; there was no plugging of the vessels leading to them. The mucous membrane of the trachea and bronchi down to the smallest divisions was intensely congested, and contained a little frothy mucus; this condition of the air-passages contrasted markedly with the dry state of the lungs. Right lung, 23 oz.; left lung, 20½ oz. There was no foreign body in the air-passages. The right side of the heart was much distended, and both the auricle and ventricle were full of black, clotted blood; the coronary veins were also full, and there was a small amount of serous effusion into the pericardial cavity. The left ventricle, on the contrary, was nearly empty, and firmly contracted; all the valves were healthy, and the walls of the heart were quite normal. The liver and kidneys were much congested, but otherwise their structure was healthy. The spleen and mesenteric vessels were not congested.

"*Remarks.*—Death in this case was caused by an obstruction to the passage of blood through the lungs, and the appearances were such as may be produced by strangulating an animal; but here the air was prevented from entering the chest, not by any obstruction in the larynx or trachea, but by pressure from without upon the chest-walls, so that it was impossible for the man to take a sufficient amount of air into the lungs. The dry state of the lungs, and the empty condition of the left side of the heart, while the pulmonary artery and the right cavities were so full of blood, show that the small pulmonary arteries must have been instrumental in preventing the onward flow of blood into the lungs. The congested state of the bronchi, liver, and kidney followed as a consequence of the obstacle in front of them. A point of interest in the case was the presence of patches of pulmonary apoplexy in lungs which contained less blood than usual. They were, no doubt, due to rupture of the distended vessels in the bronchial tubes, so that the blood trickled down and filled the air-cells. The absence of congestion in the spleen, stomach, and intestines is due to these organs being seated behind the liver in the course of the circulation; any obstruction in the lungs would at once be felt in the liver, and the hepatic veins would become engorged. This obstruction, however, does not tell immediately upon the viscera behind, because the capillaries of the liver become distended, and so for a time break the backward pressure. This, in a great measure, accounts for the absence of ascites until the last stages of heart disease, while albuminuria and congestion of the liver are in such cases earlier symptoms."

The Chelsea Board of Guardians have appointed Mr. Rowland, of Markham-square, Chelsea, Public Vaccinator for that parish.

Académie des Sciences.—The two vacancies among the eight Foreign Associates, created by the deaths of Sir John Herschell and Sir Roderick Murchison, have just been filled up by the almost unanimous elections of Mr. Airy the Astronomer Royal, and Professor Agassiz.

ORIGINAL LECTURES.

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

LECTURE II.

THE subject which will come next under our consideration is the general position of the alimentary canal within the abdominal cavity, and especially the mode in which it is retained in that position by the various layers or folds of the peritoneal membrane which pass around it. I propose now to treat only of the most ordinary, or what may be called typical, conditions of these parts in mammals, with which we should be well acquainted before we are able to appreciate the extent and the characters of the various deviations from these conditions so frequently met with.

To understand this somewhat complicated subject clearly, we must begin at the period when the alimentary canal is nothing more than a simple straight tube, suspended in the mesial line by a fold of peritoneum attached along the posterior or vertebral side of the abdominal cavity.(a) When the various portions of the canal become differentiated, the upper part of this fold will be the *mesogaster*, the next part the *mesentery*, the next the *mesocolon*, and the lowest the *mesorectum*. The changes which first take place in the canal are a widening of the calibre of the upper part to constitute the stomach (see Fig. 1, *g*), and an immense elongation of the part succeeding this, into the middle of which passes the vitelline duct, a structure which soon disappears, and is of no further consequence. The elongation at this particular spot, the two ends being comparatively fixed, causes the intestine to assume the form of a large loop, which for a time projects out of the body of the fœtus at the umbilicus, and which carries with it the corresponding portion of its peritoneal attachment or mesentery (Fig. 1, *me*). This loop has a narrow neck, formed by the duodenum (*d*) above, and by what afterwards becomes the transverse colon (*tc*) below, so that it includes the whole of the small intestine, together with the cæcum (when developed) and ascending colon. The remainder of the colon does not enter the loop, and retains more or less of its primitive condition and connexions, except that it may lengthen so as to be thrown into folds. As the part of the intestine forming the loop continues to elongate, the mesentery which supports it and conveys its vascular supply (from the superior mesenteric artery) increases in breadth at its peripheral part in a corresponding ratio with the intestine, but does not grow materially at the neck of the loop; *hence the commencement of the duodenum and the right end of the transverse colon never lose their primitive relation, whatever changes take place in the position and growth of the viscera;* and all the intestine between these points is slung on a continuous fold of mesentery, the root of which (containing the superior mesenteric artery) passes between them.

FIG. 1.

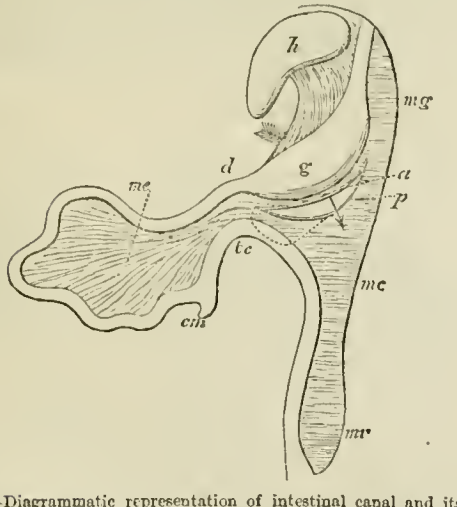

FIG. 1.—Diagrammatic representation of intestinal canal and its peritoneal attachments:—*h* the liver, *g* the stomach, *d* the duodenum, *cm* the cæcum, *tc* the transverse colon, *mg* the mesogaster, *me* the mesentery, *mc* the mesocolon, *mr* the mesorectum. The peritoneal fold between *h* and *g* is the gastro-hepatic omentum; *a* and *p* are respectively the anterior and posterior layers of the great omentum or epiploon (which is supposed to be projected towards the observer) when in its simplest condition in mammals, being formed only of the mesogaster. The arrow is passed behind the gastro-hepatic omentum (through the foramen of Winslow) and the stomach, into the cavity or sac of the great omentum. The dotted line represents the position of the posterior layer of the great omentum, when the mesocolon is implicated in it as well as the mesogaster, as in man and some other forms.

(a) The descriptions and figures apply to the body in the upright position.

The loop in its early stages projects anteriorly and mesially, but after it is withdrawn into the abdominal cavity it becomes twisted upon itself to the left, and ultimately assumes somewhat of the form represented in Fig. 2. The duodenum is turned beneath the right end of the transverse colon; but they still form the boundaries of the narrow neck of the mesentery, the former being posterior and the latter anterior, instead of being above and below, as in the primitive position, and they continue the most fixed points of the whole abdominal part of the canal between the two extremities. The colon retains much of its original position and mode of attachment.

FIG. 2.

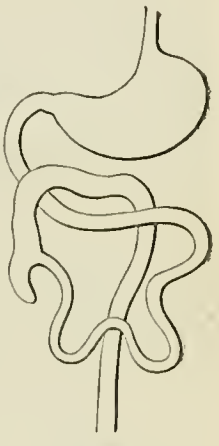

FIG. 2.—Diagrammatic plan of the general arrangement of the abdominal alimentary canal (seen from in front). The small intestine is greatly abbreviated.

The rule that the whole of the intestinal canal is surrounded by, and suspended to, a continuous peritoneal fold is departed from in the adult condition in man and some of the higher Primates, in which at certain regions the intestine, appearing to grow faster than the corresponding portion of mesentery, gets more or less behind or outside its peritoneal covering. These parts are the duodenum and the ascending and descending colons; but this condition is perfectly exceptional among mammals.

The stomach changes very much from its early simple fusiform shape, suspended between two layers of mesentery, which pass in front (from the future lesser curvature) to the liver, and behind (the future great curvature) to the middle line of the abdominal wall. It gradually gets placed more transversely, with the lower or pylorie end to the right, and turns round, so that what was the left side comes to be anterior; and this same side grows rapidly at the end opposite the pylorus, producing the fundus, so that, at the upper or œsophageal end, the mesogaster comes to be placed altogether on the posterior surface, but passes along the lower border as it approaches the pylorus. Between the layers of the mesogaster the spleen is developed; and it is in this part that a very remarkable change takes place, which results in the formation of the great omentum. This is a bulging forwards (see Fig. 1) of a limited portion of the mesogaster close to its attachment to the stomach, usually extending as far as the pylorus on the right and the middle of the fundus on the left. This continues to push onwards until it forms a large descending flap of peritoneum, which passes in front of the transverse colon, and usually over the coil of small intestines, but being quite unconnected with either, merely lying movably upon them. From the mode of its growth, it will be readily seen that it forms a kind of bag open only above, its interior being continuous with the peritoneal cavity, which passes up behind the stomach to join the general cavity at the so-called foramen of Winslow, behind the gastro-splenic omentum. It is possible that the two contiguous serous layers may occasionally adhere so as to obliterate the cavity; but this must be regarded as an abnormal or pathological condition, and does not invalidate the fact that the great omentum, being formed by the folding of a double layer of peritoneum, must by the nature of its construction always contain four layers of peritoneum: the two outer ones with their serous surfaces outwards, and the two inner ones with their serous surfaces inwards; notwithstanding statements

that have been made to a contrary effect, to which I shall have to refer in future lectures.

In the majority of mammals, the great omentum is as above described, a process or doubling of the mesogaster only (Fig. 3, B); but in man and some other species a different arrangement occurs, by which the transverse mesocolon is more or less involved in it. This arises from the close connexion to which I have before referred between the right end of the transverse colon and the pyloric end of the stomach. At this spot, if the pushing forward (as it were) of the peritoneum takes place over a larger area than before described (as in the dotted line, Fig. 1), it will necessarily involve part of the mesocolon as well as the mesogaster, so that while the anterior layer of the omentum depends from the stomach, the posterior layer will return to the colon, and thus becomes continuous with the mesocolon (Fig. 3, C). In adult man this condition usually extends throughout the greater part of the length of the transverse colon, but in the lower Primates and in the fœtal condition of man, and sometimes permanently, it only applies to the right extremity; in the middle and left part the mesocolon lying behind and independently of the omentum, as in ordinary mammals; and it must be noted that the transition from one condition to the other, which may be traced gradually in passing from left to right, is not due to any adhesion of serous surfaces as has been supposed, but simply to the extent of membrane involved in the forward growth of the great omentum. At least, this appears to me to be the true explanation of the different conditions of the great omentum met with in different animals and in different stages of human development.(b)

Fig. 3.

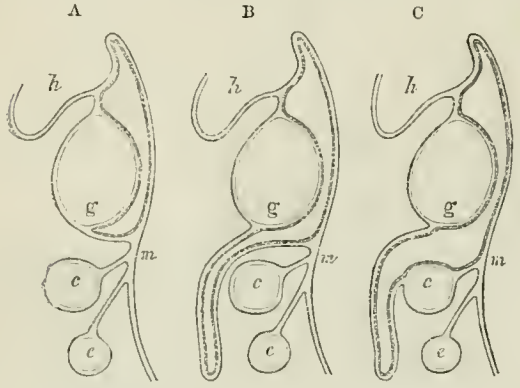

Fig. 3.—Diagrammatic plan of the different conditions of the great omentum, being imaginary vertical antero-posterior sections of the abdominal viscera. *h*, the liver; *g*, the stomach; *c*, the colon; *e*, the small intestine; *mg*, the mesogaster; *mc*, the mesocolon; *me*, the mesentery. Just as *g*, *c*, and *e* are sections of one continuous tube, winding backwards and forwards in a serpentine manner, so *mg*, *mc*, and *me* are sections of one continuous fold, following at its free edge the winding of the tube it suspends and incloses. The dark line is the layer of peritoneum bounding the lesser peritoneal cavity, or cavity of the great omentum. A represents the simple or primitive condition of these parts when no great omentum is formed. In B a great omentum is formed by the bulging forward of the upper part of the mesogaster only. In C a great omentum is formed at the expense of both mesogaster and mesocolon. Various intermediate conditions between the two last can easily be imagined, as where (as frequently is the case) the posterior layer of the great omentum joins the middle of the mesocolon.

The most important of the glands which pour their secretion into the alimentary canal, on account of its size, if not on account of the direct action of its secretion on the digestive process, is the *liver*. That it is present and largely developed in all mammals, and that it is always connected by its excretory duct with the same portion of the canal—viz., that which immediately succeeds the stomach—I need scarcely mention. It would be superfluous, also, to speak to the audience here assembled of its intimate structure or of its various and complex functions, for all the facts ascertained beyond dispute on these subjects are fully described in the courses of physiological lectures in every Medical school in the country, and minutely detailed in every text-book of physiology, while the results of the numerous recent researches made in various parts of the world, in the hope of elucidating the still numerous obscurities and difficulties that remain in connexion with it, are faithfully chronicled in several journals for the convenience of those who wish to keep themselves *au courant* with the latest phases of discovery.

It is, however, within the province of these lectures to treat fully another part of the subject, on which it is at present impossible to turn to any existing work for a connected and systematic exposition. I mean the modifications of the external form of this organ throughout the entire series of animals composing the class.

It is true that the form of the liver has been described with tolerable detail in many monographs of different animals, and that brief notices, as those in Cuvier and Meckel, have been given of its shape and subdivisions in the larger number of families; but the fault of nearly all these descriptions is—and I here include all those I have had myself occasion to make—that they have not been drawn upon any distinct plan or with any definite system of nomenclature, and are, therefore, either unintelligible, or at least of little value, in drawing comparisons between the condition of the organ of one animal with that of another. Of course, there are exceptions to this remark, and, especially where figures have been given, it is possible to understand the construction of the organ; but even these, from being drawn from various points of view, or with the respective parts in various and different positions with regard to each other, are often difficult to comprehend.

The most general, and at the same time rudimentary method of describing the liver, is to say that it is divided into so many lobes; but as few anatomists are agreed as to what amount of severance from the adjoining tissue, or what magnitude in the severed part should render it worthy to be designated a lobe, the number of these parts observed in the same organ is often differently stated by different naturalists, or even by the same naturalist at different epochs of observation.

Duvernoy, when engaged in editing the second edition of Cuvier's great work, and with ample materials at his hands, undertook an entire revision of the question, and put forth a new system of nomenclature.(c) His views are that the lobes of a multifid liver are not the result of divisions of the organ, but of additions to a central part, which he calls the "*principal lobe*," and which constitutes almost the entire liver of man and such animals as have this organ undivided. That to this principal lobe may be added a *right lobe* and a *left lobe*, as well as a *right lobule* and a *left lobule*, and that thus the organ, when complete, is of very symmetrical composition. That one or other of these may be wanting, but no further ones are ever added, although additional subdivision may occasionally take place by partial fission of some of these; thus the principal lobe may be further divided into right, middle, and left portions. It is the principal lobe, he says, which essentially constitutes the liver; the gall-bladder is always adherent to it, and the triangular, the coronary, and the suspensory umbilical ligaments are also exclusively in relation with it, and not at all with the accessory lobes.

Criticising this classification,(d) Professor Owen remarks that "fissures rather than lobes are added to the liver of quadrupeds."

With this view I entirely coincide, more especially as one of the arguments upon which Duvernoy relied—the attachment of the coronary and triangular ligaments—does not in the least bear him out. I do not know to what animals his observations on these ligaments relate, but directly we pass to the examination of any of the forms with deeply fissured livers, we shall see that the lateral borders of the coronary (the so-called triangular or lateral ligaments) are not inserted into the principal lobe, but extend upon Duvernoy's supposed additional or superadded right and left lobes.

The difficulty which other anatomists have met with arises from the liver being divided sometimes—as in man, ruminants, cetacea, etc.—into two main lobes, which have always been called respectively right and left; and in other cases—as in the lower monkeys, carnivora, rodentia, etc.—into a larger number of lobes. Among the latter the primary division usually appears at first sight to be tripartite, the whole organ consisting of a middle, called "cystic" (Owen) or "suspensory" (Rolleston),(e) and two lateral lobes, called respectively right and left lobes. This introduces a confusion in de-

(b) Two papers by Professor Cleland, in the *Journal of Anatomy and Physiology*, May, 1868, and May, 1870, contain some valuable remarks upon this subject.

(c) "Etudes sur le Foie," *Ann. Sc. Nat.*, second series, vol. iv. (1835), p. 269; also Cuvier, "Leçons Anat. Comp.," second edition (1835), vol. iv., part 2, p. 431, *et seq.*

(d) "Anatomy of Vertebrates," vol. iii. (1868), p. 483.

(e) "On the Homologies of the Lobes of the Liver in Mammalia" (*British Association Report*, 1861, p. 274). In this paper the importance of the caudate lobe—called by the author "right kidney lobule," from its constant relation to that organ—was, I believe, for the first time indicated. It had been confounded with the Spigelino lobe of man by many anatomists.

scribing livers by the same terms throughout the whole series of mammals, as the right and the left lobes of the monkey or the dog, for instance, do not correspond with the part designated by the same name in man and the sheep. There are, moreover, intermediate conditions in which neither the bipartite nor the tripartite system of nomenclature will answer, which we should have considerable difficulties in describing, unless we can introduce a new system such as I shall now attempt, or use much circumlocution.

The liver is generally described and figured after it is removed from the body of the animal and extended upon a flat surface; the various parts are then distinctly displayed, but some violence is done to their natural relations. In this position it usually assumes a more or less quadrate or oval form, with the long diameter placed transversely. One of the long edges or "borders" is thicker than the other, also shorter, and commonly more or less excavated in the middle. From the position of this border in man, it is commonly called the *posterior* border; or because it is the part by which the organ is mainly connected to the walls of the abdominal cavity, it may be called the *attached* border. The opposite border is thinner, generally more extended in length, and is called the *anterior* or *free* border. As regards quadrupeds, *superior* and *inferior* would be more correct terms for these borders; but the first-mentioned designations are so extensively used in describing the human liver, that it would not be worth while to supersede them for others, also of partial application. To the terms *attached* and *free* I believe no objection can be made. The two ends are universally called *right* and *left*, from their respective positions in the body. The surfaces are commonly called *superior* and *inferior*, from their general relation in man, or *diaphragmatic* and *visceral*. As there is little risk of misunderstanding the former terms, I shall generally employ them. Although, as just stated, the most usual shape of the entire organ when spread out is a somewhat transversely elongated oval, it may be of reverse form, the distance from the attached to the free border being greater than from right to left side.

When *in situ* the whole organ is more or less rolled round, in a cylindrical manner, upon a central axis, so that the two extremities approach each other, the superior surface becoming convex and the inferior surface concave. The attached border being generally less extended than the free, there is more or less tendency, when the liver is largely developed, to form a short hollow cone, the apex of which is at the attached, and the base at the free border, usually incomplete for a considerable space behind, in consequence of the right and left extremities not coming in actual contact. The liver is so yielding in texture, and changes its position so readily, that this natural form can only be satisfactorily ascertained in animals in which the abdominal viscera have been hardened with spirit *in situ*.

FIG. 4.

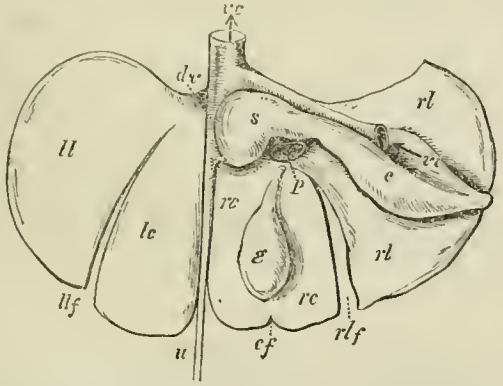

FIG. 4.—Diagrammatic view of the inferior or visceral surface of a multilobed liver of a mammal extended transversely. The posterior or attached border is uppermost. *vc*, the inferior vena cava; *p*, the vena portæ entering at the hilus or transverse fissure; *u*, the umbilical vein of the fœtus, represented by the round ligament in the adult, lying in the umbilical fissure; *dv*, the ductus venosus of the fœtus, degenerating into a fibrous cord or quite disappearing in the adult; *llf*, the left lateral fissure; *rlf*, the right lateral fissure; *cf*, the cystic fissure; *ll*, the left lateral lobe; *lc*, the left central lobe; *rc*, the right central lobe; *rl*, the right lateral lobe; *s*, the Spigelian lobe; *c*, the caudate lobe; *g*, gall-bladder.

The most important and characteristic part of the liver is the *hilus*, more commonly called *transverse* or *portal* fissure (Fig. 4, *p*). This is always placed on the inferior surface, and nearer the attached than the free border, and about midway between the right or left extremities. It is a transversely elongated depression, into which the portal vein and hepatic artery enter, and from which the biliary or hepatic ducts emerge. Next to be noted among the great landmarks provided by the blood-vessels in intimate relation with the organ is the notch in the middle of the attached border, whence the great hepatic veins come out to join the vena cava inferior, which always lies in the closest relation with this part of the liver. For a short portion of its course the vena cava lies in an oblique fossa excavated in the under surface of the attached border, passing from below upwards, from before backwards, and from the right to the left in relation to the regions of the liver itself, when removed from the body; but in reality it is rather the liver that is obliquely placed on the vein than the vein on the liver. It is not unfrequently so deeply embedded that the hepatic substance of either side of its channel meets above it, and it runs in a tunnel instead of a groove.

The third important point to note in connexion with the vessels of the liver is the position of the umbilical vein in fœtal life, indicated afterwards only by its more or less persistent remnant—the round ligament (*u*). This vessel, passing from the umbilicus, approaches the liver at its free border, and runs either in a groove on its under surface, or in a channel through its substance directly to the left end of the portal fissure, whence, after giving off its branch to that vessel, it continues its course, under the name of *ductus venosus* (*dv*), to the posterior border to join the vena cava.

The relation of these vessels to one another is absolutely constant, whatever may be the external form of the organ itself. They form a kind of frame, as it were, around which the substance of the liver is encrusted, and they must be taken as the starting-point in all attempts at partitioning the organ into regions for descriptive purposes.

The umbilical vein divides the liver into two segments, one to the right and one to the left of it. These probably correspond with the two primitive bud-like projections from the intestinal wall, of which the liver is first constituted. In the early human fœtus, and permanently in many animals, they are equal and symmetrically arranged, or very nearly so; and that they are natural divisions, notwithstanding the assymmetry that so often arises in the organ, and that they are corresponding or homologous parts throughout the series, can hardly be doubted.

When the two main parts into which the liver is thus divided are entire, they may be spoken of as the *right* and *left lobes*; when fissured, as the *right* and *left segments* of the liver, reserving the term *lobe* for the subdivision. This will involve no ambiguity, for the terms *right* and *left lobes* will no longer be used for divisions of the more complex forms of liver.

The fissure in which the umbilical vein runs is termed the *umbilical fissure*. It is not apparent on the upper surface, but its place is shown by the process of peritoneum which the vein carries out with it, constituting the suspensory ligament. Sometimes it is a deep and continuous fissure on the under surface, extending from the free border to the left end of the portal fissure, but often it is bridged over for a longer or shorter part of its course, and sometimes it is entirely obliterated, the vein running the whole of its course in the interior of the hepatic substance.

It frequently happens that each segment is further divided by a fissure running from the free, nearly, or even quite, to the attached border, and which I propose to call the *right* and *left lateral fissures*. When they are (as is usually the case) more deeply cut than the umbilical fissure, they give the organ that tripartite or trefoil-like form before spoken of, but which must not cause us to lose sight of its essentially bilobate character. The two lateral and the umbilical fissures thus divide the main portion of the whole organ into four principal lobes, which may conveniently be designated in order from the left to the right side by the following names:—*Left lateral, left central, right central*, and *right lateral*. (See Fig. 4.)

The left segment of the liver is rarely complicated to any further extent, except in some cases by minor or secondary fissures marking off small lobules, generally inconstant and irregular, and never worthy of any special designation. The principal differences to be noted depend on the degree of completeness of the lateral fissure and relative size of the two lobes.

On the other hand, the right segment offers several additional features which require attention. The right lateral fissure when complete passes into the right extremity of the portal fissure. The right central lobe, therefore, on its under surface, does not reach to the attached border of the liver, but is always bounded in that direction by the portal fissure. Moreover, when (as is

usually the case) a gall-bladder is present, it is always attached to the under surface of this lobe. The position of the gall-bladder with respect to the lobe may vary—sometimes it is merely applied to its surface, loosely connected by connective tissue; in other cases it is deeply embedded in a fossa, so much so sometimes as to appear on the upper surface of the lobe. Very often it is placed near the middle of the lobe—sometimes close to one or other of its lateral boundaries. In many cases the fossa in which the gall-bladder is sunk is continued to the free margin of the liver as an indent, or even a tolerably deep fissure. This is called the *cystic fissure;* but in consequence of its irregularity of position and frequent absence it is not of the same importance as the other fissures I have named, and does not mark off any distinct divisions of hepatic substance.

The right lateral lobe is of more complex form, and usually more subdivided than any of the others. It always has the great vena cava either grooving its surface or tunnelling through its substance, near the inner or left end of its attached border, and a peculiar prolongation of the lobe to the left between this vein and the portal fissure has long been known under the name of the *Spigelian lobe*. This is always a distinct hepatic region—sometimes a mere narrow, flat tract, but more often a prominent tongue-shaped process. Whatever may be its form, it is bounded in front or towards the free surface of the liver by the portal fissure; on the left by the fissure of the ductus venosus (sometimes, however, completely and smoothly bridged over, the surface boundary being then imaginary); posteriorly, and partially to the right, by the vena cava (unless this also is bridged over); but between this vessel and the right end of the portal fissure it has nothing to sever it from the adjoining part of the right lateral lobe. As the gastro-hepatic omentum covers the vessels passing into the portal fissure, the Spigelian lobe always lies upon it, and in direct relation to the pyloric end of the stomach.

The main body of the right lateral lobe is most commonly divided into two parts—not by a fissure such as the lateral ones, passing from the upper to the lower surface of the liver, but one which severs a part off from the under surface.

Fig. 5.

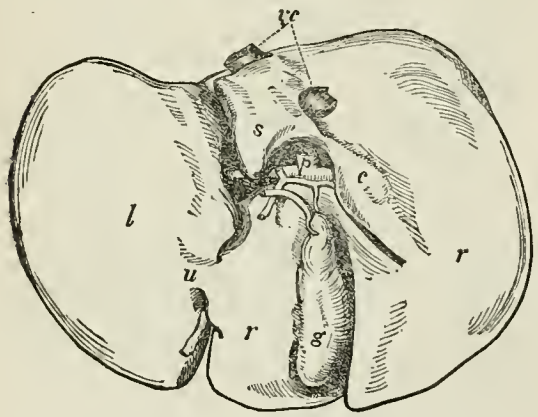

Fig. 5.—Under surface of human liver. *v c*, vena cava; *p*, vena portæ; *u*, umbilical fissure; *l*, left lobe; *r*, right lobe; *c*, Spigelian lobe; *c*, caudate lobe; *g*, gall-bladder.

On looking attentively at the under surface of the human liver (Fig. 5), a ridge, *c*, is seen, much more distinctly marked in some than in others, running from the Spigelian lobe to the middle of the right lobe, and bounding in front the fossa in which the upper part of the right kidney is lodged. This ridge has received the name of "*caudate lobe*." If our observations were confined to human livers, we might wonder why this very insignificant-looking eminence ever attracted any attention, much more received a distinct name, and was classed as one of the five lobes of the liver. But a very small acquaintance with comparative anatomy will reveal the reason. This part, which in man is almost obsolete, or rather, for want of the development of fissures, completely fused with other parts, in most animals attains a considerable magnitude and a very characteristic form and relations, sometimes being actually the largest of all the lobes of the liver.

When of average form and size, it may be defined as a piece severed from the under surface of the right lateral lobe, connected, by an isthmus at the left, narrowest, or attached end, to the Spigelian, behind which isthmus the vena cava is always in relation to it, channelling through or grooving its surface. It generally has a pointed apex, and its surface is deeply hollowed to receive the right kidney. Usually between this great hollow and the vena cava is a smaller impression, which fits upon the supra-renal capsule. Although essentially a portion of the right lateral lobe, and often more or less fused with it, a special designation is needed for it, and we cannot do better than retain the anthropotomist's "caudate lobe," keeping the name of "right lateral" for the remaining part of the lobe when divided; and the fissure which separates them may be called the *fissure of the caudate lobe*.

This completes the survey of the mammalian liver in its generalised form. It will be seen that six lobes have been recognised—two central, two lateral, and two accessory to one of the latter. No mention has been made of the so-called *lobulus quadratus* of human anatomy. This is simply the region of the under surface of the right central lobe, situated between the umbilical and the cystic fissures, and depends entirely upon the position of the latter for its size and form, or even its existence.

Locally associated with the liver, especially in the situation of its excretory duct, but very different in size, form, structure, and function, is the *pancreas*, which offers but comparatively few modifications throughout the mammalian series. It is more purely an organ of digestion than the liver, for no other function has been assigned to it than the effect that its secretion, poured into the duodenum by one or more ducts, has upon alimentary substances in preparing them for absorption by the lacteals and veins of the intestinal walls. Though many physiologists still have doubts about the particular effect the pancreatic fluid has on digestion, the prevailing opinion is that it emulsifies fatty substances, aids the saliva in converting starches into sugar, and to a certain extent acts upon nitrogenous substances, converting them into peptones.

ORIGINAL COMMUNICATIONS.

ON TINTING (TATTOOING) OPACITIES IN THE CORNEA.

By ARTHUR R. DUNNAGE, M.R.C.S.,
Dresser in the Eye Wards, Guy's Hospital.

About six years ago experiments were made at the Eye Department of Guy's Hospital in tattooing the cornea, which did not succeed. On the suggestion of Dr. Pagenstecher, the experiments were resumed in the beginning of last month (February) with a grooved needle recommended by him for this purpose.

The experiments have been uniformly successful. I propose to give an account of the operation and of its results. The grooved needle used in tattooing is made by Messrs. Weiss and Co., 62, Strand. The substances that have been used are indian ink, indigo, and burnt sienna, rubbed as thickly as possible.

The needle charged with the colour is pricked into the cornea as far required to leave a coloured point. The punctures must be made close together on the surface intended to be coloured, as the colour does not run, and the effect of each puncture is a coloured point. These points must be close together to get the effect of a black or coloured spot. To get a dead black spot the operation has to be repeated three or four times. It is as well not to tie up the eye after the operation, as the free colour seems to irritate a little if confined. In these cases where the eye was not tied there has been absolutely no inflammation.

Guy's Hospital.

Public Health and Local Government Bill.—Sir C. Adderley's Bill for consolidating and amending all the laws on public health and local government for England and Wales, exclusive of the metropolis, contains 437 clauses, and fills 179 folio pages. The Bill distinguishes by special marks clauses taken from the Acts proposed to be repealed, without any substantial alteration, except such as are in accordance with the recommendations of the Commission; also the clauses taken from the dropped Government Bill of last Session on rating and local government; also a few clauses taken from Local Consolidation Acts, or from the Telegraphs or other public Acts. The remaining clauses with no special mark against them are new, and, like other clauses, carry out the recommendations of the Sanitary Commission. The clauses on rates re-enact existing law.

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Medical Times and Gazette.

SATURDAY, MARCH 9, 1872.

THE GENERAL MEDICAL COUNCIL.

It will be remembered that in July last year the General Medical Council resolved that they would hold a meeting early in 1872, to receive the proposals of the Licensing Bodies for Conjoint Examinations, and to consider whether any steps should be taken to carry out the resolutions of the Council in favour of such combinations. Accordingly the Council met, as we informed our readers, on Thursday last, February 29, and their chief work has been to receive and consider the answers made by the various Licensing Bodies to the resolutions of the Council recommending "That a Joint Examining Board should be formed in each of the three divisions of the kingdom," and that "the Universities and Medical Corporations established in each division of the United Kingdom shall be requested to concert a scheme for the constitution and regulation of a Conjoint Examining Board for that part of the kingdom to which they belong." It will be seen, from our report of the proceedings of the meetings of Council, that not a single scheme was laid before them answering to their recommendation. The nearest approach to it was the scheme for the combination of the two Royal Colleges of London and some of the English Universities; and our readers know how imperfect that scheme is, the Apothecaries' Society of London having been left out in the cold, and the adhesion of the University of London being—at present, at any rate—barred by a legal difficulty.

This scheme, however, received the approval and sanction of the Council; and this was to be expected, perhaps—for the representatives of the two Royal Colleges of London and the four English Universities were certain to support it, as it had been approved of by the Bodies which they represent. Other Members of Council, who are Fellows of the London College of Physicians, would also look with favour on a scheme which had been promoted by their own College. The Scottish representatives might be suspected of feeling no great repugnance towards a scheme, the imperfections of which might possibly cause an increased demand for Scotch Surgical diplomas; and while neither the Scottish nor the Irish Bodies presented a scheme for the formation of a Conjoint Board in their divisions of the kingdom, they were perhaps nothing loth to see the plan tried in our division, feeling probably some beneficial curiosity as to how it would work, and being not unmindful of the axiom "*Fiat experimentum in corpore vili.*"

It is remarkable that Dr. Acland, in seconding Dr. Bennett's resolution, "That the Council now proceed to take into consideration the scheme submitted to them by the Conjoint Colleges of London," observed that it was entirely competent to the Colleges of Physicians and Surgeons to present a Conjoint Scheme for England without consulting any other Body; and that the adhesion to the scheme of other Bodies was no concern of the Council. Seeing that the resolution of the Council expressly requested that "the Universities and Medical Corporations established in each division of the United Kingdom" would "concert a scheme for the constitution and regulation of a Conjoint Examining Board," we venture to think that most people would understand these expressions to mean exactly the opposite of Dr. Acland's opinion, and would expect that the Council would, above all things, desire and be concerned for the adhesion to any scheme of all the Licensing Bodies in that part of the kingdom to which it applied. It is, of course, competent to any two Licensing Bodies to form a Conjoint Scheme, as the College of Surgeons of Edinburgh and the Faculty of Surgeons and Physicians of Glasgow did do years ago; but we hardly need say that that is a very different matter from the formation of "one Conjoint Examining Board for each division of the kingdom." Sir Dominic Corrigan's speech on the subject is open to criticism for similar reasons. He argued that the scheme presented to the Council was merely a plan for the conjunction and co-operation of the two Royal Colleges for examining purposes, and that the Council had nothing to do but to deal with it as an independent matter, while he regarded the "Apothecary question," as he called it, as only "a private squabble" between the Licensing Bodies that the Council had no right to concern itself about. This was taking a very narrow and inadequate view of a most important subject. The scheme had been presented to the Council as the nearest approach it had been possible, after great and long-continued efforts, to make towards forming for England the one Conjoint Examining Board that the Council desiderated; and that Body certainly not only had a right to inquire why the scheme was imperfect, but it was their duty to do so, and to assure themselves that the alleged impediments to true unification were real, before they gave their sanction to an imperfect scheme. The result of the whole debate was, that the Council agreed to Dr. Bennett's motion as amended by Dr. A. Thomson, viz.—"That the Council approve of and sanction the Conjoint Scheme of Examination submitted by the Royal College of Physicians of London and the Royal College of Surgeons of England, to which the Universities of Oxford, Cambridge, and Durham have given their adhesion. The Council has, at the same time, to express its desire that means may be formed by which the University of London and the Apothecaries' Society may be enabled to join in the scheme, so as to render it a complete scheme for a Conjoint Board for England."

Few persons, we suppose, will deny that a very large step has thus been taken towards the attainment of that system of unification of Examining Boards and uniformity of examinations which the Council so strongly believe in, and have recommended so urgently to the Licensing Bodies; but very diverse opinions will be held as to the consequences—whether they will be for good or for evil to the Profession and the public. No doubt many very able men, of large experience and ripe judgment, regard the system towards which this resolution tends as a thing of perfection, to be desired and worked for without doubt or hesitation, and a crowning of the edifice of Medical education; but many other men, of equal weight and authority, regard it as a very doubtful experiment at the best, and not a few look on it with dislike and dread, as certain only to lead to disappointment, confusion, and mischief. We do not propose, however, now to discuss the question whether the results of the system, should it be fully carried out, are likely to be good or bad. On that point we are content

at present to recommend to our readers a careful perusal of Sir Robert Christison's vigorous and lucid letter against what he terms "the complex, costly, vexatious, and doubtfully expedient check by the scheme of Conjoint Examining Boards," and of the important memorial drawn up by Professor W. Gairdner, of Glasgow, and signed by many of the most eminent Teachers and Practitioners in Edinburgh and Glasgow. But some, at least, of the immediate results of the resolution passed by the Council must be evil. So long as the charter of the Society of Apothecaries remains in force and unaltered, that body must be ready to examine all candidates for its licence who have duly complied with its regulations, and the Medical Council cannot refuse to register the licences so obtained; thus, men with only one qualification, and having passed no examination in Surgery, will be on the Register of legally qualified Practitioners. Then, should the College of Surgeons refuse to examine for a Surgical diploma men possessing this licence, except by means of the Conjoint Board, and at the charge of the thirty-guinea fee, one or both of two things may happen. The Society of Apothecaries may seek to compel the College to examine such candidates without subjecting them to the new double examination and the increased expense, as the Society is advised by high legal authority that the new combination is illegal; and then we shall see a costly and scandalous struggle between these Bodies, or the Society's licentiates may obtain, at a comparatively small cost, a Surgical diploma from beyond the Tweed; for it can scarcely be doubted that some one or more of the Scottish Licensing Bodies will be canny enough to recognise that by a cordial and hospitable reception of English candidates, or by some form of co-operation with the Society of Apothecaries, they may be able to help worthy and deserving men to a Surgical diploma, and to put money in their own coffers. Such a state of things, though it might not last long, would be deplorable, and it is to be earnestly desired that some means may yet be found to bring the Society of Apothecaries into the new scheme. Looking at the number of their licentiates, they are by far the most important Licensing Body after the College of Surgeons, and we cannot but believe that their adhesion to the new scheme might have been obtained had the alleged difficulties been discussed with a hearty desire to overcome them. The statements of the way in which, and the reasons why, the negotiations were broken off differ, and we cannot pretend to judge whether the account given by the Society or that given by the Colleges is most exact, but it seems not improbable that some hastiness has been shown on both sides, and we must confess to thinking that at the last the Society was treated with scant courtesy and consideration. The address of the President of the Council at the opening of the present session seems rather wanting in respect to the Society. He, no doubt, meant to be courteous, but assuredly it was not complimentary, either to the Society or to their representative, to suppose that he required to be coached up in the proceedings of the Council relative to the formation of Conjoint Examining Boards. We have been unable to discover that any adequate notice has been taken of the legal points raised by the Society of Apothecaries, and mentioned by them in the protest they presented to the Council. The Society state that they are informed on high legal authority that the Colleges cannot refuse to examine separately; and it was stated incidentally during the debate that the legal advisers of the Colleges hold a different opinion; but was any attempt made to procure a conference of the legal authorities on the subject? Or, supposing that really insuperable legal difficulties do exist, might not an effort be made to obtain, during the present session of Parliament, a short Act of one clause, empowering all the Licensing Bodies in each division of the United Kingdom to form a Conjoint Examining Board, all existing enactments to the contrary notwithstanding? Such an Act would do away with all difficulties, and prevent the scandal and the confusion worse confounded with which we are at present threatened; and it does not seem possible that the Conjoint Examining Board system can ever be carried out without some help from the Legislature. We are supposing for the moment that the General Medical Council are quite right in all they are attempting for the raising of Medical education and the improvement of the examining system. But it must be observed that all that has been done, and is being done, by the Council tends to make it a more and more costly work to produce a legally qualified Medical Practitioner; and one cannot help wondering at times what is to become of those sparsely populated country districts and those densely crowded poverty-stricken parts of cities in which the general Practitioner of the present day is content to labour. Will his successor, of higher and more costly education, labour year after year for such a pittance as can be gained from such clients? We trow not. And what then? Is his place to be taken by the druggist, or, mayhap, by the Medical woman of the future? —or are Dispensaries and Hospitals still more widely to demoralise the poor by offers of "charitable Medical relief"?

Since the above was written, the representative of the Society of Apothecaries has again, on the last day of the session, spoken of the earnest desire of the Society to join the Conjoint Board, and make the English scheme more perfect; and we gladly learn from him that every means will be taken to overcome the difficulties which had arisen.

The consideration of the communications from Scotland regarding Conjoint Examinations led to a very long, and at times very warm, debate. It appears pretty clearly that by far the greater number of the Licensing Bodies in Scotland look with no little disfavour on a Conjoint Examining Board as understood by the Medical Council, but that, in order to satisfy or gratify the Council, they have been taking the matter into their serious consideration. Dr. Andrew Wood set forth at considerable length the points in which the relative positions of the Universities and Corporations to each other in Scotland differ from what obtains between the Universities and Corporations in England, and the consequent necessity of a differently constituted Conjoint Board; he suggested that the English Bodies might take some very good hints from the propositions already laid down by the Scottish Bodies, and thought that if they were allowed a little more time they would produce a better scheme than the English one, and "more in consonance with the object at which the Council were aiming." Dr. Humphry hoped that the Scotch authorities would persevere in their efforts to secure such an examination as would be recognised and sanctioned by the Council; he would "still hold open the door to Scotland and Ireland," and hinted that if they did not come in at it "they might fall into the hands of the Legislature." And he well added that "it was most important for the individuality of the Profession that they should as far as possible govern themselves. Any profession which relinquished self-government would relinquish one of its highest privileges and greatest duties." Dr. Alexander Wood delivered a long speech on the wrongness of the Council's ideal of a Conjoint Examining Board, on the *lâches* of the Council in the matter of the supervision of examinations, on the character of the Scotch Universities and Corporations, and on his idea of the principles on which a Conjoint Examining Board should be founded. "His views were of a much higher character than those on which the imperfect English scheme was founded, and he trusted before many months were over the Scotch Bodies would be in a condition to bring forward a scheme embodying those principles." Dr. Quain could assure Dr. Alexander Wood that he had not the slightest conception of the English scheme, and that the difficulties of Scotland would be entirely met by adopting the English scheme. Dr. Parkes was convinced that Scotland was as far from forming a Conjoint Board as Ireland, "and that was going as far as any human event could be";

and he thought there was nothing left but to proceed by the aid of the Legislature. Dr. Storrar said that any proposal from Scotland which did not contemplate a complete examination from the commencement, would not receive his consent; to which Dr. Andrew Wood promptly replied, "Then you will never get it." And Sir Dominic Corrigan said that he could not see that there was a reasonable hope that the Conjoint Scheme would be carried out in Scotland. "Dr. Humphry had talked about opening the door to the Scotch and Irish Bodies, but Ireland did not want a door opened. Dr. Parkes had insisted on decisive steps being taken. He had proposed decisive steps once before in the case of the Queen's University, but the Queen's University quietly held up its hands, and said to Dr. Parkes, in the words of Shakespeare, 'Come on.' Did he ever come on? He did not. Let him, then, take steps—such as those he took against the Queen's University." This was the amusing contribution to the debate, and Drs. Allen Thomson and Alexander Wood contributed a quarrelsome element, in a not very seemly squabble about an expression of Dr. Alexander Wood's implying that the Scotch Universities were striving to get rich by degrees. The debate ended in an expression of regret by the Council, that "no scheme had been passed and submitted to the Council by the Medical Authorities in Scotland for establishing a Conjoint Examining Board."

This was on Saturday, the third day of the session; but on Monday, the fourth day, the fray was renewed on Dr. Parkes's minatory motion—"That, in case the Medical authorities for Scotland have not succeeded in forming a proper scheme for the formation of a Conjoint Board for Scotland by January 1, 1873, the Council will endeavour to obtain a legislative enactment under which a Conjoint Board for Scotland may be constituted." This motion, recommended in a speech which Sir Dominic Corrigan politely characterised as even more ill-judged than the motion itself, was more than Scotch flesh and blood could bear, or could be expected to bear. Dr. Andrew Wood accordingly desired that Dr. Parkes would understand that "Scotland would not be dragooned into taking action. Scotland would judge for itself what was right, and, whilst it would be convinced by reason and argument, it would never yield to a pistol presented at its head," and he bade the Council recollect the emblem of Scotland, and its motto—*Nemo me impune lacessit*. A large amount of speaking was found necessary; but in the end the Council adopted a "courteous pressure" motion from Sir W. Gull instead of Dr. Parkes's pistol, and hoped that such a scheme as the Council may sanction may be submitted to them by July 1, 1872. Parallel resolutions were passed, but with much less consumption of time, respecting the Medical Authorities in Ireland. We have not time or space this week to examine at all into the merits or demerits of the Scotch or Irish ideas of what a Conjoint Examining Board should be—we may return to the matter at some future time; but it is interesting to observe that while Scotch representatives proclaim the vast superiority of their sketch scheme over the English scheme, we are assured from Ireland that the Irish plan will be "something more exquisite still."

The last business of any note before the Council was Dr. Acland's motion for a Committee to "consider and report whether the General Medical Council has power to make rules for the special education of women, such as may entitle them to obtain a qualification to be certified by the Council. And that the Committee do further report for what purpose such qualifications, if any, should be granted, and what are the most desirable means for educating, examining, and certifying in respect of them, with special reference to midwifery, the management of Medical institutions, dispensing, and nursing." This was passed by the very narrow majority of 11 to 10. We cannot this week consider the meaning of this motion, but, if it means only what Dr. Acland says it does, it seems to propose that the Council shall set up a register of well-educated female nurses and dispensers, midwives, and Hospital managers. Why not male nurses, dispensers, and Hospital superintendents also? The remainder of the work consisted chiefly of formal votes; and the Council rose on Tuesday.

THE WEEK.

TOPICS OF THE DAY.

The health of the Prince of Wales is now so far recovered that he will soon undertake the journey to the South of Europe, where he has been recommended by his Medical advisers to spend the spring. Dr. Vivian Poore is selected to accompany his Royal Highness.

The *coup de grâce* in the Tichborne baronetcy case was given when proof was produced that the real Sir Roger had certain tattooed marks on his arm, which were wanting on the arm of the plaintiff. The case is most remarkable in its Medico-legal aspects; but the General Medical Council excludes it, with many other things, this week. We reserve it, however.

Another subject of great interest and importance to the Profession is the proposed sanitary legislation now before the House of Commons. It will suffice now to say that much labour has been bestowed on Mr. Stansfeld's Bill by the Medical Department of the Privy Council. The large area of legislation over which its provisions extend will occupy us editorially in our next and succeeding numbers. Sir Charles Adderley's Bill embodies the recommendations of the Royal Sanitary Commission.

THE PRESIDENT OF THE MEDICAL SOCIETY OF LONDON.

The President of the Medical Society of London, Dr. Andrew Clark, entertained the Fellows of the Society, with a large party of the Medical Profession and of ladies, at a *conversazione* at the Queen's Concert Rooms, on Tuesday, March 5. The band of the Royal Artillery discoursed excellent music from the gallery. The rooms presented a brilliant appearance, and a very pleasant evening was passed.

NETLEY HOSPITAL AND NAVAL MEDICAL STUDENTS.

It is stated by a correspondent of the *Army and Navy Gazette* that, notwithstanding the feeling now generally prevailing at that establishment in favour of a naval Medical officer being appointed to superintend the studies of the gentlemen sent there by the Admiralty with the rank of Professor, Staff-Surgeon J. D. Macdonald, M.D., etc., serving in her Majesty's ship *Lord Warden*, has been nominated to proceed to Southampton Water, with the inferior title of "Assistant-Professor."

LONDON WATER-SUPPLY.

The agitation against the water companies is becoming "fast and furious." The important parish of St. James's, Westminster, has now joined in the struggle. The vestry have requested Dr. Lankester, their Officer of Health, to call the attention of the different water companies to the impure state of the water supplied by them. The vestry, also, intend to petition the House of Commons to give the Metropolitan Board of Works powers to enforce on the various water companies a pure and ample supply of water.

SMALL-POX AND VACCINATION IN JERSEY.

There is no law for compulsory vaccination in Jersey; small-pox is often very prevalent, and is so at the present time. A quarter of the children of the island are unvaccinated, and the mortality has been severe. At the sitting of "the States," on the 28th ult., it was sought to reproduce a Bill, which had been rejected in 1867, to enforce vaccination amongst the infant population. It was proposed, as an epidemic of small-pox was prevalent, that the Bill might be passed at once as "a measure of urgency." There was a sharp discussion on this point, and

though "the enemy was in the camp," the besieged were determined upon not resisting. One of the chief opponents of making the Bill urgent was the rector of St. Mary's, who was "prepared to show, by far more satisfactory figures than he produced two years ago, that vaccination was an evil, and that it did not produce any such marvellous results as it was pretended were due to vaccination; but, on the contrary, there was no guarantee as to whether the vaccination would be properly performed. Even in England, he believed, the restrictions on this subject would soon be withdrawn." The worthy rector afterwards made use of the following somewhat strong language:—"I repeat what I said on a former occasion: I would rather see my children die by the hand of God than by that of Dr. Low."

Is it to be wondered at that many of the lower orders should object to vaccination, when a beneficed clergyman—a man of education and position—should talk such nonsense and display so much ignorance? The majority of the deputies who spoke evinced a knowledge of the subject well worthy of them, and urged the necessity of legislation on the matter. The opponents of despatch, however, carried the day. The Bill was ordered to be printed, and discussed on the 13th of the present month. This delay of even a fortnight may be the cause of much disease and many deaths. We shall look forward to the discussion with interest. We believe that there is not a single Medical Practitioner in the island opposed to vaccination. At all events, Dr. A. Le Rossignol, who has taken great interest in the matter, and shown much commendable spirit respecting it, has published in the *Jersey Times* a list of thirty members of the Profession who have placed their signatures to the following document:—

"We, the undersigned members of the Medical Profession, residing in the island of Jersey, feel called upon at the present moment to make known our opinion that vaccination is the only means of preventing the development of an epidemic small-pox; and that as no possible bad effects, present or future, can result from the proper performance of that operation, it appears to us urgent that measures similar to those existing in Great Britain and Ireland be adopted so as to enforce the vaccination of all classes."

Will such a statement of opinion have its just and proper influence on the recalcitrant members of "the States"?—*Nous verrons.*

SMALL-POX JOTTINGS.

In the Islington district during the past week there had been four fresh cases of small-pox, against three in the previous week. There had been one death from the disease.——Only one death from small-pox was reported last week to the Camberwell Vestry. The disease was declining rapidly in the parish.——Small-pox has appeared in Rutland. It is reported that the clothing of a person who died at Sheffield from the disease imported it into the town.——Small-pox cases have occurred at Jersey. We have referred to the prevalence of this disease in a separate article. The disease was brought to the island by French sailors.——No death from small-pox had taken place in the Limehouse district in the past fortnight, but eight fresh cases had been brought under notice.——During the week ending the 29th ult. the number of new cases admitted to the Aberdeen Hospital was 11, bringing up the total of admissions to 108; the number discharged recovered during the week was 26, making 48 discharged in all. The deaths amount since the opening of the Hospital to 16, of which 2 occurred during the past week. The number of patients in Hospital on the 29th ult. was 41. It is to be regretted that the returns do not specify the number of vaccinated and unvaccinated persons attacked by the disease. The additional building has now been opened, and is authorised to receive 24 patients. The foregoing figures indicate a sensible abatement of the epidemic.——The Medical Officer of Lambeth reports that during the four weeks ending the 26th ult. small-pox caused 40 deaths, or 11 less than in the previous four weeks. Of these 30 occurred in Stockwell Hospital, and 20 of these were strangers. "I, however," the Doctor adds, "fear we may expect an increase of the disease for the next month or two, in consequence of the masses of people congregated together during the last few days, many of whom I saw presenting the appearance of being but lately recovered from the disease, and no doubt hundreds came from neglected houses and localities, thus endangering the health and lives of others."——It was reported to the Hackney Board of Guardians that no patient belonging to the union during the past week had died in the Homerton Hospital, but eight had been discharged therefrom.——In the Homerton Hospital the number of small-pox cases had decreased to ninety-three.——In the Stockwell Hospital a fortnight ago the number of cases was 195, the week before 149, and at the present time 111.——In the Hampstead Hospital the number of cases had decreased from 210 last week to 184 this week.——In Sheffield 28 deaths occurred from small-pox last week; of these, 12 were unvaccinated, 3 vaccinated, and the remainder was not stated. The fatal cases on the two previous weeks had been 33 and 37. Since the beginning of October last, 673 deaths have resulted from small-pox within the borough.——Dr. Lankester, in his report last week to the St. James's (Westminster) Vestry, stated that no new cases of small-pox had been brought under his notice.——The Vaccination Officer reported to the Poplar Board of Guardians last week that 3 deaths from small-pox had occurred in the Union during the week, and that 13 new cases had been brought under notice. In the same period 66 persons were vaccinated at the public stations, and there were 8 small-pox patients now under treatment in North-street Infirmary. The Officer also stated that the new Vaccination Act had caused a great addition to the work he was required to perform. It was resolved by the Board to provide separate and suitable conveyances for the removal of small-pox and fever patients to the Hospital.——Small-pox is alarmingly on the increase in Erdington, especially in the immediate vicinity of the old workhouse, which is situated in the most populous part of the village, and is now being used as the small-pox Hospital. The situation is thought to be highly dangerous to the inhabitants, and the guardians are about to arrange for the reception of persons suffering from the disease in an isolated building at some distance from the village.——The weekly returns of small-pox cases presented to the Wolverhampton Board of Guardians last week showed in Wolverhampton 25, against 44 cases the week before; decrease, 19. In Bilston district, during the same period, there were 28 cases, against 19 the week before; increase, 9. In Willenhall and district there were 15 cases, against 9 the week before; increase, 6. There were 6 patients in the Hospital in the Union. The returns show a decrease in the whole Union of 3. Attention was drawn to the increase of the disease in the Bilston district, and it was stated that that morning a woman had walked from Bilston suffering from small-pox, and mingled with the other applicants for relief. Her case was a very bad one, and the woman was at once admitted into the small-pox Hospital in the house.——In Walsall, at the weekly meeting of the Board of Guardians, the report showed 6 deaths from small-pox last week, and 4 new cases had occurred during the week in the workhouse. Since the outbreak of the disease there had been 21 cases brought to the workhouse, making a total of 31; of these, 12 had been cured, 5 had died, and 14 remained.——A lodging-house keeper of Archibald-hill, St. Georges's-in-the-East, was convicted on Monday, at the Thames Police-court, of having kept a person upon his premises who was suffering from small-pox, without notifying the same at the nearest police-station. A fine of 20s. was inflicted.

PARLIAMENTARY.—PRESERVATION OF INFANT LIFE—EDUCATION OF DEAF MUTES—ADULTERATION OF FOOD AND DRUGS.

In the House of Commons on Wednesday, March 6,

Mr. Charley moved the second reading of his Infant Life

Protection Bill. He drew attention to various facts proving the necessity of legislation on the subject. Mr. Hurst criticised the Bill, on the ground that its provisions do not extend to persons who trust children to baby-farmers. The Bill was supported by Mr. Kinnaird, Mr. D. Dalrymple, and Dr. Brewer, who hoped that public opinion would ultimately sanction the periodical inspection of baby-farms. Mr. Walpole complained that the Bill only dealt with part of the question. He urged the Government to make the registration of births and deaths compulsory. This drew from Mr. Bruce the information that the President of the Local Government Board is about to introduce a Bill for the compulsory registration of births. After some remarks by Dr. Playfair, Mr. Henley, and Mr. Winterbotham, the Bill was read a second time.

The Bill for the Education of Blind and Deaf-Mute Children, through the compulsory action of boards of guardians, was read a second time.

Mr. Muntz, in moving the second reading of his Bill for Preventing the Adulteration of Food and Drugs, intimated that, as Mr. Stansfeld's Public Health Bill would make it unnecessary, he should not proceed further with it if that Bill were carried. Lord E. Cecil, Sir D. Corrigan, and Mr. Stansfeld made some remarks in general approval of the Bill, and it was read a second time.

GENERAL CORRESPONDENCE.

THE ANALOGY BETWEEN SMALL-POX AND CHOLERA.

LETTER FROM DR. GEORGE JOHNSON.

[To the Editor of the Medical Times and Gazette.]

SIR,—Dr. Fulham Turner, having subscribed his name to his second letter, shall, with your permission, have a serious though a brief reply.

And first I must correct his statement that "the question was whether the eruption of small-pox is essentially curative." The real question is, whether "the choleraic discharges are as essentially curative as is the cutaneous eruption of small-pox?" It is obvious that the two questions differ materially. The variolous eruption, like the choleraic discharges, may be so copious as to kill. Neither the one nor the other, then, can be said to be absolutely and essentially curative; yet, in their general curative tendency, they are fairly comparable with each other.

In the treatment of small-pox, the main point is to insure a free ventilation of the sick-room, in order to remove the poisonous emanations which are thrown off from the patient's skin and lungs—just as in the treatment of cholera the primary object is by copious draughts of water to assist in washing out morbid secretions from the alimentary canal. The old heating method of treating small-pox was precisely analogous to the modern opiate and stimulant treatment of cholera. The two plans are about equally irrational and equally destructive.

If Dr. Turner will take the trouble to read carefully my paper on cholera which has recently appeared in your columns, he will find there no statement that can fairly suggest the question whether I try "to sweat out, or purge out, or pump out the poison of small-pox, scarlet fever, etc." This question is an indication that its author fails to distinguish the natural from the artificial elimination of poisons—a distinction which I have always endeavoured to maintain.

Perhaps your correspondent will inform your readers whether, in the treatment of these diseases, he attempts to drive in the eruption by the continuous application of cold wet sheets to the surface, and, if so, with what results. It would also be interesting to know whether he and others who disbelieve in the natural elimination of morbid poisons reject the doctrine of contagion; and, if not, how a disbelief in one can be reconciled with a belief in the other.

I look upon the throat affection and the swollen cervical glands of diphtheria as the local result of a morbid poison, on its way into the system, bearing nearly the same relation to the constitutional symptoms as the primary sore and the enlarged inguinal glands to secondary syphilis. In a less degree, and with less certainty, the sorethroat of scarlet fever and erysipelas admits of the same interpretation. In the treatment of diphtheritic exudation, the object is to disinfect and destroy the local deposit, in order to prevent the extension of the disease to the air-passages and the increase of blood infection. It is of vital importance to distinguish the symptoms which indicate the entrance of a poison from those which are associated with its exit.

Let me add that, intending no discourtesy to my critics, I am too much occupied with other matters to reply to any further questions or comments. I am, &c.,

Savile-row, March 4. GEORGE JOHNSON.

NEW INVENTIONS.

BISCUITS FOR BABIES' FOOD.

(*F. H. Ulrich*, 60, *Deichstrasse, Hamburg.*)

WE have received from Mr. Ulrich a tin of biscuits intended for infants' food. They are smaller in size, not so sweet, and of a paler colour than the Robb's biscuits, and they more nearly resemble the best specimens of Norwich biscuits. They are prepared in the same way as other biscuits of the class. The desiderata are, that the biscuits shall fall asunder and make a creamy or thin custard-like liquid, without the smallest lumpishness; that they shall be perfectly free from acidity, and that when prepared they shall keep for some hours without acidity; and that they shall be easily digested. Mr. Ulrich's biscuits answer these tests, and we venture to think that they will become competitors with the most favoured kinds of babies' food. The importance of wholesome, easily prepared food in diminishing infant mortality is great.

MEDICAL NEWS.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 29:—

Atkinson, John Charles, Kew, Surrey.
Collier, Nicholas Constantine, Turnham-green.
Eady, George John, Chertsey, Surrey.
Fendick, Thomas Rowing, Mylen-street, E.C.
Scott, Hubert Payne, Tiverton, Devon.

The following gentlemen also on the same day passed their first Professional examination:—

Bull, William, Dublin.
Clark, Frederick Cheesman, St. Bartholomew's Hospital.
Pridmore, Campbell William, Westminster Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ADDY, B., M.R.C.S., L.S.A.—House-Physician to St. Thomas's Hospital.

DICKINSON, E. H., M.A. Oxon., M.B., M.R.C.P.—Physician to the Northern Hospital, Liverpool.

HUNT, RICHARD.—Assistant Resident Medical Officer to the General Infirmary, Leeds, *vice* Simeon Snell, resigned.

LINDSAY, ALEXANDER, L.R.C.S. Edin.—Medical Officer and Public Vaccinator to the Shap District, West Ward Union.

ROBERTS, CHARLES, F.R.C.S.—Assistant-Surgeon to the Victoria Hospital for Sick Children, Queen's-road, Chelsea.

NAVAL AND MILITAR YAPPPOINTMENTS.

CANNON, RICHARD, Assistant-Surgeon to the *Nereus*.

KEARNEY, EDWARD BARRETT (Staff Assistant-Surgeon), retires upon temporary half-pay.

L'ESTRANGE, GEORGE WADDINGTON (Staff Assistant-Surgeon), retires upon temporary half-pay.

MACDONALD, Dr. JOHN D., Staff Surgeon to the *Duke of Wellington* (additional), for service at Netley Hospital.

WELLS, SAMUEL S. D., Staff Surgeon to the *Lord Warden*.

BIRTHS.

BLOMFIELD.—On February 29, at 20, Rye-lane, Peckham, the wife of Josiah Blomfield, M.D., F.R.C.S., of a daughter.

COCKCROFT.—On March 1, at Keighley, Yorkshire, the wife of T. H. Cockcroft, M.D., prematurely, of a son, who survived his birth only a few hours.

HUTTON.—On March 3, at Sandgate, Kent, the wife of George Allan Hutton, Surgeon Rifle Brigade, of a daughter.

LIDDARD.—On February 27, at 54, Lancaster-road, Westbourne-park, the wife of Dr. Thomas Liddard, of a son.

MURRAY.—On February 26, at 49, Buccleugh-street, Dumfries, the wife of Patrick Maxwell Murray, M.D., of a daughter.

MARRIAGES.

ADAMS—ELWIN.—On March 5, James Adams, of Hampton Gay, Oxon, to Elizabeth Jeken, daughter of the late Jeken Elwin, M.R.C.S., formerly of Broad-street-buildings, London.

BULLEN—JAMES.—On March 2, at St. John the Evangelist's, Redland, Bristol, W. P. Bullen, solicitor, to Elizabeth Wanklyn, widow of Joseph Wilmot James, Surgeon, of Stoke Newington-road, London.

GRATTAN—IRELAND.—On February 26, at St. Peter's Church, Dublin, Henry Grattan, Captain 35th Regiment, elder son of the late Lieutenant-General John Grattan, C.B., Colonel 17th Regiment, to Fannie Sarah S., only daughter of Richard S. Ireland, M.D., J.P., of Stephen's-green, Dublin, and Clofass, county Wexford.

HENDLEY—HULL.—On February 1, at Allahabad, N.-W. P. India, Dr. Thomas Holbein Hendley, Surgeon to the Political Agency, Johdapoor, Bengal, to Jane Elizabeth, third daughter of the Rev. J. D. Hull, vicar of Wickhambrook, Suffolk.

MILLAR—IBBETSON.—On March 2, Robert Millar, M.D., Surgeon-Major on the retired list of the Bombay army, to Annie, widow of the late Frederick James Ibbetson, late Captain 2nd Dragoon Guards.

VATCHER—LANKESTER.—On February 28, at the parish church, Hampstead, the Rev. J. Sidney A. Vatcher, B.A., Old Alresford, Hants, to Marion, second daughter of Edwin Lankester, M.D., F.R.S., Coroner for Middlesex.

DEATHS.

BRENT.—On February 26, at Sydney Cottage, Woodbury, Robert Brent, M.D., Colonel-Commandant 1st Ad. B.D.A.V., in the 53rd year of his age.

BIDDLE, HENRY, M.R.C.S., at 3, Angel-terrace, Edmonton, on March 4, aged 71.

EVANS, BENJAMIN, F.R.C.S., at Acre House, Brixton, on March 2, aged 70.

GATIS, JAMES, M.R.C.S., of North-street, Wolverhampton, on February 28, in his 61st year.

GRANVILLE, AUGUSTUS BOZZI, M.D., F.R.S., at 20, Folkestone-terrace, Dover, on March 3, in his 89th year.

HAIRE, THOMAS, M.D., at 5, Kildare-terrace, Bayswater, on February 27.

HICKEY.—On February 25, at Newtown Lodge, Gramore, Ireland, Matilda, wife of J. Lorenzo Hickey, Esq., Registrar of the United Diocese of Cashel, etc., and eldest daughter of the late John Briscoe, Esq., M.D., of Waterford.

HUNT, CAROLINE STAFFORD, youngest daughter of Thomas Hunt, F.R.C.S., at 23, Dorset-square, on February 28, aged 21.

MACTURK, WILLIAM, M.D., M.R.C.P., at Eldon-terrace, Bradford, Yorkshire, on March 2, aged 76.

POWER, CATHERINE, eldest surviving daughter of the late John Power, M.D., at Mancetter Cottage, Atherstone, on March 3.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM QUEEN'S HOSPITAL.—Resident Physician and Medical Tutor. Candidates must be Graduates in Medicine of a University of Great Britain or Ireland. Applications, with diplomas and testimonials, to Mr. H. C. Burdett, on or before March 22.

CARMARTHEN COUNTY AND BOROUGH INFIRMARY.—House-Surgeon. Must be M.R.C.S. and L.S.A. A knowledge of the Welsh language is necessary. Applications to Mr. H. Howell, King-street, Carmarthen, on or before April 10. Election on the 12th.

CAXTON AND ARRINGTON UNION.—Medical Officer for the Caxton No. 1 District of this Union. Candidates will be required to possess the qualifications prescribed by the General Orders of the Local Government Board. Residence within the district required. Applications to Mr. H. Mortlock, Clerk to the Guardians, on or before March 11. Election the following day.

COUNTY ASYLUM, BURNTWOOD, NEAR LICHFIELD.—Assistant Medical Officer. Must be duly qualified. Testimonials to be sent to Dr. Davis, Medical Superintendent, Burntwood Asylum, Lichfield.

EVELINA HOSPITAL FOR SICK CHILDREN, SOUTHWARK-BRIDGE-ROAD, S.E.—Physician to out-patients. Applications on or before Wednesday, the 13th inst., to the Committee of Management.

LOCHMABEN, DUMFRIESSHIRE.—Medical Officer wanted for this Parish. Good scope for private practice. Applications to the Inspector of the Poor, on or before March 22.

RIPON DISPENSARY AND HOUSE OF RECOVERY.—House-Surgeon and Dispenser. Testimonials to the Hon. Sec., on or before March 25.

ROYAL FREE HOSPITAL, GRAY'S-INN-ROAD.—Junior Resident Medical Officer. Candidates must possess a Medical or Surgical qualification. Testimonials to James S. Blyth, Sec., on or before Wednesday, the 20th inst.

ROYAL SURREY COUNTY HOSPITAL.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before Saturday, April 16.

SALFORD AND PENDLETON ROYAL HOSPITAL.—District Surgeon. Must be duly qualified. Applications to, and further particulars of, Mr. George H. Larmuth, Secretary, on or before March 11.

STOCKTON-ON-TEES DISPENSARY.—Registered Practitioner, to visit and dispense. Testimonials, etc., to Mr. E. E. Claphain, on or before March 9. The duties will commence early in April.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bury Union.—Mr. William Nuttall has resigned the Heap District; area 8896; population 22,537; salary £60 per annum.

Glanford Brigg Union.—Dr. R. B. Low has resigned the Messingham District; area 12,508; population 2976; salary £38 per annum.

Portsea Island Union.—The Workhouse is vacant; salary £315 per annum.

St. Thomas's Union.—Mr. W. H. Land has resigned the Littleham District; area 2068; population 3904; salary £42 14s. per annum.

Toxteth-park Township.—Mr. Albert E. Carter has resigned the First District; salary £250 per annum.

Walsingham Union.—The Rainham District is vacant; area 14,225; population 2549; salary £38 per annum.

APPOINTMENTS.

Chelsea Parish.—William A. Bonney, M.R.C.S.E., L.S.A., to the North-West District.

Croydon Union.—Major C. Dukes, M.D., L.R.C.P., M.R.C.S., L.S.A., to the Third District.

MR. RITON OLDHAM, F.R.C.S., West Hartlepool, took the usual oaths, and qualified as a magistrate for the county of Durham on the 2nd inst.

SIR HENRY HOLLAND, BART., has accepted a Vice-Presidentship of the Society for the Encouragement of the Fine Arts.

MR. WILLIAM DUMAN has been appointed by the Paddington Guardians Vaccination Inspector for the parish.

AT an adjourned meeting, last week, of the Society for Organising Charitable Relief and Repressing Mendicity, it was, amongst other things, resolved that indiscriminate Medical relief should be replaced by the establishment of provident Medical associations.

BARNES, the American pseudo-doctor, who was charged at the Old Bailey, at the instance of the Treasury, with circulating indecent Medical books by means of the post, was discharged on his promising not to offend again, and on entering into recognisances to come up for judgment if called upon.

WE understand that Dr. A. F. Anderson, Assistant Colonial Surgeon at Singapore, has, during leave of absence in this country, arranged for the publication of his very graphic photographic representations of true leprosy as seen in the Straits Settlements. The Secretary of State for the Colonies has shown his appreciation of these illustrations of leprosy by ordering the Crown agents to send out several copies for the use of resident officials.

THE Medical Officer of Health for Lambeth, in his monthly report, states that he has examined the water drawn from the main at Kennington-cross, and that supplied by the Southwark and Vauxhall Companies, and he came to the conclusion that both waters are totally unfit for human consumption.

THE Governors of the Worcester General Infirmary, at their annual meeting on the 3rd inst., passed the following resolution on the resignation of Dr. Williams:—"That the resignation of Dr. Williams be accepted, and that the thanks of the Governors of the Worcester General Infirmary be given to him for the efficient manner in which he has performed his duties as one of the Physicians to the institution during the past sixteen years."

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. J. M. Drake, Montreal.—Your letter has come safely to hand. Please accept our best thanks for the enclosure.

Mr. J. Beswick-Perrin.—Your paper has been received, and shall have early insertion.

Mr. M. C. Macnamara, Calcutta.—Letter, with enclosure, received with thanks.

Spero Meliora.—The omission was quite accidental. By all means send something more.

Dr. Gibbon, the well-known Medical Officer of Health for the Holborn Union, and Dr. Holt Dunn are Medical candidates for the Coronership of the City of London.

A. B.—Order a little work on St. Moritz by the late Dr. Whitfield Hewlett, published by Churchills; or a similar work by Dr. Yeo. For Tarasp, consult Dr. Yeo's book, or write to Dr. Killias, at Coire.

Mr. Balding, Royston.—We know of no precedent for the fee being paid by the representatives of the insured person. We are not aware of such a practice being pursued by any other office. Whether it can be enforced must depend upon the terms of the original contract.

E. C.—It does not appear to us that Dr. Letheby favoured adulteration in any way, but that he takes things as they are, and aims at preventing and punishing those offences only which are clearly detectable, and which are not only frauds, but poisonous frauds.

The Manna of the Israelites.—That useful and interesting paper, *Hardwicke's Science Gossip*, contains an account of a nutritious lichen, in masses of the size and appearance of gum ammoniacum, which is found in dry sandy districts of Africa, Arabia, and Central Asia.

Sanitary Lectures at Brighton.—Such teaching of the laws of life and health as was given in Mr. W. E. C. Nourse's lectures at the Pavilion cannot fail to do their work in even a less enlightened community than that of Brighton. We hope the lecture on "Bad Air and Disinfectants" will be repeated and published for circulation amongst the unwashed and careless part of the people.

Autopsy of a Centenarian.—We have received a letter from Mr. W. J. Thoms respecting an article which appeared in this journal on November 25 last with the above heading. He asserts that the name of the alleged centenarian was Thomas Geeran, and that he had long traded on the credulity of the people of Brighton on the score of his great age and long and unrewarded service in the 71st Foot. Mr. Thoms has forwarded to us an article from *Notes and Queries*, which goes far to prove that Geeran was an impostor as to his age, that he was guilty of many falsehoods, and that his real age at the time of his death was 82.

Inquirer.—It was a mistake on the part of our contemporary, who has confounded one person with another. The "celebrated" Obstetric Physician of the name is still living, in tolerably good health, and at an advanced age. The deceased gentleman was, we believe, no relative whatever to his namesake, who was Lecturer on Midwifery at Guy's, and Obstetric Physician to that Hospital.

COMMUNICATIONS have been received from—

Mr. Balding; Mr. Metcalfe Johnson; Dr. Le Rossignol; Mr. Charles Edar; Mr. Hannay; Dr. E. H. Dickinson; Mr. W. J. Thoms; Dr. G. Johnson; Dr. Cousins; Dr. Diplock; Dr. Holt Dunn; Mr. F. W. Lowndes; Mr. R. Oldham; Mr. St. J. H. Young; Mr. Blaney; Dr. Edwards-Crisp; Dr. Rogers; Dr. Letheby; Mr. Edwin Saunders; Dr. Bantock; Mr. Addy; Omnia sine Labore; Dr. Latham; Mr. Lethbridge; Mr. Coppin; Mr. Bradford; Mr. J. Chatto; Mr. H. Morris; Sir Dominic Corrigan; Students; Mr. Curgenven.

BOOKS RECEIVED—

"Contagious Diseases Act." By the "Dean of Carlisle"—Drysdale on Syphilis—Epidemic Cholera in the Bengal Presidency, by Dr. James L. Bryden—Sanitary Report of the Board of Works, Whitechapel District—Lawson on Sciatica, Lumbago, and Brachialgia—Trench's Report on the Health of Liverpool—Gutch's Literary and Scientific Register and Almanac for 1872—Legg on Urine, third edition—Perciru's Elements of Materia Medica.

PERIODICALS AND NEWSPAPERS RECEIVED—

Birmingham Daily Post—New York Medical Journal—Hardwicke's Science Gossip—American Journal of Psychological Science—Eastern Morning News—British Press and Jersey Times—Food, Water, and Air—Monthly Microscopical Journal—Pharmaceutical Journal—Edinburgh Medical, March—Monthly Homœopathic Review, March—The "Clinic" Philadelphia Bulletin, February 13—Co-operative News, No. 9—Practitioner—Report of the Medical Council—Cambridge University Reporter.

APPOINTMENTS FOR THE WEEK.

March 9. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Moncure D. Conway, "On Demonology."

11. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

12. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. T. Holmes, "On the Surgical Treatment of Suppurating Ovarian Cysts, and on Pelvic Adhesions in Ovariotomy." Mr. Wm. MacCormac, "Case of Resection of the Shoulder- and Elbow-joints in the same Arm for Gunshot Injuries."

13. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Epidemiological Society, 8 p.m. Mr. J. N. Radcliffe, "On the Recent Diffusion of Cholera in Europe."

Royal College of Physicians, 5 p.m. Croonian Lectures—Dr. Bristowe, "On Disease and its Remedial Treatment."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

Society of Arts, 8 p.m. Meeting.

14. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

15. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal College of Physicians, 5 p.m. Lumleian Lectures—Dr. Quain, "On Diseases of the Muscular Walls of the Heart."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

Royal Institution, 9 p.m. Mr. J. Evans, "The Alphabet and its Origin."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 2, 1872.

BIRTHS.

Births of Boys, 1053; Girls, 1001; Total, 2054.
Average of 10 corresponding weeks, 1862-71, 2212·8.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	746	677	1423
Average of the ten years 1862-71	755·5	731·2	1486·7
Average corrected to increased population	...	...	1635
Deaths of people aged 90 and upwards	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	...	8	1	...	12	1	2	2	4
North ...	751668	19	12	3	2	19	1	3	2	1
Central ...	333887	4	4	1	...	13	...	...	...	2
East	638928	15	15	8	..	25	...	3	2	1
South	966132	14	2	8	3	26	1	4	...	2
Total	3251804	52	41	21	5	95	3	12	6	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·695 in.
Mean temperature	45·6°
Highest point of thermometer	58·4°
Lowest point of thermometer	32·4°
Mean dew-point temperature	41·4°
General direction of wind	S.W.
Whole amount of rain in the week	0·17 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 2, 1872, in the following Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending March 2.	Deaths Registered during the week ending March 2.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2054	1423	58·4	32·4	45·6	7·55	0·17	0·43
Portsmouth ...	115455	12·4	68	43	55·4	34·4	45·8	7·66	0·39	0·99
Norwich	84105	10·9	49	46	55·5	30·0	42·9	6·06	0·41	1·04
Bristol	186428	39·8	132	91	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	63	49	54·0	35·3	44·3	6·84	0·21	0·53
Birmingham ...	350164	44·7	249	152	55·0	36·2	44·8	7·11	0·48	1·22
Leicester	99143	31·0	77	41	56·0	35·0	44·6	7·00	0·27	0·69
Nottingham ...	88225	44·2	81	43	59·0	32·8	44·8	7·11	0·64	1·63
Liverpool	499897	97·9	361	264	53·7	35·0	44·4	6·89	0·63	1·60
Manchester ...	352759	78·6	240	195	55·2	37·0	44·9	7·17	1·32	3·35
Salford	127923	24·7	83	68	54·2	36·1	44·7	7·06	1·16	2·95
Oldham	84004	20·2	79	66	...	...	...	...	...	...
Bradford	151720	23·0	105	88	55·5	36·6	45·7	7·61	1·25	3·17
Leeds	266564	12·4	187	159	55·0	37·0	45·0	7·22	1·24	3·15
Sheffield	247847	10·9	153	117	56·0	31·0	44·9	6·67	0·68	1·73
Hull	124976	35·1	74	55	...	...	...	...	...	...
Sunderland ...	100665	30·4	84	73	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	112	57	52·0	36·0	42·6	5·89	1·13	2·87
Edinburgh	205146	46·3	116	140	52·0	31·0	40·0	4·44	0·31	0·76
Glasgow	489136	94·8	405	298	50·4	29·0	42·2	5·67	0·38	0·97
Dublin	310565	31·9	181	183	58·0	32·0	46·8	8·22	0·53	1·35
Total of 21 Towns in United Kingd'm	7394345	34·0	4953	3649	59·0	29·0	44·3	6·84	0·66	1·68

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·70 in. The highest was 30·04 in. on both Tuesday and Saturday evenings, and the lowest 29·33 in. on Sunday morning, 25th ult.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

THE SELF-ILLUMINATING OPHTHALMOSCOPE.

Arranged by Professor LIONEL BEALE, F.R.S. (King's College). May be used to examine a patient in any position, in daylight, generally without atropine. Is held in the hand. No dexterity required in its management. Is adapted to form an Otoscope, Endoscope, Laryngoscope, &c. Descriptive Circular forwarded. *Vide* "British Medical Journal," April 2nd, 1870. Price, in case, 42s. Sole Maker, HAWKSLEY, Surgical Instrument Maker, Blenheim-street, Bond-street, London, W.

HAWKSLEY'S PATENT CLINICAL THERMOMETER.

HER MAJESTY'S LETTERS PATENT have been granted for this Thermometer, the index of which cannot be shaken into the bulb, or the black divisions rubbed out. Prices of the 6-inch patent instrument, in safety case, upon which are three engraved scales, 12s. 6d.; 5-inch ditto, in ivory case, 13s. 6d.; 3-inch ditto, in silver case, for waistcoat pocket (Prof. Beale's), 16s. Post free.

Hawksley's Improved Clinical Thermometer.

Section showing actual size, range 90 to 110.

Vide "Lancet" Report, July 3rd, 1869; Brit. Med. Association Reports, 1869.

At the last meeting of the British Medical Association, in a paper read by Dr. Coroelius Fox, on "Clinical Thermometers," it was announced that this instrument was far superior to that of any other maker. Prices of the Improved Clinical Thermometers, with indelible divisions, in similar cases to the patent instrument, 6-inch, 10s. 6d.; 5-inch, 12s. 6d.; 3-inch (Prof. Beale's), 15s. Post free. Temperature charts bound for the pocket. Descriptive Circulars forwarded. Inventor, Patentee, and Sole Maker, HAWKSLEY, Surgical Instrument Maker, Blenheim-street, Bond-street, London, W.

PRIZE MEDAL, 1862. **JOSEPH F. PRATT,** PRIZE MEDAL, 1865.

SURGICAL INSTRUMENT MAKER, ORTHOPÆDIC MECHANICIAN TO ST. BARTHOLOMEW'S HOSPITAL,
420, OXFORD-STREET, W.

SOLE AGENT FOR DR. E. STÖHRER'S GALVANIC APPARATUS.
ELASTIC STOCKINGS, LADIES' ABDOMINAL BELTS, IMPROVED WATER-PAD TRUSSES FOR SCROTAL AND UMBILICAL HERNIA.

GUY'S AND ST. THOMAS'S HOSPITALS.
CAUTION.

J. MILLIKIN, Surgical Instrument Maker to the above Institutions, begs to announce that he has NO CONNEXION whatever with Nos. 7, Southwark-street, and 12, Palace-road, and that all communications intended for him must, in order to insure prompt attention, be addressed to

3, ST. THOMAS'S-STREET, BOROUGH,

where he is now conducting his business of Manufacturer of every description of Surgical Instrument and Appliance, Artificial Legs, Arms, and Hands, Trusses, Bandages for Prolapsus Ani, Uteri, Pendulous Abdomen, Moulded Leather Splints, Spinal and Orthopædic Apparatus, &c., Dissecting, Pocket, Amputating, and Minor Operating Cases.

MILLIKIN & WALTERS

(Late J. MILLIKIN),

7, SOUTHWARK-STREET, BOROUGH,
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ORIGINAL LECTURES.

CLINICAL LECTURES ON INTESTINAL OBSTRUCTION.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

GENTLEMEN,—I purpose commencing this course of clinical lectures by bringing before you for your consideration some cases of intestinal obstruction, and to them I shall append such remarks as may suggest themselves for your instruction. This is a class of cases of considerable interest and immense importance to Surgeons, but one which I am disposed to think is insufficiently attended to by many of us.

It is not my intention, nor my province, to place before you the subject of constipation from the point of view of the Physician—nor, indeed, are we as Surgeons often consulted for this defect until the constipation has passed into the condition of obstruction. I must, however, remind you that constipation is a state due to a variety of circumstances. It may arise from a want of due relation between the ingesta and the intestines; or the intestines themselves, from deficiency of nerve or muscular power, may give rise to constipation of a chronic character. In old people you will not infrequently find this, and I am of opinion that many persons advanced in years commence to die by the bowel. The intestine is the first part to lose its power, and the gradual failure of vitality takes its start from this centre. I will give you the details of a case of this sort, as you are more likely to be impressed by recorded facts than by abstract remarks.

On December 15, 1870, I was called by the late Mr. Wright, of Clapton-square, to see a Mr. E., aged 74, of Dalston, who had been vomiting for three days. He had been the subject of a reducible right scrotal hernia for many years, and had worn a truss. He had never had any trouble with his hernia. Three days before I saw him, his hernia came down in the morning when he got out of bed. He pushed it up without trouble, and then felt sick. He got into bed again. The sickness continued, and was accompanied with abdominal pain, although this was not seated in one spot. These symptoms lasted for three days, gradually becoming more severe. His bowels never acted during this period, although before he said they had been quite regular.

He sent for Mr. Wright on the morning of the third day, who at once sent for me. When I saw this patient, he was in bed and somewhat feeble. He was vomiting yellow, highly offensive matter, and was in great pain. No hernia was down, and nothing was to be felt by any external examination. I tried to get the hernia down, but failed, much to the patient's surprise, for he said it always came down directly he stood up. On the present occasion, however, this measure failed. It so happened, also, that from rising vomiting was excited; and yet no fulness, even at the internal ring, appeared.

Under these circumstances, an exploratory operation was suggested and performed. Nothing was, however, to be found in the sac, nor at the ring, except a distended cæcum, which was felt directly the finger was introduced into the internal ring. No band or other abnormal condition was felt. The wound was consequently closed, and opium given. The symptoms persisted, and sixteen hours after the operation the patient died.

At the post-mortem no hernia or intestinal complication was found beyond an enormously distended cæcum and transverse colon, this part of the bowel being completely filled with fæces.

This patient clearly died from a simple blockade of the large intestine. The hernia had nothing to do with the symptoms. The caput cæci had probably mechanically prevented the re-descent of the hernia after its reduction. I could give you another case in which no hernia was present to complicate the diagnosis, and the same symptoms existed; a third, also, in which retention of urine was the prominent symptom—but in all chronic intestinal obstruction from atony of the bowel was the cause of the symptoms and the immediate cause of death.

Another case suggests itself to me, in which the obstruction of the bowel gave rise to symptoms simulating stricture of the bowel. It was that of the mother of a Medical man, who had been bedridden for two years, and was supposed to have malignant stricture of the rectum. She had passed no normal motions for a long time, but small pieces of fæces, with blood and mucoid fluid, were frequently voided. On rectal examination, I found the bowel completely blocked by hardened fæces, large quantities of which were scooped out. The lady lived five years after this date, and died eventually of old age.

It is not, however, only in the aged, but also in young adult persons, that this condition of blockade of the intestine is met with. There is a woman now in Dorcas Ward, 31 years of age, who was sent to me for the purpose of having an artificial anna in the right loin closed. Colotomy had been performed by an excellent Practitioner in the country, for obstinate constipation, associated with pain and fæcal vomiting of two months' duration. The operation was, in my opinion, justified by the long-continued and consecutive vomiting of fæcal matter. Previous to the operation the rectum and left loin were examined, and, as no obstruction was found in them, it was deemed right to open the colon in the right loin. This was done; and that the bowel was opened, the Surgeon at the time was quite convinced, as he saw the cæcum and vermiform appendix during the operation. No fæces, however, passed at the time, the bowel being quite empty; but three days afterwards fæcal matter commenced to flow through the wound, and continued to do so till the time of her admission. This fact shows that there could have been no organic obstruction above the cæcum. It is possible that there might have existed some twist of the intestines, which unfolded itself after the artificial opening was made. But the cause more probably was the impaction of fæces from powerlessness of the bowel to propel its contents.

These cases exemplify one class of the many kinds of intestinal obstruction. In them the existence of the obstruction is not due to bands without, or tumours within, the gut; but the condition is functional, and the cause resides in the want of power of the intestinal structure itself.

There are other ways, however, in which the intestines may be obstructed—causes external or internal to the wall of the intestines. Of the external, tumours, as of the ovary or uterus, may give rise to obstruction; but such cases are rare. The most remarkable case of this sort which has occurred to me was one in which a hydatid of large size extended upwards from the perineum into the pelvis and abdomen, so as to produce complete retention of urine and constipation. I recorded it in vol. xvii. of the Pathological Society's *Transactions*; but the following brief notes will suffice to put you in possession of the most salient points:—

It occurred in the practice of Mr. De'ath, Buckingham, in a farmer, aged 50. There was a history of the hydatid's growth for about fourteen years. I was asked to see him, on account of retention of urine of five days' standing; but the patient thought more of his constipation than retention. Relief by catheterism was impossible, the bladder having been pressed out of the pelvis to one side; and failure followed the attempt to puncture the bladder per rectum. Relief was only given when a free incision was made into the perineum, and three quarts of hydatid cysts evacuated. Much relief followed this operation; but the man died on the ninth day, the constipation of the bowels being insuperable. He had diseased kidneys, such as occurs where there has long existed any impediment to the free flow of urine along the urinary tract. This, however, was not considerable. He died really from the constipation.

Cancerous tumours are also amongst those which give rise to mechanical obstruction, and the following are the details of a case of the kind in which I was able to give relief for a time by colotomy, although death soon resulted from rupture of the tumour itself:—

On April 5, 1870, I was asked by Mr. Richard Phillips, of Leinster-square, Kensington, to see Mrs. M., of his neighbourhood, with him and Dr. West. She was a married woman, with several children, and 46 years of age. She had been ailing for some months at intervals, with irregular bowels, constipation, and diarrhœa, for which she had been under the care of Dr. Owen Rees, Dr. West, and Dr. Hetley, of Sydenham. For ten days before I saw her she had been the subject of constipation associated with vomiting, abdominal distension, and severe pain, it being quite evident that mechanical obstruction to the bowel existed. On making a pelvic examination some tumour was felt, which, after close examination, was clearly not uterine. On examining the rectum high up with the finger, a small tumour the size of a walnut was detected in its anterior wall, and higher up another mass, which seemed movable; but this was beyond the reach of the finger. Whatever the nature of the disease might be, it was evident that the lady was dying from intestinal obstruction, and, with the view of giving relief, if not of saving life, colotomy was suggested. Dr. West and Mr. Phillips, who met me in consultation, coincided in these

views. The patient accepted them, and at 2.30 p.m. on April 5 the operation was performed; Mr. R. Phillips, with his son and Dr. Hetley, kindly assisting. I operated on the left loin and made the oblique incision, and found the kidney so low down as to occupy the lumbar space. On pushing this up the bowel was found and opened, flatus and fæces at once passing. The bowel was carefully stitched to the margin of the wound.

Great relief followed this operation, and the patient passed a good night; she took food also kindly. The second day was also passed without one bad symptom. At noon, however, on the third, when the nurse was changing the draw-sheet, the patient suddenly collapsed and died. This happened after the patient had raised herself in the bed.

On making a post-mortem that evening, Messrs. Phillips and I found that a globular mass of medullary cancer, six inches by five, was hanging from the mesentery, covering the sacrum, into the pelvis; a smaller tumour, the size of a walnut, existing in the rectum—this being the tumour which was felt during life. The larger mass had ruptured its capsule, and its contents had escaped. This rupture of the tumour had clearly been the cause of the fatal collapse. The parts about the seat of operation were healthy and secure.

Here there was a case in which the constipation had been going on for months, till the obstruction at last became quite complete. The symptoms were chronic from the first. They were those of simple obstruction, and very unlike those now to be described, which are due to the existence of some intestinal band or other sudden constricting influence.

The two preceding cases illustrate the possibility of tumours causing the obstruction; but I have alluded to the occasional existence of bands of adhesions producing a similar result. These bands may be the remains of some fœtal structure, or may have their origin in pathological changes which take place within the abdomen. These changes I will not now dwell upon, but will give you an example of the danger they excite by referring to a typical case of the sort, in which, however, unlike the other cases I have alluded to, the whole course of the disease was acute.

On February 12, 1871, I was summoned by Mr. R. Mathews, of Bickley, to see a Miss T., aged 26, who was suffering from some acute abdominal symptoms. I found this young lady rolling in bed in acute agony, with the legs flexed, in a severe paroxysm of a dragging abdominal pain, which she referred to the left side of the umbilicus; she was vomiting yellow matter. It appeared that three days before, when in excellent health, she went out for a drive, and from necessity was called upon to retain her urine for some hours. On her return home she micturated, and on emptying the bladder turned faint and vomited; some abdominal pain at once appearing. This pain recurred in paroxysms up to the time I saw her, associated with vomiting. Each paroxysm was accompanied with a strong desire to pass water, but inability to do it; a little passed at each time, but the inclination to do so lasted after the effort.

The abdomen was distended and tympanitic, and large coils of intestine could be made out through the parietes. No urine existed in the bladder. The pulse was feeble, and she was evidently sinking if not relieved. The symptoms clearly indicated intestinal obstruction from some cause outside the bowel, and nothing but an exploratory operation seemed to offer any prospect of success. This I suggested, and with permission performed; Mr. Mathews and Mr. Humphreys kindly assisting.

I made an incision in the middle line and opened the belly, a large coil of distended bowel at once protruding; on turning this to one side some empty bowel was found, and on following this up the intestine was found at the right side of the brim of the pelvis to be firmly bound down by an omental band passing from the right lumbar region over the brim of the pelvis to be connected with the bladder; several feet of small intestines were bound down by this band, and on its division the bowel at once escaped. The wound was then adjusted, and the patient left, but she never rallied, and died within two hours of the operation.

In this case the explanation of the symptoms is tolerably clear, starting with the fact that a band existed stretching from the right side of the abdomen to the bladder; for it would seem as if, when the bladder was over-distended on the day of the drive, the adhesion or band was raised well out of the pelvis, and during this time some coils of intestine passed beneath it. When the bladder contracted after micturition, the band fell, and in falling clipped this intestinal coil, and pressed it against the brim of the pelvis, in this way causing the obstruction; the futile efforts of the bowel to disengage itself dragging upon the band, and through it upon the bladder, giving rise to the bladder symptoms, which were so distressing.

Had the operation been performed earlier the prospects of recovery would have been good.

I could not give you a better example of the whole course of acute intestinal obstruction than this case affords. It was, it is true, associated with bladder symptoms as well as intestinal, but this was merely accidental, and owing to the adhesion of one end of the band to the bladder itself.

Another case I should like to allude to is quite as clearly one of intestinal obstruction as the last. It bears, too, a resemblance to this last, with the exceptions that no symptom connected with the bladder was present, and that it was complicated by the presence of a hernial tumour.

On November 12, 1871, Mr. Mallam, of the Camden-road, asked me to see a Mr. H., aged 68, who had all the symptoms of strangulated bowel.

He had been the subject of a reducible inguinal hernia on the right side for years, and had worn a truss. He had always had good health, although he had a sallow aspect from long tropical residence. Three days before I saw him he had been suddenly seized with vomiting, abdominal pain, and constipation. The vomiting had been fæcal for a day. The hernia was up, and had not been down for some time.

When I saw him he was very low, with a distended and tympanitic abdomen; it was tender all over, but in the right iliac fossa it was perhaps most so. There was no paleness or tenderness about the seat of the hernia. The symptoms were clearly those of intestinal obstruction, and as a hernia existed the necessity of exploring it appeared urgent.

This I accordingly did at once, with the patient under chloroform. I laid open the hernial sac, but found it empty. It was of the congenital form, the testicle lying at the bottom. The neck of the sac appeared also free from all obstruction. I then passed my finger into the abdomen, sweeping its end over the iliac fossa inwards towards the brim of the pelvis, where it passed over what appeared to be a ring with a crescentic border, through which bowel passed. With a guarded herniotome I increased the opening of this ring, and with my finger I worked out much of the bowel, and having thereby freed the parts somewhat, I moved my left index-finger upwards above a coil of distended and strangulated bowel, and found that one side of what appeared to be a ring was made up of a band. This was therefore divided with the same instrument, and relief was at once given to the intestine. The band gave with a snap, and the liberated intestines at once became free. After the operation all the symptoms were relieved, and the old man expressed himself as feeling very comfortable. Twelve hours after, however, he fainted and died.

At the post-mortem it was found that a band had been divided which passed from the convex portion of the centre of the ileum to the right side of the brim of the pelvis, and that about two feet of intestine had been strangulated by it, the lines of stricture in both the upper and lower ends being very marked. It seemed, also, as if the vermiform appendix had been likewise adherent. Evidence of early peritonitis existed. The viscera were healthy.

Two cases not unlike this I have described in a paper read before the Medical and Chirurgical Society in 1867, and published in the fiftieth volume of the *Transactions* of the Society. The subject of one of them is now alive. The existence of hernia in this case modified the operation somewhat, for had the patient not been ruptured I should have opened the abdomen along the median line. Still, in any case, my course would have been clear, and the existence of the hernia was not necessary to lead to the step which was taken. I am disposed to believe, then, that in many cases of intestinal obstruction, where the symptoms are marked, the pain fixed and paroxysmal, relief may be afforded by operative means.

I will now pass on to consider the changes *within* the bowel which may give rise to obstruction, and will relate to you a case illustrative of the action of this cause, though what the nature of the growth which is jeopardising the life of this patient may be I will not undertake to say. She is too young for the existence of cancer to be very probable. She now goes about well and comfortably, and it was but yesterday I saw one of her friends, who spoke favourably of her, but told me that she had quite lately been suffering from a discharge of "blood and corruption" from the rectum. This may be regarded as pointing towards the gradual destruction of the growth, whatever it may be, and its discharge by the anus. The case is as follows:—

On September 1, 1871, I was asked to meet Mr. Turner, of

Bermondsey-square, at the house of Mr. B., of Long-lane, to see Miss B., aged 18, who had been the subject of insuperable constipation for seven weeks. She was a healthy girl, and had not suffered much from constipation. The present attack commenced with abdominal pain, gradual distension, and vomiting, with complete constipation. Whatever she took in the way of medicine or food was rejected, and for some weeks the vomit was of a yellow colour. Enemata had been given freely and with care, but they returned unstained as they were injected.

When I saw her the abdomen was much distended and tympanitic; it was painful, but not tender. Coils of distended intestine could be seen through the parietes. The girl's powers were feeble. A rectal examination did not reveal anything. Nothing abdominal could be felt.

The symptoms being those of a chronic blockade of the bowel, and the pain not having anything of a paroxysmal character such as generally exists with some *external* mechanical cause of obstruction, I was loth to interfere Surgically until some powerful Medical means were employed. I therefore advised the use of some rue and turpentine enemata, and the internal administration of podophyllin; but this treatment not only did no good, but harm—it caused intense pain and much depression. Under these circumstances it became clear that Surgical means must be employed, and the operation of colotomy seemed the only justifiable one, constipation having been complete for seven weeks.

On September 6 the operation was performed, Mr. Rendle giving chloroform, and Mr. Turner, with his son and Mr. Douglas Duke, assisting.

I made the oblique incision in the left loin, and came down upon the bowel. I opened it, and stitched it to the wound by means of the quill suture. Fæces very soon made their escape, and great relief followed, the abdominal distension rapidly disappearing.

On the second day she took food well. On the fourth I removed the sutures, good union having taken place, and from that time everything went on well: she was free from pain, she took her food naturally, and slept well; the bowels acting regularly through the artificial anus.

On October 12 (five weeks after the operation) I made a careful examination of the pelvis, the girl for some ten days before having experienced some forcing action in the rectum. I found some foreign matter in the rectum, which had evidently been resting there for some time, and high up what appeared to be a fibrous polypus or growth filling the bowel. It felt just like a fibrous polypus coming down through the os uteri.

January 30, 1872.—At the present time the girl is going about in good health. She has still some straining in the pelvis, and the tumour formed in it is being forced downwards. Time will prove its true nature.

The case I have just referred to brings us on almost involuntarily to the consideration of intussusception; for it is undeniably true that a villous growth, or a polypus within the bowel, may give rise to intussusception of that portion of the intestine about and above which it springs. Nature, in her efforts to expel the foreign body, forces it down, and with it the bowel descends too, until it becomes invaginated into the portion of the gut below. Such a case I have witnessed in the rectum; and as the polypus could be felt low down at the time of the examination, I seized the opportunity to snip it off at once, and the preparation you may now see in our museum; and in the museum of St. George's Hospital there is also a specimen, figured in Holmes's "System of Surgery," of large intestine, a portion of which is intussuscepted, and has a fibroid polypus attached to it.

Intussusception is not, however, always caused in this way, although it is invariably provoked by some source of local irritation, such as scybala or some such-like cause. In some cases, Nature, in her efforts to get rid of the offending substance, excites a cure by promoting the sloughing of the invaginated bowel itself. But the successes of Nature in this way are rare, and more often death is the inevitable sequence. What can or ought the Surgeon do in these cases? Well, gentlemen, I confess the prospects of Surgical interference are not hopeful. With the exception of a case of Mr Hutchinson's, the results of operations have been uniformly unsuccessful. By purely Medical treatment little or no good is to be achieved. The Physician can allay pain by opium, and leave the case in Nature's hands. He can do little more.

If the large intestine be the situation of the abnormality, then good may result from distending the bowel by water or air—by enemata or bellows. But when the small intestine is the seat, or when, as often is the case, the small bowel passes through the ileo-colic valve into the large bowel, all treatment is unsatisfactory and, to a great extent, haphazard. In the last extreme it is justifiable to open the abdomen, as Mr. Hutchinson did in a child in whom obstruction existed for two days. He had the satisfaction of withdrawing the invaginated bowel; and his treatment was followed, if my memory hold good, by a successful issue.

LECTURES ON
EXCISION OF THE HIP-JOINT.

By HENRY HANCOCK, F.R.C.S.E.,
Senior Surgeon to Charing-cross Hospital.

(*Continued from page* 215.)

I HAVE thus laid before you the laws which governed the performance of this operation down to the year 1857. I have done so not merely as a matter of interest connected with the progress of a novel proceeding; but, as many of the objections are urged against it even in the present day, it may not be without its use to consider them in detail, and to inquire how far they are or are not valid. They may be briefly summed up as follows:—

If the acetabulum is carious, the patient, whether operated upon or not, must die.

When caries attacks the surfaces of a joint, it is never limited to one of the bones which compose it; therefore, as the acetabulum does not admit of removal, the operation is useless, as it does not get rid of the whole of the disease.

That the operation is bloody and formidable.

That, to be successful, the head of the bone must have been previously dislocated.

That at the time of operation there must be no, or at all events very little, disease of the acetabulum.

That there should be no communication between the outer abscess and the pelvis.

That the disease must be in its last stage.

Whilst, lastly, it is objected that the disease may possibly be mistaken for one of the sacro-iliac synchondrosis or of the pelvis itself; and that, moreover, the operation is useless, as death in hip disease does not occur from local mischief, but from the exhaustion resulting from the constitutional malady.

Now, in the first place, Is the acetabulum always implicated or not? It may be in a very large majority of cases; it certainly is not so in all. Of eighty-one cases in which the fact is specially alluded to, I find that in eighteen, or rather more than one-fifth, the acetabulum is expressly stated to have been healthy.

Although these exceptions are too numerous to prove a general rule, they are by no means sufficient to divest disease of the hip-joint of its gravity and fatal character. If it be true that he who suffers from caries of the acetabulum *must die*, caries of the hip-joint must take its place amongst the most destructive and malignant diseases, even rivalling in its fatal character cholera, typhus fever, small-pox, etc., since for four-fifths of their number there is no hope, they must inevitably die. But is this actually the case? Is caries of the acetabulum of so peculiar a character that it is not amenable to the same laws as govern that disease elsewhere? Is the cotyloid cavity so entirely without the pale of vitality and so wanting in reparative power that when once attacked with caries it cannot be cured, and the patient must inevitably die?

This seems to me to be an extremely difficult position either to maintain or to prove.

There are many who assert that these cases, if left to nature, rest, and proper nourishment, will do well of themselves. There are many of these cases which recover without operative interference, and of which post-mortem examinations are never obtained. There are patients, again, who pass through the successive stages of the disease—inflammation, ulceration, suppuration, spontaneous luxation, flattening and absorption of the head and neck of the femur—and yet who preserve their lives at the expense of the joint. True it is that in these cases the acetabulum as an acetabulum is not cured—it is obliterated; it undergoes the double process of disintegration and filling up; it becomes, in fact, in process of time, a thing of the past. But the patient does not die; for whilst his life has been endangered by the progressive destruction of the joint, it has now been saved by completion of that destruction and the subsequent reparation and reproduction of bone and soft parts.

As illustrative of this fact take the case operated upon by Mr. Anthony White, in which there was not a vestige of the

acetabulum remaining; take also the following case, operated upon by Sir William Fergusson in 1849:—E. N., aged 10 years, two years and a half before had been knocked down by another girl, struck her left hip, and was at once lamed by the accident. In process of time abscesses burst around the joint, and she suffered much from pain and swelling extending from the knee along the back of the thigh. Twelve months after the disease began, the parents one morning observed that her thigh was altogether flexed across the abdomen, and that she was unable to move it from this position. Fresh abscesses occurred, and the suppuration with the constant pain destroyed her health, and she became weak and emaciated to the last degree. After remaining at a water establishment for six months she was taken to King's College Hospital. The left buttock was unnaturally prominent, smooth, and tense, and over the back of the ilium was a hard globular swelling, evidently the head of the femur dislocated upwards. Around this were various sinuses burrowing in all directions, and communicating with the carious head of the femur. Some of these sores were situated in the groin, some over the sacrum. A very large continuous one extended down the thigh, and they all discharged much unhealthy pus. The slightest movement or pressure caused her great pain. She lay on the sound side of her body, with the knee of her diseased limb thrown over the opposite thigh.

On January 11 Sir William Fergusson enlarged one of the sinuses, and removed a portion of dead bone which was loose. The head of the bone was found in a carious condition, and he consequently removed it on January 13. The head of the bone was much reduced in size, and carious. There was hardly any trace of the cotyloid cavity, it being filled up with new bone.

Do not these and analogous cases also offer a very cogent reply to the objection that the operation must have originated and been conducted in forgetfulness of the well-known pathological fact that when caries attacks the surface of a joint it is never limited to one of the bones which compose the articulation, and that as the acetabulum cannot be removed with any prospect of advantage in the living body, therefore excision of the head of the thigh-bone for caries of the joint should be regarded as no less erroneous in theory than objectionable in practice?

It seems to me that, so far from this being the fact—so far from regarding it as either one or the other—by performing excision of the head of the thigh-bone in caries of the joint we emulate the proceedings of nature, and assist those whose powers of constitution are too weak, and who are consequently unable to carry those proceedings to completion.

Mr. Rankin, of Carluke, has an illustrative specimen in his possession. "The head of the femur in this case was discharged spontaneously, and bears the brand of what has long been called caries; yet after many years the person is alive and healthy, with a free joint over the pelvis, though the knee is flexed and anchylosed." According to Mr. Burford Norman, the late Mr. Liston possessed the head of a femur which had been detached and spontaneously expelled; and on the table before you is a similar preparation spontaneously expelled from a patient of Mr. Gant, to whose kindness I am indebted for the opportunity of exhibiting it to you. How frequently, also, has the head of the femur so separated been removed by operation. We have already seen that the very first removal of the head of the thigh-bone from the acetabulum was a case of this description performed by Schmalz in 1816. In 1730 John Daniel Schlichting dilated a fistulous opening over the hip of a young girl aged 14, long the subject of hip disease, and through it extracted the head of the femur, which had become detached. Similar cases are recorded by Vogel, Harris, Reid, etc.

Watch a patient suffering from scrofulous disease of the hip-joint: for many months the symptoms may consist only of stiffness, tenderness, and more or less weakness and limping, without hectic or constitutional disturbance of any kind. Watch that same patient during the progress of ulceration, suppuration, destruction of the ligamentum teres, and consequent dislocation: then the hectic and constitutional irritation are at their height. Watch the same patient again when dislocation has completely obtained: the disease now appears to have exhausted its rage, to have overcome all obstacles to its course, and to be satisfied with the mischief it has caused; the constitutional symptoms subside, the abscesses frequently heal up, and a cure takes place.

Can it be asserted that a case such as this is not one of caries of the joint? Can it be also asserted that the acetabulum is not here affected? that the fact of a cure is conclusive against such a proposition?

It would seem that in such instances the luxation of the head of the bone is essential to recovery; and when it does take place spontaneously, other symptoms being favourable, I would not urge too great haste in proposing an operation. But, alas! how frequently is it otherwise; how frequently does the strength of the patient prove insufficient to cope with the disease. The bone becomes carious, rough, or broken up; sinuses form, they continue to discharge, and still further to weaken the patient; hectic fever, night sweats, emaciation, loss of appetite, restlessness, cough, in some cases spitting of blood, ensue; the lungs become affected, and the patient dies. It is in such cases as these, when the irritable and frequent pulse, the hectic flush, the wasting strength, the anxious and suffering countenance too surely denote the undue severity of the trial and the too great probability of death, that the Surgeon should throw aside his doubts, should boldly confront the mischief, and, by imitating the wise and beneficent workings of nature, endeavour to snatch his patient from that destruction which otherwise inevitably awaits him. We have seen what takes place in the acetabulum when spontaneous dislocation of the head of the bone has taken place. What, I should like to ask, is there in the operation to prevent the same process taking place after the head of the bone has been removed artificially?

But if these objections have had their influence, and been allowed to prevail as they undoubtedly have done, what a signal triumph must excision of the hip-joint have achieved, since we find that, of 126 patients suffering from caries, who, according to these theories must inevitably have died, no less than seventy-one recovered with more or less useful limbs!

Again, we are told that the operation for removal of the head of the thigh-bone should be restricted to those cases in which the head of the bone is dislocated. Although this was a point mainly insisted upon by those who advocated the operation prior to the year 1857, no one attempted to assign a reason for the restriction save Mr. Coulson, who says—"The first condition is the absolute displacement of the head of the bone; for as long as the neck and the trochanter are in relation to the acetabulum there is a chance of anchylosis taking place, which is the most favourable termination to be looked for."

This appears to me to be a scarcely tenable position; it has never as yet been proposed to operate whilst a chance of cure by other means has been apparent. Anchylosis, it must be remembered, is the last process of hip disease; it must have been preceded by the inflammation, ulceration, and suppuration, and by the hectic fever, constitutional irritation, and consequent weakness and emaciation. It is by no means all who die of hip-joint disease who have attained the stage of anchylosis.

We know that whilst in some cases the head and neck of the femur may be destroyed by caries, in some they are comparatively sound; and in others, again, both they and the acetabulum are free from disease, the patients dying from the intensity of the constitutional irritation rather than from the amount of local mischief. Take the following case, related by Sir Benjamin Brodie:—A young lady, aged 9 years, being at play on January 1, 1808, fell, and wrenched her hip. She experienced so little uneasiness, that she walked out that day as usual. In the evening she went to a dance, but while there was seized with a rigor, was carried home, and put to bed. Next morning she was much indisposed, and complained of pain in the thigh and knee. On the following day she had pain in the hip, and was very feverish. These symptoms continued; she became delirious, and died just a week from the time of the accident.

On inspecting the body on the following day, the viscera of the thorax and abdomen were found perfectly healthy. The hip-joint on the side of the injury contained about half an ounce of dark-coloured pus, and the synovial membrane, where it was reflected over the neck of the femur, was destroyed by ulceration for about the extent of a shilling.

In another case, the preparation of which was shown to the Medical Society of London by Mr. W. Smith, the patient, a boy in the employ of one of the railway companies, was delivering parcels on a Christmas morning. In getting out of the waggon he slipped, and sprained his hip. He thought nothing of it at the time, but after a few hours he became so ill that he was obliged to be taken home. The subsequent progress of the symptoms closely resembled those in Sir Benjamin Brodie's case, and the boy died within a week after the accident. The hip-joint after death was found to contain about a table-spoonful of decomposed blood and matter, and the synovial membrane presented a rent about three-quarters of an inch long at the point where it was reflected over the neck of the femur.

Fortunately, such cases as these are rare, but I think that in the present day few Surgeons would fail, when the delirium came on, to recognise the gravity of the case, or hesitate for one moment to excise the head of the femur, and thus get rid of the poisonous fetid discharge and its source, and at the same time afford the patient a chance of recovery, since the conformation of the joint is such as to render a mere opening into the capsular ligament insufficient for the evacuation of the pent-up discharge.

We know, also, that the head of the bone may be entirely detached from the neck, and still remain in the acetabulum; and, lastly, that caries and anchylosis may coexist in the same joint, and the patient sink worn out before the latter is completed, notwithstanding the head and neck of the femur have remained in relation with the acetabulum.

It is possible that the dread of exposing so large a joint-surface as the acetabulum, and of the supposed consequent tax upon the patient's power of endurance in getting rid of the joint structures and the obliteration of the cavity, may have influenced this recommendation; but experience has proved that the danger of exposing joint-surfaces is for the most part inverse to the extent of surface exposed, whilst it has also shown that in this operation the presence of the investing cartilage exerts but comparatively slight influence over the healing of the wound.

The stress laid by Mr. Anthony White upon the displaced head of the bone acting as a foreign body, and also upon the complete obliteration of the acetabulum, with the successful termination of that case, doubtless had its weight; but it is curious that in Schmalz's case—the first, as we have seen, on record—both conditions obtained. The head of the left femur was dislocated on to the dorsum ilii. That of the right was still in its cavity, which, however, was in a state of suppuration. It was the latter which Schmalz excised, and the patient did well.

A priori, it is reasonable to suppose that when the head of the bone has been dislocated for sufficient time for the acetabulum to be obliterated, the operation would offer a greater chance of success than when performed under other circumstances; that, in point of fact, the process of healing would be simplified and shortened. But against this must be placed the intense struggle of that fearful period preceding dislocation, which tries the patient's powers of endurance to the utmost limit; and it should, moreover, be remembered that the value of this recommendation, if any, exists, not in the mere displacement of the head of the bone, but in the obliteration, cure, or absence of disease, of the cotyloid cavity. And this coincides for the most part with what is proved by the statistics of the operation. Sixteen operations were performed in which spontaneous luxation had taken place, and wherein the acetabulum was found to be either entirely obliterated or in a healthy condition; of these 8 were cured, 2 died, and the results of 6 are stated to have been doubtful. Forty-three operations were performed in which spontaneous luxation had taken place, but wherein the acetabula were found diseased, and in many instances were gouged, in some few cauterised; of these 43 operations, 16 resulted in cure, 18 died, and the results of 9 were doubtful. Forty-four operations were performed in which the head of the bone was found in the acetabulum, but in which the latter was implicated in the disease; of these, 28 were cured, 10 died, and the results of 6 were doubtful. Eight operations were performed in which the head of the bone was found in the acetabulum, the latter being healthy; of these, 3 recovered, 4 died, 1 was doubtful. Ten operations were performed in which the head of the bone was found absorbed and the acetabulum diseased; of these, 5 were cured and 5 died.

Hence we find that, had the recommendation that the operation should be restricted to those cases in which spontaneous luxation had already taken place prevailed, the sphere of its utility would have been very much and very prejudicially contracted, since of 123 cases, 52 were performed in which the head of the femur remained in the cotyloid cavity.

It is sometimes extremely difficult, if not almost impossible, to tell with any degree of certainty prior to the operation whether the head of the bone be dislocated or not. And, after all, the success of the operation would appear to depend very much less upon this point than those who made this recommendation seem to have supposed; for we see that in the 16 cases where the head of the bone was dislocated and the acetabulum free from disease, the mortality was 12 per cent. In the 43 cases where the bone was dislocated and the acetabulum diseased, the mortality was 56 per cent. In the 10 cases where the head of the bone was absorbed and the acetabulum diseased, the mortality was 50 per cent. In the 44 cases where the head of the bone remained in the cotyloid cavity which was diseased, the mortality was 28 per cent.; whilst in the 8 cases in which the head of the bone remained in the cotyloid cavity, the latter being healthy, the mortality is by far the highest, being 62 per cent.

(*To be continued.*)

ORIGINAL COMMUNICATIONS.

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

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VI.

SARCOMA—(*Continued*).

Glioma: its Clinical Characters of Malignancy and Microscopical Structure—Psammoma.

CLOSELY allied to the small round-cell sarcoma, illustrated in the last paper, is the special tumour of nerve, to which Virchow has given the name GLIOMA (γλία, glue), but which is still usually grouped with the medullary cancers by English Surgeons. This growth proceeds from the *neuroglia*, or delicate connective tissue which supports the nervous elements of the brain and its extensions, and more frequently comes under the observation of the ophthalmic Surgeon than of those of his brethren who practise general Surgery. It may occur in the brain, and so give rise to the special symptoms of brain tumour, according to its position; but it is more usually encountered springing from the retina of a child—for glioma is almost wholly limited to early life, the intra-ocular tumours met with in later years being generally sarcoma, or rarely carcinoma. The child is brought to the Surgeon blind, and with, perhaps, already a peculiar yellow metallic brilliancy of the pupil. Ophthalmoscopic examination reveals a whitish mass bulging into the vitreous, and interfering more or less considerably with the normal position of the lens and other parts of the eye. If now the eyeball be removed—as it should be without delay—a section through the globe will probably bring to light a pinkish-white brain-like mass with opaque yellow spots through it, springing from some portion of the retina, projecting forwards into the vitreous, and involving to a greater or less extent the other tunics of the eye.

After hardening this structure in suitable reagents, thin sections can be made, and it is then seen that the mass is made up of closely aggregated, very small corpuscles, round, oval, or tending in parts to a spindle form. These corpuscles are granular, with one or two bright central dots, and are embedded in a soft amorphous or obscurely fibrillated stroma. The stroma is usually so soft and scanty as to be with difficulty discerned, but about the edge of a very thin section it may happen that some of the corpuscles may be displaced, and the connecting substance is then more clearly visible (Fig. 16). In other cases the stroma is distinctly fibrillated; and this fibrous element seems particularly developed in the secondary gliomatous growths. The corpuscles are mostly the size of leucocytes, or smaller; and, save for their delicacy and position, have little to distinguish them from the elements of round-cell sarcoma already figured. In certain cases, indeed, the cells may assume a much larger form, and, passing into spindle shapes, be wholly undistinguishable from the sarcoma elements furnished by the coarser forms of connective tissue. The yellow, opaque spots are cheesy masses, the result of the fatty degeneration of the new tissue, which has, doubtless, often led older observers to call this growth "tubercle" of the eye.

FIG. 16.

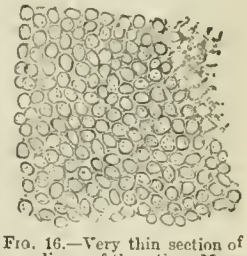

FIG. 16.—Very thin section of a glioma of the retina. Magnified 220 times.

From this sketch of the tumour it will be inferred that glioma should exhibit features of malignancy, just as we have seen sarcoma to do; and there are not wanting records of cases which sufficiently justify the position of glioma amongst the cancers. Although rarely encountered as a secondary growth in the abdominal or thoracic cavities, Knapp has

recorded a case of secondary glioma of the liver, and Virchow a similar growth in the kidneys, and instances of extension to the brain and of infection of the neighbouring lymphatic glands and of the bones of the face have been mentioned by other observers. Growing commonly as a single nodule in the retina, multiple growths in the same tunic have been met with, and loosened tumour-cells from a detached retina may alight upon the choroid and give rise to fresh growths in that structure. In the later stages of the disease the growth freely involves the tissues with which it comes in contact, and finally projects from the orbit as a bleeding, fungating, unsightly mass, infiltrating the parts around, and causing hideous deformity of the face.

The history of these examples of malignancy warns the Surgeon not to delay an operation which may be completely successful in the eradication of the disease, if performed in time; and the practice of Mr. Hulke—to whose valuable researches on this, as on other points of ocular pathology, English Surgeons are so greatly indebted—of dividing the optic nerve close to the foramen, and of applying chloride of zinc paste to the interior of the orbit, lest some remains of infectious material light up fresh mischief, must commend itself to all operators. This precaution is specially desirable in those not infrequent cases in which the optic nerve, divided at first close to the globe, is found swollen, with a creamy fluid oozing from its cut surface.

Occurring in the brain, glioma assumes the form of a soft roundish tumour of grey semi-translucent material, not unlike recent infiltrated tubercle, but softer, more vascular, and larger than most tubercular masses, and with less tendency to extensive cheesy metamorphosis. Microscopically the structure of the brain tumours corresponds in all respects with those developed in the retina.

Psammoma.—The tumour to which Virchow has given this name, from the circumstance of its containing "brain sand" (ψαμμος, sand), is sometimes classed with the sarcomata, although not much resembling any other member of this group; and it is included in this series more on account of its rarity and want of recognition by English writers, than because it presents many features likely to be taken for those of cancer. The growth is found usually springing from the membranous envelopes of the brain and spinal cord, or in the choroid plexus, and it derives its peculiar aspect from the fact of its holding amidst its other elements a varying proportion of the curious *corpora amylacea*, which, when infiltrated with salts, form the so-called "brain sand" so frequently met with in the choroid plexus and in the lining of the cerebral ventricles. MM. Cornil and Ranvier have styled this tumour "*sarcôme angiolithique*," from the close connexion found by them to exist between the sandy particles and the small bloodvessels; but little as this growth is known at all, it is perhaps more familiar by Virchow's original appellation than by the more recent French name.

Psammoma may occur as mainly a cystic formation, affecting the choroid plexus, and causing cerebral symptoms only when attaining a large size, or it may assume rather the appearance of a papillary or warty growth, springing from the arachnoid or dura mater, and under these circumstances the flattened, slowly growing projection may give rise to no symptoms during life, and will attract notice only as a curiosity in the eyes of the morbid anatomist. In a specimen of the latter variety kindly given to me some weeks since by my friend Mr. Marcus Beck, the tumour was about the size of a florin, and three times its thickness, and its wart-like papillæ sprang from the inner surface of the outer layers of the dura mater, lifting up its inner layer and projecting through this, thrusting aside the ulcerated thin membrane all round. The ragged-looking papillæ were barely held together by some scanty connective tissue, and evidently contained no small amount of gritty particles, although there were no large grains such as are often met with in the choroid plexus. Examined microscopically, scrapings and teased portions (for the loose construction of the mass rendered thin sections unobtainable) showed that the bulk of the new growth was made up of aggregated flattened fibre-like cells, having much the appearance of connective tissue elements when seen in groups. Isolated cells, however, bore a closer resemblance to delicate irregular pavement epithelium. Many vessels ramified through the growth, and the peculiar concentric bodies—the corpora amylacea—occupied a conspicuous place in every preparation. These bodies had generally so hard and black an outline as to resemble air-bubbles until more careful focussing brought into view a few irregular highly refracting particles in the centre, and faint concentric rings surrounding these, a bold black outline marking the circumference of the tiny spheres. Outside this strongly marked border was generally a lighter fibrous zone (Fig. 17). Some of the bodies were

Fig. 17.

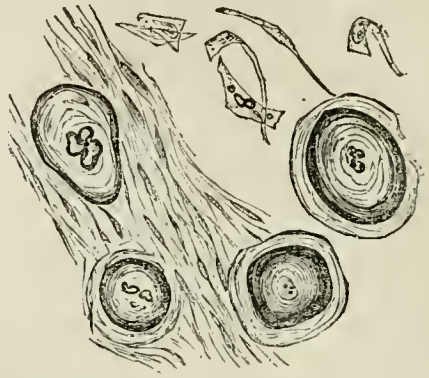

Fig. 17.—From a teased-out bit of a psammoma of the dura mater, showing the concentrically marked bodies and some detached epithelial cells. Magnified 220 times.

pale and free from calcareous incrustation, but the majority were more or less thoroughly infiltrated. Prolonged and careful examination, however, failed to discover any connexion with the vessels such as has been described as an essential characteristic by MM. Cornil and Ranvier. The concentric structure of the bodies seemed to be brought about by the regular superimposition of the delicate flattened cells constituting the bulk of the tumour, and they bore a close resemblance to the "*globes épidermiques*" of epithelioma, the tendency to infiltration with calcareous salts forming their chief distinction from these.

Whether these tumours should be classed with the epitheliomata or simple papillomata rather than with sarcoma, and what is their origin and history, are questions interesting to the pathologist rather than to the practical Surgeon, who is so little likely to encounter them that some apology is necessary for their introduction into these "Notes," whose scope is avowedly purely practical.

(*To be continued.*)

THE EPICONDYLOID FORAMEN.

By J. BESWICK PERRIN,
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In my paper on the "Epicondyloid Foramen, etc.," published in the *Medical Times and Gazette* of January 13, I state in a footnote that "This foramen has been described by Professor Struthers (*Lancet*, 1863)." The Professor has kindly called my attention to the fact that the paper referred to was not his original communication on the subject. His first paper was published in 1848, in the *Edinburgh Medical Journal*, and illustrated with a full-sized woodcut. His second and chief paper appeared in the *British and Foreign Medico-Chirurgical Review* in 1854. Thanks to Dr. Struthers' kindness, I have had an opportunity of reading the latter paper. I regret that I had not seen it before I published my own. Since, however, I was not aware of it at the time, it is necessary that I should repair the omission, and do him this justice, which so exhaustive and valuable a memoir deserves. He there describes no less than fifteen specimens of the process, the anatomy of the soft parts in connexion with the process, and also specimens met with in the lower animals, etc. In one of his specimens he states, "There is also an intercondyloid foramen large enough to admit the little finger, and evidently natural," as in the specimen which I described. In his letter to me Dr. Struther says—"I have often wondered that it has been so long in attracting much notice—it is so interesting and significant. . . Though I find it common enough in nature, it is rare in museums. But I lately saw two specimens of it in the anatomical museum in Jena, and one of the skeletons in the anthropological department in the Jardin des Plantes shows it. I noticed also, in Cuvier's palæontological collection, the humerus of a bear with a well-marked supracondyloid foramen; the bear, you are aware, not having it normally."

Dr. Wilks has called my attention to a beautiful specimen of this process preserved in the museum at Guy's. He says that

"some years ago, when he revised the catalogue, he found it described as an exostosis."

Dr. Struthers does not think that the epitrochlear hole is of so much scientific value as that of the epicondyloid. Neither do I. The evident metamorphosis which the latter foramen undergoes, as met with in different animals, is uninfluenced by such a disturbing force as pressure, which is evident enough in the history of the formation of the epitrochlear forsmen, though I am unwilling to admit that pressure has everything to do with it. Still, it must be admitted that it is of secondary importance to its neighbouring more interesting and suggestive epicondyloid process or foramen.

ON MITRAL STENOSIS, WITH SOME REMARKS ON CARDIAC PATHOLOGY AND THERAPEUTICS.(a)

By ALEXANDER SILVER, M.A., M.D.,
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The following case of pure mitral stenosis, with presystolic but not malignant bruit—there being obstruction to the blood-flow, but no valvular incapacity—is of interest, not only on its own account, but on account of the many points connected with cardiac pathology on which it throws light.

The patient, G. J., aged 16 years, of 95, Union-street, Kennington, is a printer's boy. His father and mother are both alive and well. He has only one brother, who is young, but six sisters alive, five being healthy, the eldest aged 14, and one (the next born after him) the subject of heart disease. Two sisters died, one in infancy, and one of small-pox.

He himself is somewhat undersized, with badly developed muscles, and slight spinal curvature towards the left side—the scapula of which side projects. The left shoulder is somewhat higher than the right, and the left side of his chest is slightly flattened; but the whole chest in front and behind, and especially in front, is badly developed, rickety, somewhat pigeon-shaped, or perhaps better described as infantile; but the legs are straight. Breathing is somewhat imperfect, the walls of the chest being drawn in on each inspiration, and the abdominal and cervical muscles being used in ordinary respiration.

Up to six years of age, beyond the fact that he lived in a damp neighbourhood, no history was obtainable from the boy himself, but at that age he says he had an attack of rheumatic fever for which he was treated at St. George's Hospital. There is a vague history of heart complications at that date.

He says that, as far back as he can remember, he could never run as fast or as far as other boys of his age, being stopped by shortness of breath. He went to school in due course, but nothing unusual in his history happened for some years, till he had another attack of rheumatism in his knees, elbows, etc. He was ill six weeks, was treated at home, and was then sent into the country. He believes that his breathing was worse after the second attack. He remembers nothing about palpitation. After this he went to work at an ironmonger's, but could not do it well on account of shortness of breath.

Two years after he had another rheumatic attack, less severe than the former, in his knees and ankles. Still there is no history of anything except shortness of breath. At this time he was at work as a printer's boy, and had to take it in turn with the other boys to drive a small cylinder machine, which he could not work as long as the other boys on account of shortness of breath and afterwards of palpitation.

He also suffered somewhat from cough, and spat up phlegm streaked with blood. In November last the blood became more abundant, and he brought up some mouthfuls of blood without cough. He then applied for relief, and became an out-patient under Dr. Green, by whom the disease was diagnosed, and by whom he was transferred under my care, and he became an in-patient on December 11, 1871. He was then suffering from a bronchitic attack, and had been bringing up blood somewhat freely. He was ordered a mixture containing digitalis and ipecacuanha.

On inspecting the chest, after exercise, the impulse of the heart is visible over an area extending from the second to the sixth intercostal space, and from the right side of the epigastrium to a little outside the left nipple, over which the parietes are dragged inwards at each recession of the heart's wall. Over nearly the whole of this region the impulse can be felt, but its maximum intensity is over the fifth interspace, some distance within the nipple-line. This impulse, as communicated to the hand, consists of a vibrating tremor and a beat, the thrill immediately preceding the beat; but the thrill, under ordinary circumstances, is not perceptible in the fourth, and but barely so in the sixth interspace. Neither is it felt over the cartilages of the ribs, nor beyond the line of the nipple. The "thrill area" is about one inch and a half in diameter, and its centre is situate two inches downwards and inwards from the left nipple, and two inches outwards from the ensiform cartilage.

Over the point where the vibration is greatest is heard a loud churning sound, apparently taking the place of the first sound, and ending in a short, sharp, clicking sound. The first of these is not ordinarily audible above the level of the fourth rib, and its maximum intensity is limited to a small space in the fifth interspace. On listening, with the finger on the pulse, it is, however, seen that this bruit precedes the pulse, and that the short sharp sound is coincident with the pulse. This is more noticeable with the wrist-pulse than that of the carotid—the former being apparently somewhat retarded. No true second sound is therefore audible at the apex, its place being taken by a pause; but above the line of the fourth rib the sounds are heard in their usual order, the second sound at the base being on the right somewhat prolonged, and occasionally reduplicated. The area of dulness is more extensive than usual over the right side of the heart, and an epigastric beat is well marked. The apex, too, or point where the heart impinges against the chest-wall, is within the line of the nipple and in the sixth interspace. The abnormal sound is heard, but not well, in the left axilla and at the left bladebone. The veins of the neck are not enlarged, neither are those of the lower extremities; the liver is not enlarged, and the bowels are quite regular and the urine natural. The legs are quite natural; they have never swollen. The only complaint has been shortness of breath, palpitation, cough, and hæmoptysis.

Exercise of any kind readily induces breathlessness and palpitation, with marked increase of the morbid sounds and impulse.

His pulse is ordinarily about 80, but varies in an extraordinary fashion. At first it intermitted every fifth beat; at other times it would intermit in a more irregular fashion; and anon it would be steady. Exercise speedily increases its rapidity, and then, too, I think I can detect, in the third left interspace, an impulse differing in point of time and not perceptible lower down towards that felt in the fifth. This is best made out by causing him to expire powerfully.

In studying this case we shall do well, first of all, to confine ourselves to certain of the most obtrusive symptoms. These are, this peculiar bruit and thrill, this abnormal apex-beat, and the general condition of the boy.

Of the bruit, it is exceedingly local in character, notwithstanding its intensity; for it is barely heard above the fourth rib. Moreover, as to its rhythm, it distinctly precedes the apex-beat and the pulse, whether felt in the neck or at the wrist. Then, too, its note is peculiar; it may be described as churning or rasping, but it has nothing of the blowing character more commonly characteristic of cardiac bruits. Its area is that of ordinary mitral sounds, but it is heard before the ventricle begins to contract, and so cannot be of the kind ordinarily called systolic. And here we may pause to reflect upon the alteration which the first sound has undergone. In tone it resembles a normal second sound, being short, sharp, and distinct, utterly unlike the prolonged sound commonly heard coincident with the impulse of the heart. The reason of that is, I think, and as I shall try to show, clear enough, and helps us to a more exact diagnosis of the actual condition of the boy's heart. The abnormal sound we hear is in point of time presystolic, and were we not careful to examine the pulse it would seem as if this presystolic bruit was systolic, and this altered first sound a healthy second one; for at the apex only two sounds are to be heard, the bruit and the sharp flapping or clicking sound; the true second sound is wanting. The reason may be that it is not conducted to that point, which not unusually happens in conditions called healthy. At the base the second sounds, both on the right and left sides, are clearly audible, as I shall have occasion to point out. The abnormal sound we hear, then, is a presystolic bruit—it is strictly confined to the mitral area; and so, from that circumstance alone, we are able to predicate the existence of some obstruction to the flow of blood from the auricle into the ventricle on the left side, which other circumstances lead us to

(a) Communicated to the Medical Society of London by the President, Dr. Andrew Clark.

assign to contraction of the left auriculo-ventricular orifice —what, for shortness, we call mitral stenosis.

With regard to the thrill, it, too, is peculiar. It communicates to the hand the impression of trembling or vibration similar to that communicated by a purring cat, and so, in various languages, it has been called a "purring tremor." This thrill is commonly put down as indicative of some valve-mischief, especially of the mitral valve, and has been looked upon as one of the common accompaniments of mitral insufficiency—probably in a certain number of instances, in cases similar to the present, owing to mistaking the true first and altered sound for an unaltered second. Certain it is that such a thrill as is here present has been commonly encountered in cases where mitral stenosis has been diagnosed during life.

Next, as regards the apex beat. That is seen and felt in an abnormal situation. It is too low down and too far to the right side. Yea, in the epigastrium itself may be felt the unmistakable impulse of the heart, not indirectly communicated, as is sometimes the case, but so that the wall of the ventricle may be felt almost as directly as over the ribs.

With regard to the general condition of the patient, I would especially note his imperfect development and badly formed chest; his long-continued breathlessness and his inability to undergo exertion; his troublesome cough; and, finally, his attacks of hæmoptysis. I would also specially allude to the character of his pulse when admitted, but now, fortunately, gone. It was exceedingly quick, very irregular, and often intermittent—on an average, about once in every fifth beat. In other respects the boy seems well, and it is on these points I mainly desire to comment.

Before, however, proceeding to do so, I fear I must inflict on you some remarks on the normal action of the heart, which, however profitless to you in themselves, seem necessary to a right understanding of this subject. For clinical purposes it is usual to consider the action of the heart with regard to two of its factors only. These are the contraction of the ventricles, which is commonly called their systole, and their subsequent dilitation, to which the term diastole strictly applies. So far as the former of these is concerned, this is strictly accurate; and the term systolic bruit—meaning thereby a morbid sound taking the place of the first or long sound of the heart, as occuring during the period of ventricular contraction, and owing its production to this contraction—is a strictly accurate scientific use of the word. But when we come to speak of a diastolic murmur, this is not so. During the period that the ventricle is filling and making ready for its next great contractile effort, two totally different sets of duties are being fulfilled by other portions of the heart's substance or of the adjoining and connected structures. One of these is the filling of the ventricle itself, the other is concerned with preventing the filling of it in an improper fashion. The former of these is ordinarily unaccompanied with sound; the latter is remarkably sonorous, and so has attracted to itself the major share of that attention which should have been equally assigned to its quieter contemporaries. Suppose the ventricle contracting with all the force necessary to drive the blood through every part of the body and back again into its own recesses; for it is necessary to have a clear conception how, for every volume of blood ejected from the ventricle, an equal volume must before its next stroke be returned to itself—otherwise, the balance of the circulation would be destroyed, and a fatal accumulation and stagnation would result. But having contracted on its contents and ejected them—and for this exit in a healthy heart only one way is open, viz., into the aorta—the muscular wall of the ventricle promptly passes from a state of rigid contraction to one *not* of perfect dilatation, indeed, but of general relaxation, with some degree of dilatation; whereas the parts just beyond it are in a condition of distension. The contracting ventricle has driven into the elastic aorta more blood than the latter can well accommodate, and has expended part of its force in expanding the elastic walls of the vessels so as to accommodate the surplus blood. This force is not lost—it is only in abeyance; for no sooner does the distending power of the ventricle come to an end, than the elastic aorta recoils on its contents, which, in turn, close fast those floodgates we call the semilunar valves; and so, the blood being under normal circumstances prevented from flowing back into the ventricle, the force stored up in the aorta is expended in driving the blood onward in its due course. The abrupt closure of these valves gives rise to such a sound as we hear when we close a tap of water running under high pressure; this sound we call the second sound of the heart. It is also, however, called the diastolic sound of the heart, unfortunately; for it is due to causes having their seat outside the heart—namely, as I have said, to recoil of the aorta; and although it takes place during the diastole, it is not the only occurrence during that period which may give rise to sound.

We have seen that any backward flow of blood from the aorta is, in a healthy heart, promptly arrested; but the pressure of the arterial system may operate in an opposite direction; and so, as the ventricular wall grows flaccid, the blood pent up in the venous system and auricles whilst the ventricle was contracting, abruptly forces open the auriculo-ventricular orifice, and so the blood passes freely into the expanding ventricle. This takes longer time than it does to close the aortic valves, for the veins do not recoil so speedily as do arteries; and so the flow of blood from auricle into ventricle goes on after the second sound has ceased. This period, in the healthy heart, is characterised by no sound; it is part of what is called the pause. Nevertheless, seeing that the ventricle is filling during the whole of it, it is truly diastolic.

But the time comes when it is necessary for the ventricle to act; and to act with most advantage it must be quite full, or even distended. Moreover, as may easily be understood, it is essential that some provision should be made for the reception of blood during its contraction. And so, alike for filling the ventricle quite full and to make room for the blood which will come from the veins during the ventricular systole, the auricle contracts on its contents and empties them into the ventricle. This, too, it is plain, occurs during the ventricular diastole; for does not the ventricle receive the contents of the auricle, and become distended thereby? And so, too, this effort of the heart is strictly diastolic, though long subsequent to the second sound. Normally, this effort of the heart is accompanied by no sound; it too, occurs in what is called the pause, though, when the orifice is much contracted, an abnormal sound or bruit may be heard—a bruit which, occurring as it does immediately before the systole of the ventricle, is commonly called presystolic. Nevertheless, it is plain that such a sound can only take place during the diastole of the ventricle; and such a term as "post-diastolic," which I have heard applied to it, is rank nonsense—nay, more, it is the embodiment of error.

It is such a murmur and such a condition we have this night met to discuss, and I trust that these remarks may prepare the way for the better understanding of them.

(To be continued.)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

TWO CASES OF LATERAL LITHOTOMY.

(Under the care of Mr. HULKE.)

The first does not present anything remarkable. The patient, a child; the stone, mulberry, and not very large; uninterruptedly favourable progress, and dismissal from the Hospital at the end of a month.

The second case has features of peculiar interest. The patient, a gouty, middle-aged man, whose excessively irritable bladder and albuminuria, the size of the stone and its evasion of the lithotrite when an attempt was made to seize it for the purpose of measuring it (which raised a suspicion of some peculiarity in the bas-fond of bladder), negatived lithotrity; whilst the unusual depth of the prostate from the surface, and a not inconsiderable enlargement of this gland, concurred to render lithotomy difficult. The reception of the stone in a sacculus—a circumstance thought by some persons to be not very exceptional, and by others never to happen—here constituted the principal difficulty in the operation, and a slight unavoidable laceration of the mucous lining of the sac led to urinary infiltration of the pelvic cellular tissue.

A boy, aged 7, from Buckinghamshire, was admitted August 16, 1870, into Percy Ward, with symptoms of stone in the bladder of uncertain duration. They were not very urgent. He was plump and hearty; he did not micturate very often, and did not seem to be in much pain. The urine was acid, sp. gr. 1027. On standing, it separated into an abundant whitish flocculent deposit of pus, with oxalate of lime.

26th.—Mr. Hulke removed the mulberry calculus by lateral lithotomy. Next day his temperature in the armpit had risen

to 99·5°; from the fourth to the ninth day, inclusive, it averaged 100°, and after this quickly declined to normal.

September 7.—All the urine was voided per urethram, and a few days later the wound had perfectly healed.

A very stout, gouty man, 55 years old, from Bedfordshire, was admitted into Forbes Ward, August 10, 1871, with unusually severe symptoms of stone. Very great pain in the end of the penis, in the thighs, and hips; urine expelled every five minutes day and night, turbid, often bloody, albuminous. Rest broken; tongue furred; pulse 100; temperature 100·5°. He said that he had suffered with his bladder six years. Five years ago he voided, per urethram, three stones, and another of the size of a horse-bean one year ago. On sounding, a large rather rough stone was detected. He was kept in bed, and ordered anodynes with an alkali. The urine was acid. Four days later the bladder was found to be less irritable; he only micturated four times per hour, the albumen had fallen to 1 in 60, and his temperature had fallen slightly. On trying to catch the stone with a lithotrite, in order to ascertain exactly its size, it would not be seized, and seemed to get out of the way of the instrument behind the enlarged prostate. Even when the beak was turned downwards, although the stone could be easily touched, it could not be laid hold of. The prostate could only just be touched with the finger in the rectum; it was enlarged. Lithotrity being negatived by the great irritability of the bladder and large size of the stone on August 16, Mr. Hulke removed the stone (a large oval lithic acid one) by lateral lithotomy. The bladder lay so deep that the finger scarcely reached it, and though the stone was easily touched with the forceps, it could not be seized, even with a curved one, until the base of the bladder had been tilted up with a couple of fingers thrust high into the rectum. Before this manœuvre the impression received by the operator was that the greater part of the stone was overlaid by mucous membrane. The patient's heart was weak; he took chloroform badly, and was long in recovering consciousness.

Next day, August 17, his axillary temperature had risen to 102·2°, and his pulse was 102; he had slept half the night; the urine ran freely through the wound; he complained of a little soreness in the bottom of the belly.

18th.—Had a restless night; pulse risen to 130; and temperature fallen to 100·2°. Slight redness, with tenderness above the left groin; the urine still flows freely through the wound, but a few drops come by the urethra. In the afternoon he rather quickly sank, dying at seven o'clock.

At a post-mortem examination of the body made next day the muscular coat of the bladder was found to be greatly hypertrophied, and between the muscular fasciculi three pouches of mucous membrane protruded at the summit, and a fourth at the left side of the viscus; while between the bladder and the rectum was a fifth and very large pouch, the orifice of which lay just behind the prostate, evidently also an extension of the vesical mucous membrane. The shape of its vesical opening was a long transverse oval, and the posterior lip nearly overhung the anterior one, making it nearly valvular. There could not be any doubt that the stone had lain in this cavity. A purulent œdema of the pelvic cellular seemed traceable to a slight rent in its mucous lining. The pelvis and calyces of both kidneys were dilated. The aorta and mitral valve were atheromatous, and the heart laden with fat.

TUBERCULO-SYPHILITIC DISEASE OF TESTES—CONTRACTION OF SUBMUCOUS TISSUES OF THE LARYNX—DEATH FROM APNŒA.

(Under the care of Mr. NUNN.)

Henry S., aged 25, married; admitted February 7, 1871. He had been twice in the Hospital before; the first occasion was in November, 1867, and the second in January, 1869. On referring to the registers, the following notes were found of his condition at the times of these admissions:—

"1867. Henry S., aged 21, single; November 5. No previous venereal attack; a primary syphilitic sore on penis six months ago. On admission, an ulcer at left angle of mouth, others in throat; unhealed sore on glans penis."

"1869. January 18; aged 24, married. Hardness of testicles of twelve months' duration. Fungating four weeks. At lower and anterior part of scrotum on the right side is a pale fungating mass the size of a walnut. Both testes hard, and the left much enlarged. An excavated ulcer in throat; voice husky, throat sore, very cachectic-looking."

Admitted February 7th, when he complained of sorethroat, huskiness of voice, and weakness. He had a very cachectic appearance. Both testes were enlarged, especially the left. At the lower and front part of right testis the skin was adherent; at the upper and fore part of left, which was as large as a large pear, there was noticed slight fluctuation.

On the February 22 there were symptoms of dyspnœa; and death followed on the 23rd, suddenly, he having improved during the day. He was talking shortly before death.

The following is extracted from Mr. Morris's report of the post-mortem examination:—

Epiglottis, pillars of fauces, epiglottidean folds, and larynx as low as free edges of upper cords, contracted, thickened, and hardened. No vascularity of the parts, and the surface was of a dull whitish hue. There was no evidence whatever of recent ulceration, but at the base of the epiglottis, both in front and at the sides, were a few somewhat deep depressions, but without any breach of the surface; these were due, no doubt, to the contraction of the submucous fibrous deposit, and consequent puckering of the mucous membrane covering this. No soft œdema of larynx or glottis. Both testes on section showed well-marked whitish-yellow firm deposits in their substance. On opening tunica vaginalis on left side, a small encysted hydrocele was cut into. This was situated immediately above the testis. In this testis were three large and one small whitish-yellow firm deposits, which were surrounded by the tubular structure of the testis. This also was firm, and coarser than normal, and could not readily be teased out. The right testis was of the size of a hen's egg, and in it was a mass the size of a Kentish cob-nut at the lower and forepart of the organ; and running transversely across the cut surface was a distinct whitish-yellow streak of deposit, similar in character and appearance to that constituting the better-defined nodules. There was no deposit in any other organ; no nodes on the bones; no albuminoid degeneration of viscera.

This is a good illustration of the tubercular syphilitic sarcocele described by Hamilton, of Dublin, in which, distinct from more common varieties, in which deposit is uniform and outside tubes, it is usual to have patient in cachectic condition, both testes affected, and not usually, as in earlier stage of this instance, the protrusion of a fungus. It is thus distinct from the more common variety of syphilitic testis, in which the deposit is uniform throughout the substance of the organ and outside the tubules, and which affects only one organ, and occurs in patients in good health. Another feature of interest was the presence of an encysted hydrocele, which is an unusual occurrence in tubercular syphilitic sarcocele, but not uncommon in the other form of the disease. The sudden access of death was quite unlooked for. Though on the day before he had suffered from slight dyspnœa, there was nothing in his condition to lead one to expect so rapid a termination of the case. Nor did the post-mortem examination reveal any recent disease about the respiratory tract, although the well-marked results of former syphilitic ulceration were present about the larynx and epiglottis.

ST. PETER'S HOSPITAL.

VERY LARGE STONE IN THE BLADDER—LITHOTOMY—RECOVERY.

(Under the care of Mr. TEEVAN.)

A. W., AGED 32, hawker, was admitted into the Hospital September 27, 1870.

History.—The patient stated that he first noticed pain at the end of penis, when urinating, as far back as three years. Two years ago he first passed a little blood, after running. Six months ago he suffered much pain when riding in an omnibus, and afterwards passed blood. Has never ridden in any vehicle since. Urine sometimes stops for a minute or so during micturition, but he has never had retention. No history of stone in his family. Is a native of Cork, but has lived in town nearly all his life.

Present State.—Is very thin, sallow, and depressed. Passes blood at times, but he is in the habit of slowly walking from twelve to twenty miles every day in the pursuit of his business. Suffers much pain when urinating, which act he can only accomplish when standing up. Sleeps pretty well, and has a good appetite. Urine only occasionally thick. Mr. Teevan then examined patient with a lithotrite, and found a stone so large as entirely to preclude litbotrity.

On October 8, at 3 p.m., the patient was put under chloroform by Mr. Lovell. A rectangular staff was then passed by Mr. Teevan, and given to Mr. Walter Coulson to hold. A very free external incision was made, commencing low down, and the bladder was well laid open by the internal cut. Mr. Teevan found that the wall of the bladder was firmly adherent

to the upper surface of the stone, and it required some force to separate them. When the stone had been grasped by the forceps and its extraction commenced, it was necessary to introduce a probe-pointed knife three successive times, in order to cut outwards and downwards, that the calculus might glide out without the slightest traction being exerted. Considerable bleeding took place during the operation, but it only lasted for a couple of minutes. The calculus was a phosphatic one, of oval shape, measuring no less than seven inches in its longer circumference, and six and a half inches in its shorter. The weight when removed was five ounces.

At 9 p.m. the same day the patient was very comfortable: pulse 85.

On October 9 the pulse had risen to 100. Tongue clean. Skin cool and moist.

October 15.—Patient doing very well. Appetite good. Sleeps well.

October 26.—Some urine flowed through penis to-day. Wound looks very healthy.

November 6.—Nearly all the water comes through the penis.

On December 6 patient left the Hospital at his own request, as he felt so well, and afterwards attended as an out-patient. Wound was not healed till nearly five months after the operation.

Remarks.—There were several points of interest in this case. The stone was adherent to the mucous membrane of the bladder, and there was a rough depression, about the size of a farthing, on the upper surface of the calculus, corresponding to the union of the opposed surfaces; but no harm seemed to follow their separation by the finger. Although the stone was so large, the patient was walking from twelve to twenty miles every day up to his admission, and there was but little pus or albumen present in his urine, and blood was rarely seen. It will be observed that no attempt was made to tear the stone out of the bladder—it was cut out by free incisions; and there was thus an entire absence of irritative fever, hypogastric tenderness, and secondary hæmorrhage.

HUTTEESINGH'S HOSPITAL, AHMEDABAD.

MYXOMATOUS CYST—LIGATURE OF THE TUMOUR.

(Under the care of A. S. G. JAYAKAR.)

M., a healthy-looking infant of about 8 months, was admitted into the Dispensary attached to this Hospital on March 2, 1871, with a cystic-looking growth situated about half an inch behind the anus, and just over the lower end of the coccyx. It was about the size of a medium-sized apple, firm, and rather hard above, and soft and cystic in its lower part. It was first observed as a small growth a few days after the child's birth, and then kept on increasing in size. There was some amount of pain on squeezing the tumour; but it was, indeed, so slight that its connexion with the spinal cord may have been fairly disputed. On exploring the lower part of the tumour with a grooved needle, a viscid, transparent, mucus-like substance escaped; it was sticky in its feel, and heat seemed to have no effect on it. The tumour was tapped, and about four ounces of the same sticky viscid fluid removed. When the fluid contents were removed, the nature of the harder and firmer part of the tumour rendered the diagnosis of the case easy. The lower bagging portion of the tumour soon filled up again, and she was admitted into the Hospital as an indoor patient on May 22. The tumour having rather an undefined base, no active Surgical interference was thought advisable, and a thick strong ligature was therefore passed through it, and tied on either side. Within twenty-four hours, the ligature seeming to give rise to convulsions, was loosened, and again an attempt was made gradually to tighten it, so that by the end of three weeks the tumour had mostly separated, and a few touches of the knife completed its final removal from the body, leaving a red granulating surface to heal gradually. The wound has now mostly healed up; there is still, however, a patch of the size of a shilling, but time and stimulant applications may fairly be expected to complete the cure.

Remarks.—Cases of myxomatous tumours are still very few on record—either owing to rarity of such growths, or their being easily mistaken for colloid and similar tumours of a malignant nature. The physical condition and general structure may often lead to a wrong diagnosis; but the total absence of any signs of malignancy, together with a microscopical examination of the contents of the growth, would soon decide the question as to its nature. The upper part of this tumour, or rather the undefined pedicle described in the case, was solid; and, on making a section, the same glairy viscid fluid as in the lower part oozed out. Under the microscope, it was found to be principally composed of fibro-cellular tissue, with fat cells and oil globules scattered in places, showing that already degenerative changes had commenced. The lower or cystic portion of the growth was divided into small compartments by bands of fibro-cellular tissue, extending in all directions, with vessels ramifying over the greater part of its inner surface. The viscid glairy fluid under the microscope presented numerous large rounded cells (some were oval), with thready branches shooting forth from all sides of the cells, and freely anastomosing with each other.

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Medical Times and Gazette.

SATURDAY, MARCH 16, 1872.

THE GENERAL MEDICAL COUNCIL.

We mentioned last week the bare fact that the Council had agreed, by a majority of one, to Dr. Acland's motion, "That a Committee be appointed to consider and report whether the General Medical Council has power to make rules for the special education of women, such as may entitle them to obtain a qualification to be certified by the Council. And that the Committee do further report for what purpose such qualifications, if any, should be granted, what are the most desirable means for educating, examining, and certifying in respect of them, with special reference to midwifery, the management of Medical institutions, dispensing, and nursing." We have tried, by the light of Dr. Acland's speech, to find some good reason for approving his motion and the Council's acceptance of it, but we confess that the more we consider the matter the more unwise and inexpedient does it seem. Dr. Acland says that his motion has nothing to do with the question, "whether or no women were entitled to be entered on the Medical Register as ordinary Medical Practitioners"—and of course we believe him, and we suppose, further, that he does not at all intend his Committee to go into the matter of the education of women as Medical Practitioners; but we are quite certain that outside the Council, and still more outside the Profession, it will be believed that the Medical Council has appointed a Committee to examine into the desirability and the best means of enabling women to qualify themselves to be entered on the Register of Medical Practitioners. The terms of the motion are quite vague enough and wide enough to excuse, if not to justify, such a belief; and, as Dr. Acland intended no such thing, it was unwise not to have worded the motion more exactly and guardedly. The title of the Medical Act is plain and simple

enough—it is "An Act to Regulate the Qualifications of Practitioners in Medicine and Surgery," and the preamble runs thus:—"Whereas it is expedient that persons requiring Medical aid should be enabled to distinguish qualified from unqualified Practitioners: Be it therefore enacted" so-and-so; and the first enactment is the appointment of a Council, "which shall be styled 'The General Council of Medical education and Registration of the United Kingdom.'" The functions of the Council seem to be very plainly set forth, and to appoint a Committee of that Body to formally consider whether or no it can undertake work which has nothing to do with qualified Practitioners, or with either the Medical education or registration of Practitioners, would appear to most people, we think, an unwise and unjustifiable waste of time.

Dr. Acland speaks, or appears to speak, as if persons were kept outside the province of the Council, and prevented from registration on account of their sex. We conceive that sex has nothing whatever to do with it, so far as the Medical Council and registration are concerned. There is certainly one woman on the Register now, and she is on it by right, as a duly qualified Medical Practitioner. By the same right any number of women who may present themselves as fully educated and qualified Practitioners will gain admission to the Register; and, in the same way as men, women who can prove they have gained a licence in midwifery recognised by the Act of 1868 will have a right to have the licence registered. But we do not know that any man is registered as a Licentiate in Midwifery alone; all, we suspect—certainly the vast majority—of those so registered have been educated as Medical men, and possess some other licence or diploma besides the licence in midwifery.

Further, Dr. Acland's motion sins in the very direction that he deprecates. He would have the Council institute a special register of duly trained and qualified nurses, dispensers, and managers of Medical institutions, but confines it to persons of one sex only. Why shut out men from this new province of the Council and this new Register on account of their sex? There are very many male nurses, "invalid attendants," and dispensers; why should not the Council "exercise some control over the qualifications and certificates" of these persons, as well as over those of women acting in the like capacities? If we are to believe the accounts that reach us from lunatic asylums, the male nurses and attendants would be none the worse for some training and some education, especially, for instance, with reference to the fragility of the ribs in certain conditions of ill-health. Again, how will Dr. Acland draw the line between dispensers—that is, makers-up of prescriptions—and druggists? Perhaps we may very safely leave him to settle that question with the "chemists and druggists," who are well able to take care of themselves. The Pharmaceutical Society would, we suspect, have very strong objections to the manufacture of a race of dispensers "registered by the General Medical Council"; while assuredly the public would be very apt to confound them with Medical Practitioners, and, seeing that they were registered by the General Council of Medical Education and Registration, would insist upon consulting them as to "what is good for" this and that disease. Could Dr. Acland's suggestion be carried out, it would throw an immense amount of additional work on the Council, which has already plenty to do; by stepping outside the strict province of the education and registration of the actual Medical Practitioner, it would be entering on a field to which it would be very difficult to place any limits; and it would most likely produce great confusion and mischief. We protest against it, therefore, in the interests of the public, of the Profession, and of the Council itself.

The rest of the acts of the Council during their Session have been all sufficiently recorded in the account we last week published of each day's work, and do not call for any remarks here. The one great object of the meeting of Council was the formation of a Conjoint Examining Board in each of the three divisions of the kingdom; and though no one scheme for the forming of such a Board for any division of the kingdom could be produced, and, of course, no such Board was formed, yet enough was done towards the establishment of the system to gratify and encourage those who believe in the plan as a highest good as regards examinations, and to perturb and discourage those who look upon it as a mistake or fear it as an evil.

A scheme which unites all the English Medical Authorities but two received the approval and sanction of the Council, and the two Bodies at present outside the scheme—the Society of Apothecaries and the University of London—are kept outside by legal difficulties, which they will earnestly endeavour to get removed; and, according to the statements of their representatives in the Council, we may expect that those endeavours will be successful. In Scotland the Medical Authorities do not appear to have any marked love for, or desire to adopt, the Conjoint Examining Board system; but out of deference to the wishes of the Council they have seriously considered the possibility of forming such a Board, and sent in to the Council various sets of resolutions on the subject.

The Authorities appear at present to consider that the formation of a Conjoint Examining Board should be confined to clinical examinations, "to test, clinically, the knowledge of Medicine, Surgery, and Midwifery possessed by the candidates for registration, as also their ability to practise the same;" while, in other respects, the examinations should be conducted as at present, supervised by the inspectors appointed by the General Medical Council"—no one, however, being "admitted on the Medical Register who had not passed the examination of the Board." This plan, it is to be observed, would not lessen the number of Examining Boards, which is one of the great objects of the Conjoint System, but would add to them a new and additional one. And it is to be remarked that, so far as we gather from the speeches of the Scotch members of the Council, even these resolutions in favour of the formation of a Clinical Conjoint Examination Board have not received the approval of the "ruling powers" of some, if they have of any, of the Scotch Licensing Bodies and it is certain that many of the most eminent men in Scotland very strongly disapprove of the Conjoint Examining Board Scheme. The Council, however, "hope" that Scotland will present by July next such a scheme as they may be able to sanction.

In Ireland the five Licensing Bodies joined in a Conference on the examination subject, each Authority sending to it three representatives. These gentlemen held sixteen meetings, and passed a series of resolutions which, carried out, would form a full and large scheme for a Board "for a Joint Examination in Medicine, Surgery, and Pharmacy." The scheme is, as was observed by the President of the Council, "actually more complete than the English scheme, because, in fact, it will include all the five Bodies in Ireland; and more comprehensive, because it includes proposals with regard to preliminary education as well as Professional education." But—and the "but" is a very important and significant one—the scheme has not yet been accepted by the Bodies represented at the Conference. The Apothecaries' Hall of Ireland is apparently the only Body that has fully approved of it. The Board of Trinity College "are disposed to give a general assent to the scheme," but "entertain a strong objection" to one of its clauses; the Royal College of Surgeons raises a pecuniary difficulty; and the Queen's University sends to the Council a very characteristic communication on the subject. The Senate desires it to be understood that, in sending their representatives to the Conference, "they were not thereby expressing any opinion on the principle of establishing a Joint Examining Board for each division of the United Kingdom, and their representatives were empowered only to report to the Senate the proceedings of the Conference";

and the opinion of the Senate on the scheme of the Conference cannot be considered very encouraging. The Senate is of opinion that "it would be useful to have one or more Examining Boards, before which all candidates desirous of having their names placed on the Medical Register of the United Kingdom should undergo a test examination, in addition to holding the degree or licence of a competent authority." But the Senate fears that, if such Board or Boards are formed by voluntary agreement, they would be liable at any time to be broken up by a repeal of the union by any one or more of the Bodies, and is of opinion, therefore, "that such Examining Board or Boards could be effectively established and maintained only by legislation"; and, further, "whenever a Bill may be introduced into the Legislature proposing to deal with Medical reform," the Senate "will give its attention to the subject, and will be ready to co-operate with the other Universities and Colleges in promoting the attainment of a satisfactory measure." Considering how the Queen's University has resisted the "moral suasion" of the Council with regard to some of its proceedings, and, when the Council talked of compulsory measures, "stood with folded arms, fixed and immovable, and with lips barely apart, said, in the words of Shakespeare, 'Come on!'"—remembering this, the last part of the message of that University is simply delicious.

The Council, however, hope that Ireland as well as Scotland will have a satisfactory scheme ready by July. And we think the Council were wise in allowing time to work for them, and in rejecting Dr. Parkes's rather threatening motion, which we noticed last week; for, seeing the difficulties the English Medical Authorities have met with, and the imperfectness of their scheme as at present formed, there was not a little appositeness in Sir Dominic Corrigan's humorous remark that "Dr. Humphry's and Dr. Parkes's taking upon themselves to lecture the Irish and Scottish Bodies reminded him of the fable of the old crab teaching the young crab to walk straight, and the young crab's reply: 'Mother, would it not be well if you would set us the example.' Let the old English crabs set us the example of straight walking before they presume to lecture the young Irish and Scottish crabs."

As to the rest of the deeds of the Council, we will only observe that they directed "the Executive Committee to obtain premises where the meetings of the Council can be held, and the general business carried on with comfort and convenience"; and, that the statement of income and expenditure of the Council was satisfactory, showing a balance in favour of income for the year 1871 of nearly £900. We observe that an application from Messrs. Bell and Thorpe, "for remuneration for extra work in connexion with the investigation into the accuracy of the Register," was referred to the Executive Committee. We venture to hope that it will meet with a favourable response, as these gentlemen have always shown themselves highly courteous and obliging, as well as efficient clerks to the Council.

THE TICHBORNE CASE.

We had intended giving a commentary on the Medical points in this case, but really, after the unprecedented duration of the trial and daily publication of the evidence, there has come a sort of lull. Curiosity is satiated for the present; "the Tichborne case" falls flat on the public ear, and we shall reduce our comments to the shortest possible space.

The first point that strikes the Medical annalist is the surprising circumstance that an illiterate slaughterman from Wagga-Wagga should be sent over from Australia on the pretext that he was the long-lost heir to the name, rank, and estates of one of the oldest families in England. The next wonder is that any people should have believed in him; but here it must be said that if there were no dupes, there could be no impostors. Of the dupes in the present case, some believed in the Wagga-Wagga butcher because his story was wonderful; others said that his conduct was so extraordinary and inconsistent that if he were not really Sir Roger he never could have dared to come forward as he did. The more evidence, therefore, there was against the Claimant, the more they believed in him. Others were not so much dupes as vehicles of private spite or religious animosity. There are some people who can derive satisfaction from the annoyance which this litigation has inflicted on an ancient and honourable family; and others—persons of some weight—who have publicly declared that the opposition to the "Claimant's" undoubted title was all the work of Popish priests or Jesuitical conspirators!

The Claimant attempted to prove his identity with Roger Charles Tichborne, who was lost in the *Bella* in 1853. Now, identity is of two kinds—mental and bodily.

The only instance we know of an attempt to establish identity of mind simply is that of Pythagoras, when he asserted that his soul was the same as that of Euphorbus, the son of Panthous, and, by way of proof, selected his own shield, as it hung in the temple of Juno near Mycenæ—

> "—— clypeo Trojana refixo
> Tempora testatus, nihil ultra
> Nervos atque cutem morti concesserat atræ."

In these days of spiritualism we are sometimes asked to believe that the spirits of great and good men deceased make use of vulgar charlatans as *mediums* through whom they communicate certain messages to this world by means of *rappings*; but it seems to us easier to believe in spiritualism than to believe that Roger Tichborne should so far lose his mental identity as, after his alleged escape from the wreck of the *Bella*, and his being put on shore at Melbourne, to forget father, mother, relatives, and one dearer than all these put together; that he should forget his station in life, his balance at a banker's, and all his previous tastes and habits; that he should live the life of a hired groom, jockey, butcher, horse-dealer, and horse-thief; that he should abide contentedly amongst a criminal or half-criminal class of the coarsest description, and should marry a woman who is said neither to read nor to write; and then, at last, should be moved to return home, and to make known his existence to those who had mourned him as dead, neither by affection for his widowed mother, nor by the promptings of love, nor the honourable desire to fill his proper place in society, but by the instigations of an attorney, or of an agent who traded in the recovery of "missing friends"! On his return, does he seek out his family, challenge recognition, and fly to the arms of friends only too willing to receive him? No; he skulks down to Wapping to inquire after the Ortons, and secludes himself at Gravesend. When unearthed, his French had vanished, he spoke Wappingese instead of English—"cousing" for cousin, "I never done it," "I never were tattooed," and the like—and, for a climax, makes a brutal attack on the honour of a virtuous and estimable woman, whom, if his story were true, it would have been an act of purposeless villany to have deserted and betrayed. "*Nemo repente fuit turpissimus.*"

Bodily identity may be established by the hair, eyes, features, and general stature and conformation, or by special and accidental marks, such as scars and traces of injury or disease. So far as the photographs in the shops are to be relied on, there is no resemblance in hair, eyes, or ears. Roger Tichborne's face is long and feeblish, that of the "Claimant" square, and full of penetration and energy. As for the accidental marks, Roger Tichborne is said to have had many—including a scar on the head from a fall on the rocks at Pornic, the mark of an issue on the left arm, of a wound from a fishhook in one eyelid, of bleedings in the arm and ankle, and above all a regular tattooing of his initials and certain devices on the forearm. On the Medical evidence relating to these marks we shall preserve a respectful silence, further than to notice that common Medical evidence often agrees on the

facts but disagrees as to their interpretation. But the uncommon Medical evidence in the Tichborne case was dubious as to the very facts—such as the position of certain scars, whether on the right ankle or the left, whether eyelid or eyebrow, etc.

As the matter stands, the Claimant has shown himself possessed of prodigious astuteness, cleverness, and staunchness; and, in accordance with a well-known law, very likely by this time implicitly believes his own story. Various careers have been sketched for his possible future. We would venture, in all humility, to suggest that talent of so high a forensic order ought not to be wasted, and that a very little preparation would enable the Claimant to qualify himself for practice at the Old Bailey, where from being a client he might become a colleague of "Brother Ballantine." The firm of Baxter and Norton could show their faith in him by sending him briefs.

THE WEEK.

TOPICS OF THE DAY.

The health of the Prince of Wales is steadily improving. The Paris telegrams announce that he was sufficiently well to attend the Gymnase Theatre on Tuesday, and afterwards to entertain the Duc d'Aumale at supper. He left Paris on Wednesday, and was to be in Rome on Saturday, the 16th. We announced last week that Dr. Vivian Poore had been selected to accompany the Prince as his travelling Medical attendant, and he is now in the Prince's suite.

We learn from the Twenty-seventh Annual Report of the Enclosure of Waste Lands Commission that there are now eight millions of uncultivated acres in England and Wales. Of these, three millions are in lowland districts, and a large part of them might be brought under cultivation. To do this requires only the sanction of the Legislature and the aid of the Government. Considering the indisputable evidence which has now been collected that the increase of urban and manufacturing populations is directly injurious to race-development; that agriculture, as it was the first, so it is the healthiest, occupation for man; that the accumulation of great masses of the people in large towns is almost necessarily accompanied by an increase of pauperism; and that the feeding of the great bulk of the nation from foreign sources mainly is at the best an artificial expedient, liable to serious disturbance in times of political change, and greatly dependent on the development of the mineral and other resources of foreign countries, and on the progress of scientific discoveries,—it requires no argument to show that it is the duty of the Legislature to give the greatest development to the food-producing capabilities of the country. If Sir Robert Walpole's aphorism be true that the man is a true patriot who makes two blades of grass grow where one grew before, our law-makers have a grand opportunity yet. The subject is one of sanitary as well as of political importance, and we commend it to the consideration of the Medical Department of the Privy Council.

There have been no matters of great Professional interest before Parliament during the past week. A question, indeed, was asked of Mr. Cardwell as to the duties to be performed by Militia Surgeons under the new Army Regulations. He was understood to say that their services would be required during the time that their regiments were called out, but that they would not be employed at other times in the examination of recruits.

The Association of Poor-law Medical Officers met at the Medical Club, Spring-gardens, on Tuesday last, for the purpose of discussing Mr. Stansfeld's Public Health Bill in relation to Medical Relief. Dr. Rogers presided. Amongst those present were Mr. Corrance, M.P., Mr. Charles Reed, M.P., Mr. A. Pell, M.P., Dr. Brady, M.P., and Dr. Lush, M.P. Mr. Corrance moved, and Mr. B. Baker seconded, the following resolution, which was carried unanimously:—

"That the Local Government Board Bill contains a partial recognition of the principles of local sanitary legislation which have been accepted by this Association, and although it fails, as at present constituted, to meet many great and urgent requirements, these are of a nature which may be remedied by amendments in committee. Under the circumstances the support of the Association may be safely given to the second reading of such a measure, and their future efforts be mainly directed to the general extension of its provisions to all suitable localities, and the independence and adequate remuneration of the sanitary and Medical officers appointed."

A committee was appointed to watch the progress of the measure through Parliament.

We are sorry to learn that a Hindoo gentleman, Mr. Lal Mitra, who has been studying Medicine in Edinburgh, and is a Member of the Edinburgh Royal College of Surgeons, has been taken to the Lambeth Workhouse in a state of insanity—it is said from over-work—and that it was reported to the guardians that, although he is possessed of large wealth in India, he has no means of procuring a passage out; that his passage-money will be sent over in June, but until that time he would have to remain in the workhouse. Surely the College to which he belongs, or some other Professional body, such as the Medical Benevolent Fund Committee, might take means to ascertain the truth of these representations, and to provide a suitable retreat for the unfortunate man.

At the Lincoln Assizes, on the 13th instant, a man named William Frederick Hovey was found guilty of the wilful murder of his wife, and was sentenced to death by Mr. Justice Quain. The convict is a person of respectable connexion, and he deliberately shot his wife in his father's house. The motive was jealousy, and the prisoner's counsel sought to reduce the crime to manslaughter by establishing the fact that the prisoner had been suffering from delirium tremens, and that he was of unsound mind from drink at the time of the commission of the crime. Mr. Justice Quain, however, would not allow the plea. He said that the plea of jealousy, the effects of drink, and the attack of delirium tremens formed no legal answer to the charge. It would seem from what he stated that the law does not recognise any unsoundness of mind from drinking as a bar to responsibility. He suggested that these circumstances, however, might be a sufficient reason for a recommendation to mercy on the part of the jury. The jury, however, returned a verdict, "Guilty of wilful murder," without acting on the judge's suggestion. We presume, nevertheless, that a patient suffering at the time from an undoubted attack of delirium tremens, although the result of drink, would not be held accountable for his acts. In this case the man had previously suffered from more than one attack of delirium tremens, and, according to his own account, had been drinking brandy for six weeks before the murder.

Dr. Quain's lectures on "Diseases of the Muscular Structure of the Heart" commence this day (Friday) at the Royal College of Physicians, at five o'clock. They have been looked forward to with considerable interest.

Institutions presumably established for the sake of charity pure and undefiled are just as apt to degenerate into nests of cabal and enmity as those that are set up as mere private speculations. The Orthopædic Hospital is a case in point. The Medical Staff and the Committee have, it seems, for some time been at loggerheads, and at last things have come to a climax. Mr. Tampliu and Mr. William Adams have withdrawn from the institution, and we think that a perusal of the report we publish in another column will prove that they had quite sufficient grounds for the course they have taken.

THE WATER-SUPPLY OF SOUTH LONDON.

Towards the close of last year the Association of Medical Officers of Health, at the instigation of one of their number, drew the attention of the Board of Trade to the reports of Dr. Frankland, published in the Registrar-General's Weekly Returns,

on the bad quality of the water supplied to the metropolis by certain companies south of the Thames, and, at the same time, they urged the Board to appoint an independent water analyst, in accordance with the provisions of the Metropolis Water Act (1871), in addition to the water examiner whom they understood had been appointed under the Act. In due time an answer was received, declining to accede to the request, and, indeed, implying that the appointment of a water examiner to supervise filtration rendered analysis unnecessary. It appears, however, that the Board perceived the necessity of some investigation of the turbid and alleged impure state of the Southwark and Lambeth Companies' waters; for the water examiner under the Act has recently presented a report on Thames water, and made recommendations which form an admirable commentary on the reply of the Board to the Association's request. The examiner reports that the companies referred to have for two months supplied imperfectly and hurriedly filtered water, but this through no fault or wilful negligence on their part. The cause was, he says, unavoidable, and due to extensions in the works going on at the time, coupled with river floods. He recommends that for the filtration of a given volume of water a minimum area of filter-bed should be compulsory, and that a standard of filtration should be fixed. Further, that suspicious or doubtful water should be analysed, and a standard of quality fixed. After this expressed opinion of one of their own officers, can the Board of Trade any longer refuse to grant the (as we conceive) reasonable request of the Association of Medical Officers? Already the Metropolis Water Act (1871) has been six months in force, and it is difficult to see what good has resulted from it. Better filtration was promised, but appears not to have been achieved; turbid and polluted water is not unfrequently supplied, and we seem to be as far off a constant supply as ever.

ACTION FOR NEGLIGENCE AGAINST A MEDICAL MAN.

At the assizes recently held at Winchester, before Mr. Baron Martin, the following case of Pope *v.* Maul, which was an action against a Surgeon for unskilful treatment of the plaintiff's son, a lad aged 18, involved some points of interest to the Medical Profession:—The son was, in October, 1870, suffering from a pain in the hip, and the defendant was called in by the father. In November the defendant recommended the patient's removal to the Infirmary. There Dr. Maul, who was one of the Surgeons of that institution, continued to attend him till December 19, when, at the patient's own request, he was removed again to his own house. From that time Dr. Maul did not attend, but the young man was treated as an out-patient, and Dr. Maul prescribed for him, the prescriptions being made up in the Infirmary. This continued till March, when a Mr. Pomery, who had formerly practised as a Medical man, was asked by a relative of the sufferer to go and see him. This he did, and found the patient suffering from an abscess in the hip. This was confirmed by two other Medical men who were also called in, and who, after the death of the patient, made a post-mortem, and found the hip-joint dislocated from the effects of the abscess, and the lungs diseased. The negligence alleged was that the defendant had treated the case as one of sciatica, and that he had not attended the deceased after his leaving the Infirmary. In support of this view, Mr. Pomery and the two other Medical gentlemen were called. The case for the defence was that the deceased suffered from inherited scrofula, which had produced both the lung disease and that of the hip-joint, and that the defendant had treated him for this complaint. It also appeared that the rules of the Infirmary do not permit an out-patient to be attended at his own house. The evidence of Dr. Bancroft and Dr. Ware, the other two Medical men, was quite consistent with this defence. Baron Martin expressed an opinion that the contract between the plaintiff and the defendant terminated when the deceased went into the Infirmary, and after he left the Infirmary it was doubtful whether there was a contract with anyone; but if such a contract was made at all, it was made with the son, and therefore this action could not be maintained by the father. The learned Judge declined to amend the pleadings, but stayed execution if the Court above should be of opinion that there was evidence to go to the jury, or that the amendment should have been made. Plaintiff nonsuited.

THE MEDICAL SOCIETY OF LONDON.

This Society held its ninety-ninth anniversary dinner on Friday last, the 8th instant, at Willis's Rooms, King-street, St. James's, Dr. Andrew Clark, F.R.C.P., President, in the chair. Among the visitors were Mr. George Busk, President of the Royal College of Surgeons; Mr. Curling, President of the Royal Medical and Chirurgical Society; and the President of the Obstetrical Society. The usual loyal toasts having been drank, the President gave the toast of the evening—"The Medical Society of London," coupling with it the name of Mr. Thomas Bryant, the President-elect. In a few remarks Dr. Clark referred to the prosperous state in which the Society was approaching its 100th year, when it would be found necessary to provide more ample accommodation for the increasing number of its Fellows. He then briefly reviewed the business of the past year, and, in proposing the health of his successor, he referred to the character of Mr. Bryant and the work he had done in his Profession, and expressed his confident belief that he would guide the Society with ability and judgment. The names of the Society's prizemen for the year were announced as follows:—*Fothergillian Gold Medallist:* Dr. Edwards-Crisp, for the best essay on "Croup." *Silver Medallists:* Dr. John C. Thorowgood, for special services rendered to the Society during his secretaryship; Dr. Silver, for his paper on "Mitral Stenosis."

At the election of office-bearers for the year, the following was the result of the ballot:—

President: Thomas Bryant, F.R.C.S. *Vice-Presidents:* J. L. W. Thudichum, M.D.; Sir Henry Thompson, F.R.C.S.; W. Cholmeley, M.D., F.R.C.P.; Francis Mason, F.R.C.S. *Treasurer:* John Gay, Esq., F.R.C.S. *Librarian:* Samuel Day-Goss, M.D. *Secretaries in Ordinary:* H. Royes Bell, F.R.C.S.; Alfred Wiltshire, M.D. *Secretary for Foreign Correspondence:* Arthur E. Sansom, M.D. *Orator:* Andrew Clark, M.D., F.R.C.P. *Council:* J. Wickham Barnes, F.R.C.S.; William Bloxam, M.D.; F. W. Braine, F.R.C.S.; T. C. Weeden Cooke; Richard Davy, F.R.C.S.; F. J. Gant, F.R.C.S.; William Gill; George Gregson; S. O. Habershon, M.D.; F. J. Lilley, M.D.; Thos. Franklin Lloyd; Jno. Macpherson, M.A., M.D.; P. Marshall, F.R.C.S.; C. F. Maunder, F.R.C.S.; Victor De Mérie, F.R.C.S.; R. P. Middlemist; J. T. Sabben, M.D.; E. Symes Thompson, M.D., F.R.C.P.; J. C. Thorowgood, M.D.; T. Harrington Tuke, M.D., F.R.C.P.

DR. MOUAT ON BENGAL PRISONS.

Dr. F. J. Mouat, late Inspector-General of Prisons, Lower Bengal, on the evening of Tuesday, February 20, read before the Statistical Society a most interesting and able paper "On Prison Discipline and Statistics in Lower Bengal." We regret that we are prevented by want of space from giving a full abstract of the paper. Dr. Mouat's remarks on the advantages of the conversion of prisons into schools of industry as a sound and safe middle course between the extremes of the two systems, of which one would render a prison a terror to evil-doers by the infliction of as much pain as can be endured without injury to health or risk to life, and the other by which physical pain as a cardinal element of correction is eliminated, and the prisoner is allowed to work his way to freedom and mitigation of sentence by mere good conduct in gaol, were most judicious. In the subsequent debate, the propriety of allowing gaol labour to compete with free labour was discussed, the balance of argument being in favour of the opinion

that the amount of this competition is so small that it should not be allowed to interfere with the benefits as respects both health and moral culture conferred by industrial training on the prisoners. Dr. Mouat had charge of all the prisons in Lower Bengal for fifteen years. Before they were put under his charge, the annual death-rate was 83 per 1000, of whom about 17 per 1000 died from cholera. In the last five years of his administration the death-rate varied from 105 per 1000 in 1866—an exceptional rate, in great part caused by the famine of that year—to 43 per 1000 in 1870: a very striking diminution, equivalent to an annual saving of between 600 and 700 lives, calculated on the mean deaths of a quarter of a century. Dr. Mouat may well remark that had he been instrumental in an equal amount of destruction of life in a military capacity, he might probably have been deemed deserving of some special mark of distinction from the Crown. He considers that a further diminution may yet be affected, and that a death-rate of 30 per 1000 would more correctly represent the amount of risk of life which a prisoner ought fairly to encounter. During the subsequent discussion, reference having been made to the assassination of Lord Mayo, Dr. Mouat had an opportunity of explaining that, beyond being concerned in the selection of the Andaman Islands as a penal settlement in 1868, he had nothing whatever to say to the discipline or management of the prisoners confined there.

DR. TRENCH ON THE TYPE OF SMALL-POX.

Dr. Trench's Annual Reports on the Health of Liverpool are always eagerly perused by the sanitary world for the sake of the copious array of facts and common-sense commentary which they present. In his Report for 1871, his remarks on Small-pox, on Irish Wakes, on Mortuaries, and on the method of Fumigating Rooms with Sulphur, and Disinfecting Clothes, are very interesting. We can afford room this week only for a few words on the small-pox. Dr. Trench's observations bear out those of Dr. Scrivener, and, in fact, of every writer on epidemics, on the increased virulence and extension given to contagious diseases by the movement of population, in such a manner as to submit any race to a new disease, or to a new variety of an old disease. Thus it seems that the special small-pox which devastated Liverpool in 1870-71, and destroyed 1909 lives in the latter year, was imported from Spain in the persons of two Spanish sailors, who came to Liverpool from Corunna with the disease upon them. During the earlier months of the epidemic, a large percentage of the victims of the disease and propagators of the contagion were persons connected with shipping. This small-pox was "a wave of special malignancy." Hæmorrhagic and confluent cases abounded, and primary vaccination in childhood failed to insure protection. In this, and probably in every similar case, universal revaccination of the whole population is the only safeguard. But meanwhile can nothing be done to root out the poverty, intemperance, and filth which characterise those populations in which epidemics are always most prone to spread?

HOSPITAL SUNDAY IN LIVERPOOL.

We learn from a correspondent that the total amount received from the Sunday collections in Liverpool this year amounted to £7302, and that from the Saturday boxes to £720. There was a balance in hand from last year of £140, and the expenses this year were £305. Of the above amount, £25 represented special donations to certain of the selected charities. The Committee were, therefore, enabled to distribute £7800, which was apportioned to fourteen Medical charities, as follows:—Royal Infirmary, £2418; Northern Hospital, £1209; Southern Hospital, £1053; Dispensaries (N. S. and E.), £858; District Nurses' Institution, £624; Ladies' Charity and Lying-in Hospital, £468; Children's Infirmary, £390; Eye and Ear Infirmary, £312; Homœopathic Dispensaries, £156; Consumption Hospital, £78; Stanley Hospital, £78; Cancer and Skin Hospital, £78; Skin Dispensary, £39; Dental Hospital, £39. Total, £7800.

A JURY OF MATRONS.

The relic of a semi-barbarous age—the institution called a jury of matrons—it is to be hoped will soon cease to exist. They afforded on a late occasion another example, added to many previous ones, of their perfect unfitness for the duties they are called upon to fulfil. It is preposterous to suppose that a dozen women, without any special fitness or education, can solve questions which sometimes puzzle the most acute and experienced obstetricians. Rachel Busby, who was sentenced to death at the last assizes at Oxford for the murder of her child, has just given birth to a stillborn infant at the county gaol. Twelve "matrons" were empanelled at the trial, but they found there was no ground for a respite, and but for the exertions of some philanthropic gentlemen at Oxford the convict would then have been executed.

A FRENCH FACTORY ACT.

"They manage *some* things better in France." Might we not follow the example of our neighbours in some of their regulations regarding factory labour? It is impossible to overestimate the evil effects on life and health of too early or too prolonged labour in the young. The Committee on Child Labour in French Manufactories has decided not to allow children under 10 years of age to work at all; between 12 and 13 only six hours per day. No nightwork will be permitted until after 15. Nightwork on the part of women and girls is strictly prohibited at any age.

A VACCINATION MARTYR.

"Example is better than precept." Acting upon this wholesome maxim, a Medical Practitioner stated during the progress of a case in the Court of Queen's Bench the other day, that he had been vaccinated 477 times. It was his practice to vaccinate himself when parents objected, to prove that there was no harm in it.

SMALL-POX JOTTINGS.

In the last fortnight there had been three deaths from small-pox in the City.——In the Holborn district during the last fortnight only 1 fresh case of small-pox was reported, and no death from the disease in the same period.——From the Cape of Good Hope we learn that the *Medway* arrived on January 24, and was put in quarantine, a case of small-pox having occurred on the voyage. The patient (one of the crew) died.——Thirty-two persons died from small-pox last week in the metropolis.——Small-pox is stated to be now declining in Norwich; it has carried off 350 persons in the city.——At Newmarket there have been no fresh cases lately. Vaccination is being rapidly carried on.——The Birmingham return of small-pox cases in the week ending the 2nd instant shows that the number of new cases was 42, being equal to those in the previous week. Of these 40 had been previously vaccinated, 1 not vaccinated and 1 not known. There were 67 cases in the Workhouse Infirmary, none at the General Hospital, and 9 at the Queen's Hospital. Cases recovered during the week, 53; deaths, 5; cases remaining on the books, 111; total number of cases reported, 962.——Both the cases of small-pox reported last week in the Bromsgrove Workhouse have ended fatally. There has been no further spread of the disease.——In the past three weeks there had been no deaths from small-pox in Chelsea, but there were several fresh cases. The Vestry have resolved to grant the Vaccination Officer the use of the large hall and anterooms one day per week as a vaccination station.——Three fresh cases of small-pox were reported last week in the Medical Relief Districts of Islington, as against four in the previous week.

There had been two deaths from the disease.——Eight fresh cases of small-pox were reported last week to the Kensington Board of Guardians, and one death.——Small-pox is now fairly on the decline in Aberdeen, very few cases having been admitted into the Hospital for the past fortnight. The past week's return shows—Total number of cases admitted into the Hospital since opening, 118; number of patients in Hospital, 35; total discharged recovered, 66; total dead, 17. The proportion of deaths is much smaller than in several of the larger towns. In Edinburgh, for instance, the proportion has been nearly one death in every six or seven cases.——The Town Council of Wakefield have decided to erect a Small-pox Hospital. One death from small-pox had occurred in Wakefield in the past fortnight, and four deaths in the workhouse of the Stanley district.——There were 24 deaths last week in Sheffield from small-pox; of these, 14 were returned as unvaccinated, 3 as vaccinated, and 7 were not stated. In the two previous weeks the fatal cases from the disease were 37 and 28.——Five deaths were reported during the past week from small-pox in the Poplar Union, and ten new cases had been brought under notice. In the same period twenty persons were vaccinated at the public station. Five cases of small-pox were under treatment in the North-street Infirmary. ——In the Walsall Union six deaths from the disease are reported during the past week. Since the outbreak of small-pox 31 cases have been treated in the workhouse—21 of them had been brought in from various parts of the union, and 10 arose within the house; of these, 12 had recovered and 5 had died, leaving 14 under treatment.——The returns last week in the Wolverhampton Union show for Wolverhampton 4 deaths from small-pox, 13 new cases, and 24 recovered; remaining under treatment 29, as compared with 44 the previous week. In the Bilston district, 2 deaths, 14 new cases, leaving 28 cases under treatment. In the Willenhall and Wednesfield district 2 deaths, 11 new cases; remaining 15. The total number of cases under treatment for the whole union was 72, as compared with 77 the week before.——Dr. Aldis reports four cases for the week ending Saturday, March 9; two were sent to the Hospital.

FROM ABROAD.—BROMIDE OF POTASSIUM IN EPILEPSY—A CONTRAST DURING A FRENCH CAMPAIGN.

THE distinguished psychologist, M. Legrand Du Saulle, of the Bicêtre, in a communication to the *Gazette des Hôpitaux* of February 20 and 23, furnishes an interesting review of the results of his employment of the bromide of potassium in 207 cases of epilepsy.

The bromide, he says, does not produce any mischievous effects, provided that it is of irreproachable chemical purity, and that its operation be attentively watched by the Practitioner—say, every fortnight. He has patients who have been taking from one to two drachms daily for a very long period without any ill-effect upon their health. Frontal cephalalgia, stuffing of the nares, lacrymation, gastric irritation, loss of strength, torpor of movement, acne, partial abolition of general sensibility, indifference, apathy, somnolence, intellectual obtuseness, stupor, inordinate appetite, constipation, and especially emaciation, have been justly indicated as consequences of its employment; but such effects have only been produced when the bromide has been of doubtful quality or has been ill-administered. If we place ourselves under favourable conditions for carrying on the experiment, we are not long in finding out that it may become as the daily bread of the patient, and so far from inducing emaciation, it rather favours the gain of flesh. It must, however, be well borne in mind that when, even with the purest salts, the daily dose of one drachm is approached, the reflex sensibility of the pharynx, base of the tongue, and epiglottis is considerably diminished or abolished, and that the genital desire is sensibly blunted. It is at about the same dose that acne commences, and it is an error to suppose that its intensity should influence the prognosis.

If the dose be too large at first, or too rapidly increased, bromism may be easily induced. M. Legrand commences with from twenty to thirty grains a day, and, according to the nature of the case, increases this by from seven to fifteen grains every fortnight or month—"mounting only slowly the steps of the therapeutical ladder." The ultimate daily quantity which he reaches oscillates between ninety and 135 grains, but to attain this from three to six months are required. In one case only was a maximum of 210 grains reached, but for this twenty-six months of treatment were required. While at least from sixty to seventy-five grains daily will be required for males before any efficacious therapeutical effect will have been attained, in young girls and women well-marked and sufficient action may be obtained by from forty-five to sixty-five grains.

In 207 cases in which he has used the bromide, the following results were obtained:—In seventeen, absolute suspension of all epileptic symptoms during from two to four years; in twenty-eight, absolute suspension from twelve to twenty-two months; in thirty-three, considerable amelioration, no epileptic attack having occurred from six to ten months; in nineteen, a relative amelioration, the remissions lasting from two to six months, and the various symptoms being much abated in severity; in 110, failure. This last item is rendered larger by the inclusion of patients that have been too short a time under observation to speak positively about, others who have been lost sight of during recent events, and others, again, for whom the medicine proved too dear to secure their perseverance with it. The proportion of cures is sensibly greater in private practice than in the Bicêtre or Salpétrière, most of these last presenting cerebral complications. In the unsuccessful cases, also, the bromide often abates much of the violence of the symptoms.

When an epileptic has passed a year without an attack, M. Legrand administers the bromide only on alternate days during the first half of the month, and every day during the second half; and, after eighteen months' suspension of the attacks, he gives it every third day during the first, and every day during the second half of the month. At the end of the second year it is given every fourth day during the first fortnight, and so on. He considers a rigid perseverance in this plan essential, and believes the usual plan of administering decreasing doses as improvement occurs a deplorable error. Relapse is sure to occur if any truce be thus given to this obstinate disease, the bromide being, as already said, as it were, the daily bread of the epileptic. Medical superintendence during its employment is always essential; and surreptitious augmentation of the dose, as sometimes practised by patients, may lead to aggravated symptoms. The acne which accompanies the use of the medicine is often very obstinate, and ignorance of its bromic nature has led to the useless employment of various agents. Great fetidity of breath attends the prolonged use of the bromide, and this is best met by taking it only a minute or two before meals, or receiving it as an enema twenty minutes before.

During the siege, M. Legrand, having had to treat, at Bicêtre, 1427 soldiers suffering from variola, found that in sleeplessness, and various nervous and ataxic complications, the bromide, given in daily quantities of from thirty to sixty grains, proved a most excellent remedy.

M. Beaunis, in his account of the adventures of his ambulance near Belfort during the Campaign of the East, published in the *Gazette Medicale*, describes a remarkable contrast which he met with:—

"During all this time passed at Pont-sur-l'Oignon we had many sick, and among them some from small-pox. I placed the former in the schoolroom, and the small-pox cases in an uninhabited wing of the old castle, in spite of the opposition of the mayor, who was one of its proprietors. The first day there being but a single small-pox patient, I was unwilling to take one of our few *infirmiers* to attend upon him. I was obliged, however, to do so, for throughout the village I could not find a single person, except the schoolmaster, who would

venture to enter even for a minute the room in which was the small-pox patient in order to carry him in fuel or give him his medicine. Rarely indeed have I ever met with such harshness, selfishness, and cowardice as in this village. The mayor and those he governed were one as bad as the other. He absolutely insisted that I should place the small-pox cases in the house which the schoolmaster and his aged mother inhabited, and on my decided refusal he turned all his rage on the schoolmaster, declaring that when the Prussians returned he should know how to deal with him. . . . .

"On January 12 I received a visit from the schoolmistress of Esprels, who, to my great astonishment, informed me that there were wounded still lying there—a fact of which neither the Mayor of Pont-sur-l'Oignon nor the military authorities, although aware of it, had informed me. I immediately went with her, and found a small ambulance perfectly well organised, the sick and wounded being tended by the ladies and girls of the village. What a difference to Pont-sur-l'Oignon! In a small room filled with small-pox cases, I found seated at a table, in a nurse's costume, a charming girl, only 15 years of age. She it was who, in the midst of all these men upon whose faces were seen all the phases of this horrible disease, nursed them, dressed their wounds, and gave them drink, breathing the pestiferous air; and all that without the slightest ostentation, but simply, and little suspecting that what she was doing was really sublime. Such sights as these console one for all the infamies and cowardice one is obliged to witness.

"Whence the difference between these two villages, so close to each other, and separated only by a river some feet in breadth? Why on one side of this was there devotion and self-sacrifice, and on the other selfishness and cowardice? Do they not belong to the same race? For my part, I see here the influence of a noble mind. Whether for evil or for good, it often suffices that some one shall set the example; the crowd, an oscillating mass, is influenced either for good or evil, and, possessed neither of initiative nor decision, follows the impulse imparted to it. Greatness is just as contagious as baseness. The schoolmistress of Esprels, still young, of an active and vivacious nature, impassioned for the beautiful and good, a little finical perhaps, but possessing remarkable intelligence and a thoroughly feminine delicacy, seems to me to have been the soul and organiser of this good work. What a contrast with the Mayor of Pont-sur-l'Oignon!

"They will never be known, all these obscure sacrifices among the insignificant, the weak, and the unknown, which are all the more noble as they are disinterested, and have no other motives than compassion and charity. It has been especially among school teachers that I have met with them. In all the villages which we have traversed we have met with, among these, the most absolute devotedness, and the most enlightened and sincere patriotism. Whenever we wanted something for our sick and wounded, and whenever the interests of the soldiers were in question, we were able with every confidence to address ourselves to them. I cannot say as much for the village mayors, who—with some exceptions but the blind instruments of the Empire—were finished types of selfishness, poltroonery, and platitude. Insolent to the French, and grovelling to the Germans, they were possessed of but one idea—saving their purses and their skins. As to patriotism, honour, or charity, they would hear nothing."

MEDICAL SOCIETY OF LONDON.

At a well-attended meeting of this Society on Monday evening last, Mr. Thomas Bryant, the newly-elected President, delivered a short introductory address, in which he truthfully and adroitly sketched the influence the Society had exercised upon Professional opinion from its foundation to the present time, and the relation which it has borne and still bears to the other younger and more "specialistic" societies.

Afterwards a very interesting discussion was raised on a specimen shown by Mr. Maunder, as to the value or expediency of trephining for abscess of the brain consequent upon disease of the internal ear.

This was followed by the exhibition of some preparations of aneurism, and some propositions as to the treatment of this disease by the President, as follows:—

1. From the pathological evidence we possess it appears that for the cure of a sacculated aneurism its mechanical closure by a clot is all that is required. The typical laminated clot only takes place when the cure is chronic; it is in no way to be considered as an essential part of the cure, although to a degree most clots are laminated.

2. From pathological evidence before us it likewise seems probable that the coagulation of the blood in an aneurismal sac may be obtained by obstruction either to the afferent or efferent vessel; that distal as well as proximal pressure are both capable of producing the same result.

3. Accepting the facts as proved, that obstruction to the afferent vessel may be secured by forced flexion of an extremity as well as by digital or instrumental pressure, clinical evidence is wanting to determine the conditions under which these forms of practice may be expected to succeed separately or combined.

4. Accepting the fact, likewise, that all aneurisms of the extremities cannot be successfully treated by forced flexion and compression of the afferent artery, it is desirable to know under what circumstances such a plan of treatment is inapplicable.

5. Acknowledging also the great principle of practice which most Surgeons now accept, that no large vessel should be ligatured for aneurism unless the treatment by compression in one of its forms has failed or is inapplicable, it is desirable to know under what circumstances the treatment by ligature should be primarily applied.

6. Complete obstruction to the afferent vessel appears to be the more rapid mode of cure than the incomplete.

7. Digital pressure to cover the artery and mechanical pressure by a weight to save muscular force seems to be the best mode of applying pressure when it can be carried out.

8. Mechanical pressure should only be had recourse to when digital cannot be employed, the elastic pressure being probably its best form.

9. When the afferent vessel cannot be occluded by Surgical means, there is reason to believe that the same coagulation in an aneurism may be secured by the occlusion of the efferent, either by pressure, ligature, or other means.

10. The tubular or fusiform aneurisms are probably cured only by some inflammatory action in the walls of the dilated vessel, the fibrinous secretion being probably of the plastic kind, bearing a certain analogy to the adhesive process in other parts, as pointed out by Luke (*Med. Times and Gaz.*, 1845). But this subject is not one upon which I propose to raise a discussion.

Mr. Bryant stated that his object was to draw the opinion of Surgeons upon several very important particulars in the treatment of aneurism. He produced for inspection some interesting and typical specimens of the kinds of clot formed in aneurismal sacs. Prominent amongst these was an aneurism of the abdominal aorta, close to the cœliac axis, in which he had applied pressure on the distal side, with a large non-laminated clot as the result. Another, also from the museum of Guy's, was a well-marked laminated clot, removed from the sac of an axillary aneurism, twelve years after the ligation of the subclavian by the late Mr. Key. This specimen Mr. Bryant stated had been copied into many books as a typical illustration of the mode of formation of the clot in the process curative of aneurism. But this was a slowly formed plug, and it should not be inferred from such as it that all clots must be, or are, similar in their appearance or construction. Each one of the propositions above given was prefaced by some remarks from the President, and in reference to proposition 5, Mr. Bryant stated it was his opinion that in all quickly occurring, especially traumatic, aneurisms the ligature should be employed primarily. Finally, the author referred to the statistics of Guy's Hospital for the fourteen years preceding 1870, which show that the ligature has been employed twenty-four times with only one death, and pressure has been used seventeen times with eleven successes; in the other six cases ligation had to be resorted to. The discussion which followed was taken part in by Mr. H. Smith, Mr. Gay, Mr. De Méric, and Mr. Maunder; and at the suggestion of Mr. Davy and Mr. Gay the discussion on the subject is to be resumed at the next meeting of the Society.

Statistics of Amputations.—Those of our readers who are interested in this subject will find a valuable document contributed as an appendix to the *Boston Medical and Surgical Journal* for January 4, 1871. This gives the statistics of 699 major amputations of the limbs which have been performed at the Massachusetts General Hospital.

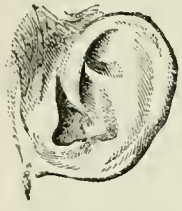
PROF. LAYCOCK ON EARS:

LOBED AND LOBELESS EARS; MONKEY EARS; ROGER TICHBORNE'S AND "THE CLAIMANT'S" EARS.

In the *Medical Times and Gazette* for March 22, 1862, appears a lecture by Professor Laycock on the coexistence of weakness or defective organisation of the brain, with certain peculiarities of formation of the face, and especially of the parts answering to the "ribs" of the cranial vertebræ. For instance, congenital defect of brain and tendency to tubercular or other tissue-degeneration are so often associated with a defective and receding chin that artists and novelists, when they wish to describe a person of unusual strength of character, are sure to give him a well-developed square-cut chin. An upper jaw contracted from side to side, with a very narrow and highly arched palate; the "rabbit jaws," with upper teeth projecting so that they cannot be covered by the lips; peg-like deformity of the upper lateral incisors; imperfect development of the upper lip, going so far as hare lip and cleft palate; and noses, either snubbed and turned up, showing the cavities of the nostrils, or preternaturally big and sausage-like, as in the Aztecs,—are all familiar examples.

But we wish to recall attention especially to Professor Laycock's remarks on the ears, for they refer by anticipation to the difference between the ears of Roger Tichborne and those of the "Claimant" who is now awaiting his trial for perjury.

"The form," says Professor Laycock, "of the external ear depends upon two fundamental elements—namely, first, the cartilage with its muscles; secondly, the helix and lobule. In man the cartilage of the perfect ear is comprised within an ellipse or ellipsoid proportionate to the head, and to this is attached a geometrically-formed helix and a pendent ellipsoid lobule. In proportion as these parts are defective, or as the ear is monstrous, triangular, square, or of irregular form, it indicates a tendency to cerebral degeneration or defect. Monstrous ears, with defective helix or lobules, are very



Square lobeless ear in case of dementia.

Ear of chimpanzee. (British Museum.)

common in idiots and imbeciles. You will note the defective form and absence of lobule in the female Aztec and in the case of dementia. The ear of the male Aztec cretin is also defective, but it more nearly resembles the ear of the chimpanzee.

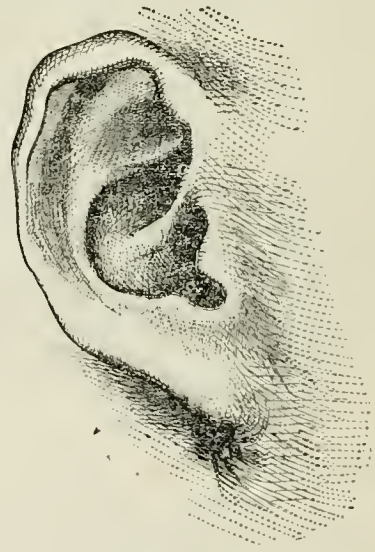
"*Angle of Position of the Ear.*—You will find that the ears of persons differ much as to the angle of position on the head. The ear points either backwards towards the vertex of the head, as in the chimpanzee, or upwards to the crown. Ears pointing backwards are usually defective in form and development of parts, as the helix or lobule.

"*Modifications of the Helix and Lobule.—Race* has, I think, an influence on the development of the external ear, although I speak with reserve, not having had numerous opportunities for observing and comparing. But, so far as I have had them, I conclude that the ear in coloured races more nearly approximates that of the chimpanzee than in our Anglo-Saxon race, in which the helix is full and the lobule large and pendent as compared with men of the darker races that I have seen, whether African or Malay. *Sex* has certainly an influence, for it appears to me that women generally have not only the whole ear smaller than men, but the helix and lobule smaller in proportion to the ear. And I think I may venture to say, as the result of numerous examinations of the ears of female lunatics and imbeciles, that from one-third to one-fourth are below the standard of development as to the lobule. *In men somewhat feminine in form, and comparatively defective in force of character, the ears are often feminine as to the helix and lobule.* You may have such men manifesting great refinement and sensibility, and perhaps considerable intellectual power; but, at the same time, even with marks of genius, there is often seen less capability of endurance mentally, less force of character, less tenacity of purpose, and even less clearness of ideas than in standard men.

"Men of high intellectual attainments, great capacity for mental labour, and great force of character, have a full, perfectly ovoid ear, the helix well developed, the lobule plump, pendent, and unattached to the cheek at its anterior margin. These characteristics are seen in all the portraits of great men which Lavater gives, and are easily observed in living celebrities. I was much struck with the highly characteristic ear in these respects of the Prince Consort, as he stood without his hat when laying the foundation-stone of our Industrial Museum in October.

"Activity of the instincts and appetites, and perhaps of vegetative or nutrient force in general, seems also to coincide with a well-developed lobule. It is worthy of remembrance that these parts are not constituted wholly of cartilage; the helix is cartilage covered with a layer of condensed cellular and adipose tissue, but the lobule is made up wholly of such a layer, without any cartilage whatever. This layer and the skin covering it are highly vascular. Now, in proportion as the helix is simply cartilaginous and the lobule defective, or, in other words, as this vascular elastic tissue is wanting, you seem to have imperfect encephalic action and development. And with certain reservations, the plumpness and vascularity of the lobules may be considered to coincide with extent of vascular activity within the encephalon. I say within the encephalon, because I am satisfied we must not restrict our consideration of the question to intellectual activity alone, for that implies only activity of a certain kind. You may have great volitional activity, as in the day labourer, or great sensual activity as in the sensualist, who seeks only the indulgence of his appetites, whether sexual or others. But it is further to be noted that this vascular activity may be wholly local and due to exclusively local causes, as constant exposure to the atmosphere.

"*Defective and Adherent Lobule.*—In a perfect ear the ovoid lobule hangs from the cartilage with a rounded lower margin, which at its inner border is not confluent with the face. Now, if this inner margin be adherent to the cheek, and at



Ear in general paralysis. Lobule soldered anteriorly and cut away posteriorly, helix defective. (Clinic of Mental Diseases.)

the same time the lobule be only a segment of an ellipse, there is more or less tendency to imperfect cerebral action. A more important form is seen when the lobe is not only soldered to the cheek, but its posterior half cut away, as it were, and the helix defective."

The significance of Professor Laycock's remarks is obvious. Roger Tichborne had a soldered and ill-developed lobule. This was quite consistent with his whole character and person—overbred, not well developed, and undersized. On the other hand, the well-developed lobule of the Wagga-Wagga slaughterman seem consistent with his audacity, strength of purpose, and power of will. That one condition can be changed into the other we hold to be incredible.

THE PUBLIC HEALTH BILL.

Though not, of course, dealing with the whole of the questions which every sanitary reformer would wish to see energetically disposed of, the Government Bill to amend the law relating to the Public Health forms a very valuable instalment. Leaving to other hands, or to a future time, the consolidation of sanitary law, Mr. Stansfeld, in this Bill, cuts at the root of a vast number of those evils which the Royal Sanitary Commission pointed out for remedy.

The Bill is in ninety clauses, and extends only to England, exclusive, with certain exceptions, of the metropolis. It provides for the division of the country into urban and rural sanitary districts which are to be subject to the jurisdiction of urban and rural sanitary authorities. The following are to be, with certain exceptions, the urban districts and authorities respectively:—

Urban Sanitary District.	Urban Sanitary Authority.
Borough constituted such either before or after the passing of this Act.	The Council.
Elective Improvement Act district, constituted such before the passing of this Act, and having no part of its area situate within a borough or local government district.	The Improvement Commissioners.
Local government district, constituted such either before or after the passing of this Act, having no part of its area situate within a borough, and not coincident in area with a borough or Elective Improvement Act district.	The Local Board.

The urban sanitary authority is to be invested with powers under the Local Government Acts, Sewage Utilisation Acts, Nuisances Removal Acts, Common Lodging-houses Acts, Diseases Prevention Act, Artisans and Labourers' Dwellings Act, Bakehouse Regulation Act, and amending Acts; Baths and Washhouses Act and Labouring Classes' Lodging-houses Acts, if already in force. If not in force the two latter Acts may be adopted by the urban sanitary authority.

Subject to certain exceptions, the area of a rural Poor-law union is to form a rural sanitary district, and the guardians of the union to be the rural sanitary authority.

To the rural sanitary authority are to be transferred powers under the Sewage Utilisation Acts, Nuisances Removal Acts, Common Lodging-houses Acts, Diseases Prevention Act, Bakehouse Regulation Act, and amending Acts.

Within three months from the passing of the Act each urban sanitary authority is to appoint a Medical Officer of Health, and every rural sanitary authority is to appoint, but not within any specified time, one or more Medical Officers of Health, inspectors of nuisances, and such other officers and servants as the authority may deem necessary. In respect of Medical Officers of Health, the Local Government Board are to have the same powers as they now have with regard to officers of unions; so that it will rest with that Board whether the Officers of Health shall or shall not enjoy permanency of appointment.

Any Poor-law District Medical Officer may be appointed a Medical Officer of Health, either urban or rural.

The powers of Local Government Board inspectors are to be similar to those of Poor-law inspectors.

Seaport sanitary authorities are to be formed, either permanently or temporarily, by an order of the Local Government Board from amongst authorities having jurisdiction in or near the port, and the expenses of the port sanitary authority are to be borne by the riparian sanitary authorities.

The Local Government Board may, after local inquiry, issue provisional orders for the consolidation of areas and of local authorities, and may apply urban sanitary provisions to rural districts. This latter is an important provision, as meeting the cases of mushroom towns springing up around newly developed industries—towns having in an aggravated form many of the evils of cities, without, at present, the machinery for combating these evils.

For the prevention of pollution of streams, procuring a common supply of water, carrying out a system of sewerage, or for other purposes of the Sanitary Acts, the Local Government Board may, after inquiry and notice, form several sanitary districts into a united district, governed by a joint incorporated board, and the individual districts so united are then to lose their powers in respect of the purposes for which the joint board is formed.

The above are the principal provisions of the Bill so far as they relate to authorities, areas, and officers. They appear to provide satisfactorily for a termination of the existing confusion in respect of the two first. With respect to the last, it seems advisable that in committee such alterations should be introduced as will render it imperative upon rural sanitary authorities to appoint Medical Officers of Health within a limited time. That much in the interest of the country at large. The interests of the Profession seem to demand that there should be sought from the President of the Local Government Board a pledge that the Board will confer upon Medical Officers of Health, whether appointed by urban or rural sanitary authorities, the same tenure of appointment as that bestowed upon Poor-law Medical Officers in compliance with the recommendations of Select Committees. Without permanency of tenure there can be no independent discharge of duty. Medical members in Parliament should see to this.

The portion of the Bill which defines and deals with Nuisances must inevitably meet with considerable opposition in the House; unless, indeed, the present excited state of public feeling in regard to sanitary matters should forbid members to care for their own interests as manufacturers, whilst compelling them to discharge faithfully their duties as trustees for the nation. These provisions of the Bill are very stringent, and spread a net that should take offenders of all sizes; the wording is careful and evidently intended to admit of the passage of no "coaches and six"—*e.g.*, every person allowing "the solid refuse of any manufactories, or any rubbish, cinders, or other solid matter" to fall into a stream in such quantities as to interfere with its due flow, or to pollute its waters, is to be deemed guilty of a nuisance punishable in penalties of five pounds, ten pounds, and twenty pounds for first, second, and third convictions, and with further daily penalties for continuance. Any person to be subject to like penalties who allows any solid or liquid sewage matter, or any filthy or noxious water, or washing of manufactories, or other *polluting liquid* to fall into any stream. For the purposes of the Act, the following liquids are to be deemed *polluting*:—

"1. Any liquid containing in suspension more than three parts by weight of dry mineral matter, or one part by weight of dry organic matter, in 100,000 parts by weight of the liquid; or,

"2. Any liquid containing in solution more than two parts by weight of organic carbon, or ·03 by weight of organic nitrogen, in 100,000 parts by weight of the liquid; or,

"3. Any liquid which exhibits by daylight a distinct colour when a stratum of it one inch deep is placed in a white porcelain or earthenware vessel; or,

"4. Any liquid which contains in solution, in 100,000 parts by weight, more than two parts by weight of any metal except calcium, magnesium, potassium, and sodium; or,

"5. Any liquid which, in 100,000 parts by weight, contains, whether in solution or suspension, in chemical combination or otherwise, more than ·05 part by weight of metallic arsenic; or,

"6. Any liquid which, after acidification with sulphuric acid, contains, in 100,000 parts by weight, more than one part by weight of free chlorine; or,

"7. Any liquid which contains, in 100,000 parts by weight, more than one part by weight of sulphur, in the condition either of sulphuretted hydrogen or of a soluble sulphuret; or,

"8. Any liquid possessing an acidity greater than that which is produced by adding two parts by weight of real muriatic acid to 1000 parts by weight of distilled water; or,

"9. Any liquid possessing an alkalinity greater than that produced by adding one part by weight of dry caustic soda to 1000 parts by weight of distilled water."

Then, in strong contrast with the mildly permissive clauses of past Acts, comes the concluding phrase of the section which deals with these nuisances—"It shall be the duty of every sanitary authority to enforce within its district the provisions of this section."

The sanitary authority is distinctly authorised to take legal proceedings with respect to the pollution of streams, and to spend moneys for removing or diminishing the effect of any pollution.

Sewer ventilation has taken lately so large a share of public attention that we give in full the clause dealing with the question:—

"All sewers and drains, whether public or private, shall be

constructed, provided with means of ventilation, and kept so as to effectually prevent such sewers and drains from being dangerous to health; and any sewer or drain not so constructed, ventilated, or kept shall be deemed to be a nuisance under the Nuisances Removal Acts, and, whether it be on public or private premises, may be dealt with under the said Nuisances Removal Acts, as if it were on private premises."

It is to be the duty of every urban sanitary authority to properly cleanse streets,—(Pity that the Bill does not apply to the metropolis!)—to remove house-refuse, and empty earth-closets, privies, ash-pits, and cesspools; and on the failure, after notice, of any authority to fulfil duties of this kind, the occupier in respect of whose premises the default arises *may* sue for a penalty of ten shillings for each day during which the neglect continues. The *auri sacra fames* probably renders it unnecessary to make this last provision more than permissive.

Power of entry upon private premises, for the purposes of inspecting drains, water-closets, privies, cesspools, and ash-pits, is to be given to officers of sanitary authorities; and not only so, but any occupier may require an inspection. This latter should prove a valuable provision in cases where the occupier is suffering by reason of the neglect of the owner; but it can only be really operative if the officer holds his office upon such terms as will enable him fearlessly to execute his duty as against the owner—a man, in most cases, of more local influence than the occupier.

The second section of the Nuisances Removal Act of 1863 is to extend to milk and to tea, and all milk of any animal suffering from contagious, infectious, or tubercular disease is to be deemed unwholesome and unfit for the food of man.

As to unwholesome food, the following should prove effective if carried; but its passing seems very doubtful. Numbers will be found to suggest that its enactment would be an unfair check upon "legitimate competition," and to recommend a reliance upon the time-honoured maxim, *Caveat emptor*:—

"If any animal, carcase, meat, poultry, game, fish, fruit, vegetables, corn, bread, flour, milk, or tea which has been sold to a purchaser as human food, is proved to the satisfaction of any two justices to have been so diseased, unsound, or unwholesome as to be unfit for the food of man when so sold as aforesaid, the person who has sold the same shall, on conviction by such justices, be liable to a penalty not exceeding twenty pounds, and such justices may, if they think fit so to do, order the purchase money to be refunded."

The next clause provides for search by the officers of a sanitary authority for any articles of the above kind which may be diseased, unsound, or unwholesome, with a view to such articles being seized, carried away, and dealt with according to law.

The penalty imposed by the first section of the Food Adulteration Act in respect of the adulteration of food or drink it is proposed to increase from five pounds to twenty pounds.

Provision is made for the closing, on the application of a sanitary authority, of any foul pump or well, and for prohibiting the habitation of any unfit building.

This concludes the more important of the provisions of the Bill in respect to nuisances. We shall have more to say hereafter on the parts relating to water-supply, gas-supply, Hospitals and provisions for the sick, etc. Meanwhile, it is but fair to state that, whatever may be the fate of the Bill, or the degree of completeness with which, if carried, its provisions may be worked out, there can be but one opinion as to the earnestness of its framers. It does away with much that is bewildering in the machinery for enforcing existing enactments; it deals with many evils hitherto untouched; and, even if it do no more, should be of service in clearing the ground for a consolidation of sanitary law. The one great blot is the exception of the metropolis from its provisions. But it cannot be doubted that, should the Local Government Board deserve well of the country by enforcing sanitary authorities in general to work thoroughly the provisions of this Bill, power will hereafter be given to that Board to deal in like manner with the metropolis.

ROYAL ORTHOPÆDIC HOSPITAL.

The annual Court of Governors was held on Wednesday, March 13, at the Hospital, Oxford-street, to receive the annual report and balance-sheet, and on general business. The chair was taken by the Right Hon. Lord Abinger, Vice-President. The Court was subsequently made special, and passed a resolution that the Medical staff of the Hospital shall consist of three Surgeons and three Assistant-Surgeons, instead of two Surgeons and two Assistant-Surgeons, as formerly. A proposition that when an Assistant-Surgeon has performed his duties uninterruptedly for twenty years he shall be appointed full Surgeon without being subjected to the usual form of election was also passed by a large majority.

The annual report was read, and followed by a discussion of the warmest kind, several of its statements regarding the Surgeons of the Hospital giving rise to earnest contention, and ultimately to their resignation. These statements were—firstly, that Dr. Murchison was called to examine the Hospital because its Surgeons would not take the responsibility of declaring what was necessary to render it perfectly healthy and efficient after the outbreak and subsidence of scarlatina; secondly, that at the inquest held on the child Henry Bard, who died of diphtheria last year, Dr. Bourne and Mr. Adams sought to cast the blame of the death on the Committee; and thirdly, that the Surgeons of the Hospital failed to give the Committee the co-operation to be expected in seeking the welfare of the institution.

Mr. Money Wigram moved the adoption of the report.

Mr. R. W. Tamplin, F.R.C.S., one of the Surgeons, said: Before this report is accepted, it should be pointed out in what way we have not co-operated with the Committee, as stated in the report. There have been occasions on which we could not co-operate with the Committee, and I could show the reason why. At all events, I am not aware that we have ever refused to co-operate in the interest of this Hospital with the Committee.

Mr. Wm. Adams, F.R.C.S., said: I would direct attention to three paragraphs, at least so far as I could catch them, in the report. I heard that in reference to the sanitary condition of the Hospital Dr. Murchison was consulted because the two Surgeons declined the responsibility of advising what was necessary to be done. If this is stated in the report, then it is totally opposed to all that I know of the facts. Dr. Murchison happens to be a personal friend of my own, and, seeing the very grave nature of this outbreak, I was only too glad to ask him what steps he would advise the Hospital to take; and I did so with the sanction of the Committee and the Hospital. I saw Dr. Murchison yesterday (March 12), and he said that he perfectly recollected the circumstance of coming as a personal friend of my own in consultation with me to see a child. This is totally opposed to the statement which I have just heard from the Secretary. Now, gentlemen, I never declined any responsibility; you never knew a Surgeon decline responsibility—he has responsibility day and night, therefore I have no more to say on that head. The next paragraph ran in this way—that the coroner's inquest on the child Henry Bard was held at the private request of a single Surgeon, with the apparent object of relieving the Surgical staff from the blame of the late sad events in the Hospital. Gentlemen, this is horrible language—observations that no Medical officer could sit under—and one only wants to know whether it is true or not. Now, I am not going to occupy your time with details of the coroner's inquest. I say with regret that the poor patient who died was one of my own; but I was in the country for my holiday. I came back on the day of the inquest. I was not summoned to attend it. I attended at great personal inconvenience; but that that inquest was to be held I heard with regret. This inquest afforded an opportunity for party feeling to break out. Dr. Bourne assured me, in answer to questions put by me as to why the inquest was held, that it was only in defence of his own personal character against the aspersions of the Committee. He felt bound as a Medical man to clear himself. I asked him how his character had been attacked, and he said by observations on his treatment of the child. But this child died of diphtheria on the fourth day, and because he had not given it beef-tea his treatment was impugned. It is not a question of beef-tea, but a question as to the intensity of the poison. Moreover, it had been said that the child had not been prescribed for; but Dr. Bourne had attended to that child every hour day and night for the three days of its illness. The Prince of Wales during his illness never received more attention than this child—I am glad to state it—for it would be a sad thing for the country to know that that child had died of starvation. The verdict of the inquest did not damage this institution—it was the second verdict of the Committee; and for that I leave you to say who is responsible. All must deplore that so valuable an institution should be damaged in the public estimation and in the estimation of the governors, by whatever it was that called for the

second inquiry. Now, gentlemen, in another paragraph it is stated that the Committee of Management have not received that co-operation and support which they are entitled to from the Surgeons of the Hospital. I can only regret that the Committee have inserted that paragraph. I have been for twenty years a Surgeon to this Hospital, and I think I have in every instance worked cordially and well. I have thought only of the good of the Hospital. Dr. Murchison will tell you the time we spent in drawing up these rules for its benefit in his own room. I beg, then, to vote against the report, as containing incorrect statements, unfair and uncourteous to the Surgeons of this Hospital, and hope that the governors will not receive the report containing such statements.

The Chairman then moved that, before any discussion should take place at all on so vexatious a question, the report be adopted wanting the three offensive statements referred to by Mr. Adams.

The Rev. Mr. Wright seconded this proposal; but

Mr. Money Wigram insisted on vindicating the Committee's conduct and the adoption of the report as it stood, replying at length to the statements of Mr. Adams.

Mr. Henry Walker, one of the vice-presidents, said that the Committee of Management had only under a sense of duty laid a faithful report before the Governors as to the state of the Hospital. The impediments they had met with and the opposition shown to them by the Surgeons had greatly increased the difficulty of management.

It was then put to the vote whether his Lordship's amendment should be adopted, or the report as it stood. For the amendment, 33; for the report as it stands, 50.

Mr. Tamplin then rose and resigned his position as Surgeon to the Hospital; and Mr. Adams followed his example, saying that, if he had stood in Dr. Bourne's position, he should have said and done all that Dr. Bourne had said and done. Both gentlemen then left the room amid great excitement.

Amongst other business, Mr. George Dawbarn proposed that the resignations of the Surgeons be not accepted.

Professor Bentley, the Rev. Stanley Leathes, and the Chairman retired from the Committee.

Mr. Cooper proposed an infusion of new members; but Mr. Shaen thought such a proposal altogether humiliating to the governors of the charity. This was not a case that had cropped up suddenly, but was a grievance of long standing.

Messrs. Broadhurst and Hill were reappointed Assistant-Surgeons to the Hospital.

A vote of thanks to the Chairman terminated the proceedings.

REVIEWS.

Memoranda on Poisons. By the late Thomas Hawkes Tanner, M.D., F.L.S. Third and Completely Revised Edition. London: Renshaw. 1872.

This edition of Tanner's "Memoranda on Poisons" is in some respects almost a new book. The former editions were intended chiefly for the Medical Practitioner. Dr. Tanner appears to have been a believer in the frequency of the crime of secret poisoning, and he compiled his "Memoranda" "to put the Physician on his guard, and prevent his attributing to natural disease symptoms due to the villanous administration of deadly drugs." The present editor seems, however, to have thought that the book would be of more use if it contained a tolerably full notice of the chemistry of toxicology as well as of its symptomatology, and accordingly has introduced a sufficient account of the toxicological tests, and of the method of separating poisons from organic mixtures. That he has thereby improved the book there can be no doubt; it is, in fact, now become a useful hand-book for the student. The scientific precision of chemistry is that alone which has raised modern toxicology above the superstition of the middle ages. We are not of those who believe that secret poisoning is a frequent crime amongst English people, but if it were, there is scarcely a poison the effects of which can be distinguished from those of natural disease with any certainty without the aid of the test-tube. A new classification of poisons, however, is the chief novelty in the book. The editor divides poisons into—corrosives; simple irritants, mineral, vegetable, and animal; irritant gases; specific irritants, mineral, vegetable, and animal; neurotics—subdivided into narcotics, anæsthetics, inebriants, delirants, convulsives, hyposthenisants, depressants, asphyxiants—and abortives. Opium and its preparations, and morphia, constitute the group of narcotics; anæsthetics include chloroform, chloral, bichloride of methylene, ether, amylene, and nitrous oxide. Alcohol, nitro-benzole, cocculus indicus, and fungi form the group of inebriants. Delirants comprehend hyoscyamus, belladonna, stramonium, datura alba, and nightshade; convulsives—nux vomica, strychnia, and brucia; hyposthenisants—aconite and prussic acid; depressants—digitalis, Calabar bean, tobacco, and hemlock; and asphyxiants—noxious gases. This classification is certainly an improvement on the old unscientific and untrue one of "Irritants, Narcotics, and Narcotico-Irritants." We can give hearty commendation to this new edition of a well-known little hand-book. Its preparation reflects considerable credit on the editor.

The Urine and its Derangements, with the Application of Physiological Chemistry to the Diagnosis and Treatment of Constitutional as well as Local Diseases. By George Harley, M.D., F.R.S., etc.; formerly Professor in University College and Physician to University College Hospital. London: J. and A. Churchill. Pp. 376.

Those of our readers who may remember these lectures as they appeared in our columns—now a good long time ago—will, we think, join with us in an expression of regret that they have not sooner seen the light in a connected form. This is the more to be regretted on the author's account, inasmuch as the good work he has done is apt at this time of day to be overlooked; for since the first of these lectures appeared in our columns the world has not stood still, and many things which were then new have now become part and parcel of the public stock of knowledge—and so what was really new then does not seem to be new now.

Nevertheless, the book having appeared we are prepared to give it a hearty welcome, and, whilst not agreeing with it in every particular, we are constrained to pronounce it one of the most suggestive books of the kind ever published. It consists of eleven lectures: the first is an answer to the question "What is urine?" To this the author replies—"The effete products of our thoughts, feelings, and actions, together with those of the various functions of animal life." To this definition we take objection, not for what some may carp at—the taking note of the effete products of thought, etc.—but rather because it does not recognise the much greater importance of another waste product—viz., that excreted by the lungs; for, in accordance with more modern philosophy, we recognise the combustion of carbon as being the main origin of the force expended in the body; the conversion of nitrogenous matter into urine being altogether secondary to the other.

Dr. Harley divides all urines into two groups, solid and fluid. Well, this is a good practical grouping; but inasmuch as the main object of urine is the excretion of nitrogenous waste, it is perhaps better to classify urines according as the bulk of this appears in the shape of urea, hippuric acid, or uric acid.

Chapter II. deals with some of the changes in the composition of the urine induced by food, drink, medicine, and disease, and about it there is not a great deal to be said. Chapter III. introduces us to the study of the separate constituents of urine—first dealing with urea, its chemistry, physiology, and pathology. Here we first encounter a peculiarity which some may consider a blemish and some an advantage—in short, it is one on which a difference of opinion is allowable. Dr. Harley gives us the formula for urea thus: $C_2H_4N_2O_2$—whereas, to the best of our knowledge, there is not a chemical school in London where urea is not represented by some form or modification of the symbols CH_4N_2O. We have here the difficulty of deciding between the old notation and the new. Inasmuch as the book is intended for men already in practice, perhaps Dr. Harley's adhesion to the old notation is an advantage for them; nevertheless, it is free for those who care to say so that the plan is antiquated. For our own part, we are prepared to accept the doctrine of convenience. Another doctrine laid down by the writer—viz., "that urea is not the special product of any one particular time or organ, but the united product of all nitrogenised matter"—is, we think, accurate. Dr. Harley points out—wisely, we think—that the increase of urea so often noted in diabetes is partly due to the animal diet. That is worth bearing in mind; but it is a fact, nevertheless, that with ordinary diet the urea is greatly in excess of health. We wish Dr. Harley had said something more on the subject of uræmia; to our mind its phenomena are far from clear, nor will a separation of uræmia from ammonæmia do all that is desired.

Uric acid furnishes the topic of the next chapter. The author's plan for estimating the acid is wise; he avoids volumetric methods, which as yet are exceedingly unsatisfactory, and

advises precipitation and weighing. He mentions, but hardly lays sufficient stress upon, the entire absence of uric acid from the urine of some carnivora. He also, we think, does well to point out that the precipitation of uric acid in ordinary samples of urine by no means depends on its abundance in the system, but rather on some such side-cause as increase of acid or diminution in water. Dr. Harley advocates the view that uric acid is the direct cause of gout; this, though the current belief, we can with difficulty accept. At all events, Dr. Harley's remarks on the pathology of uric acid are well worth reading.

Hippuric acid and chloride of sodium constitute the subject of Lecture V. Of the former there is not much to be said. The author does not point out, however, that this acid seems to be a compound of glycocol and benzoic acid when the latter is given internally. When dealing with chloride of sodium, the author points out, in opposition to Scherer, that it has nothing to do with the colour of the blood. Our present knowledge of hæmoglobin quite confirms that belief.

Lecture VI., however, deals with Dr. Harley's chosen subject—viz., urohæmatin; in the study of this subject he has really done good service. We hold with Dr. Harley that urine contains a pigment derivable from, and not very greatly different from, hæmatin. Bilirubin, the red colouring matter of the bile, is by a goodly number of physiologists accepted as identical with hæmatoidin of old blood-clots; and very recently Maly has announced the possibility of transforming bilirubin into urohæmatin. If, therefore, bilirubin is derived with little change from hæmoglobin, it is fair to admit that urohæmatin originates from the same source. But Dr. Harley freely admits the presence of indigo or indican in many samples of urine. Surely some of the instances given in these pages of urohæmatin indicated by acid, and unobserved before, are really cases where indigo was unusually abundant.

In Lecture VII. the phosphates are considered. Dr. Harley admits the increase of phosphates in certain nervous diseases, but of course takes care to distinguish this from the apparent increase of phosphates in certain diseases accompanied by alkaline urine. The excess of phosphates in the urine in rickets Dr. Harley proposes to neutralise by the giving of bone-earth internally. In connexion with this subject it may be said that Dr. Harley insists on the formation of renal calculi being due to a local causation. This we are hardly prepared to admit; nevertheless the argument is interesting.

The next lecture is devoted to a consideration of oxalates and sulphates. Dr. Harley points out (as we think, well) that it is possible to mistake oxalates for uric acid or phosphates—only carelessness could lead to such a mistake; but we have known the same cause lead to confounding small oxalate crystals with blood corpuscles. By the way, we do not observe any reference to one of the most characteristic shapes of oxalate crystals—viz., the star. This is best seen in crystals manufactured in urine, as is also the star shape of phosphates. Dr. Harley is, we think, right in looking upon oxalates as a normal urinary constituent. By standing for a time most urines will throw down some oxalates along with their so-called mucus. With regard to sulphates we cannot agree with Dr. Harley that they are derived from food. We strongly believe that just as glycin goes to form hippuric acid, so does taurin to form sulphuric acid. Sulphates are excretory products as much as urea is.

The ninth lecture deals with such substances as inosite, creatin, creatinin, cholesterin, cystin, xanthin, leucin, and tyrosin—very interesting, but perhaps more curious than useful in daily pratice.

Not so the succeeding lectures, on diabetes and albuminuria respectively. These lectures were, however, republished some years ago, and so do not come to the mass of the Profession for the first time, as do the others just alluded to.

As to diabetes, the author recognises two forms—that from defective assimilation and that from excessive formation—the two calling for different lines of treatment. The distinction may be somewhat doubtful in certain cases; nevertheless, it does good, if only to warn us against a routine treatment.

In the last lecture—that on albuminuria—there is a very long table giving the various causes producing albumen in the urine. This is, without entirely concurring with the arrangement, a good plan. Of late our ideas of albuminuria have been too much limited to that form which originates in the kidney, and we have even seen albuminuria and Bright's disease used synonymously, which is certainly the reverse of accurate. But, both in this chapter and in the foregoing, we find much food for discussion, for Dr. Harley, if not at all times convincing, is certainly very suggestive. We have only been able to give a superficial view of his treatise, but we have said enough to indicate to our readers its general tenor. To those not in possession of the original lectures we can recommend the book as giving a very good view of urinary physiology; and even those who may have read the original lectures will find in the present issue a good deal that is new and important.

NEW BOOKS, WITH SHORT CRITIQUES.

The Origin of Species by means of Natural Selection; or, the Preservation of Favoured Races in the Struggle for Life. By Charles Darwin, Esq., M.A., F.R.S., etc. Sixth Edition, with additions. London: Murray. 1872. Pp. 460.

*** Twelve years ago the origin of species was a mystery and a superstition. Common people believed what is told in Gesner's "Death of Abel," where the creation of animals is described as taking place just below the surface of the earth, which was raised into heaps, out of which the fully formed animals walked, as a mole does out of a molehill. The origin of new species was therefore regarded as a rare, occasional, preternatural act, requiring a special fiat of Omnipotence. Species were regarded as having been cast as it were in certain moulds framed by the Divine Intelligence, and limited in form and variety by narrow bounds which could not be passed. A respectable writer, Mr. Gosse, in his work entitled "Omphalos," believed that adult animals were created with navels and all other marks of quasi-fœtal development, and that full-grown trees were created with the marks on their stems as of leaves which had fallen off. The only loophole for doubt was the perplexing fact, that with regard to the most vigorous and prolific plants—as Salix, Rosa, Rubus—it was almost impossible to agree in the amount of distinctive marks which should be held *specific*, as contrasted with the lesser amount of change which might be called *variety*. But now what a change! The doctrine of evolution, which some naturalists twenty years back would have considered a wicked absurdity, is calmly admired for the grand and comprehensive views it gives of Creation; and its establishment as a matter of popular belief is due to the author of the book before us. The laws of organic nature, he says, include Growth with Reproduction, Inheritance, "Variability from the direct and indirect action of the conditions of Life, and from use and disuse; a Ratio of Increase so high as to lead to a Struggle for Life, and as a consequence to Natural Selection, entailing Divergence of Character, and the Extinction of less improved forms." The present edition discusses at length the principal objections raised against the sufficiency of Natural Selection and the accumulation of minute variations, and the validity of the theory upheld by Owen and Mivart of sudden and occasional variations of considerable amount, proceeding according to fixed law. This after all is but a secondary and subsidiary subject; the one step is the doctrine of evolution, which once established, the precise details must be left to be settled by the gradual accumulation of facts.

On the Therapeutical Importance of Recent Views of the Nature and Structure of Cancer. By Henry Arnott, F.R.C.S., Assistant-Surgeon to St. Thomas's Hospital, etc. (Reprinted from St. Thomas's Hospital Reports, Vol. II.) 1872. Pp. 28.

*** Mr. Arnott, being a Surgeon, and an *alumnus* of the Middlesex Hospital, naturally takes up the idea that cancer is at first a local disease, and that if thoroughly and early extirpated before there has been time for the diffusion of cells, the patient may be saved. On behalf of this view it must be admitted that it is hopeful, and allows of something being done. Thus a cancer may be compared to a thistle in a cornfield. If thoroughly eradicated before it has flowered, there is an end of it: but if allowed to go on till its ripe feathery seeds are wafted about by the wind, or if merely cut down, so that portions of its root are left to spring up again, the whole cornfield may in time be covered with young thistles. To make this similitude perfect, we need to have it explained how the original thistle came into the cornfield, and how the first spot of cancer came to be deposited in the living body. It is very well to say that it is at first purely *local*; but the word "local" is a trap, and capable of half-a-dozen meanings. Peculiarities of form and of chemical composition are hereditary, and, as they come from variations of one germ-cell, must be constitutional. Cancer seems to be hereditary, as any other bodily or mental peculiarity may be; and it is mere begging the question to call it "merely local," until we know what is meant by "local." But this is no argument against the "therapeutical importance," which Mr. Arnott shows, of a treatment that offers some hope over a treatment which offers none.

St. Thomas's Hospital Statistical Report—Surgical. By F. Churchill, F.R.C.S.

*** This Report differs from those previously issued by this and other Hospitals in several important particulars. An endeavour has been made to supply the statistician with a "hand-guide" to the different diseases, so that he may be saved the labour of wading through a farrago of uninteresting tables and may be able to find the information he requires condensed upon one page. The statistical reports published at some of our Hospitals of late years have been needlessly expanded; the main feature, or at least the predominating element, appears to have been a succession of blank columns and black lines, wearisome to the eye and very confusing. In this Report blank spaces have been avoided as far as possible. The five tables have been condensed and so arranged that the statistics of any disease may be seen at a glance instead of compelling the statistician to pass on to a different part of the Report for each tabular item. Some idea may be obtained of the great saving of space effected by this arrangement by referring to the *disease* column, where the name of the disease, instead of being repeated three or four times, only occurs once. The Standard Nomenclature has been turned to account and found very useful. By printing the indices of disease and putting them in bold figures much space is saved, and the eye may travel across the page for further information without embarrassment. By the habitual use of the Standard Nomenclature these figures may in course of time be understood to represent "constant qualities," by which the name of the disease is identified or represented. By placing the "sex" column first, the column for "totals" is not required—the numbers, being for the most part in units, may be easily calculated. Some very condensed information is supplied in the column for remarks, but this is supplemented by the summary at the end. The Standard Nomenclature has in a few instances been found wanting, of which are subjoined some specimens selected from the Report. Under No. 787 there is "Spinal weakness;" under No. 812 "Inflamed bursa patella; under No. 1103 "Compound fractures of humerus," and "Arm torn off." Similar additions follow after fracture of thigh- and leg-bones. Burns are also separated from scalds.

The wording of the special tables is abrupt but systematic, as they were intended, we believe, for a tabular arrangement, but altered to save expense.

GENERAL CORRESPONDENCE.

ON INFLAMMATION OF THE UTERUS AS A BAR TO IMPREGNATION.

Letter from Dr. G. G. Bantock.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the discussion which followed the paper read by Dr. Phillips at the last meeting of the Obstetrical Society, and reported in the *Medical Times and Gazette* of the 2nd instant, Dr. Tilt threw out the suggestion that chronic inflammation of the womb might have existed in some of the cases recorded, and had been the cause of the abortions. I took occasion to express my conviction that inflammation of the womb was an effectual bar to the occurrence of impregnation. Dr. Barnes expressed his dissent from my views, and stated that "women frequently conceive while under treatment for this affection," though in the preceding sentence he limits himself to "inflammation of the cervix uteri." It will be observed, on reading the report, that Dr. Tilt distinctly spoke of inflammation of the womb in its chronic form, and that my words were "inflammation of the uterus," by which I meant either acute or chronic. If Dr. Barnes meant something else, there is an end of the matter; but I conceive that one of Dr. Barnes's practice in writing and speaking would not commit such an error as this in discussion, and I must be allowed the supposition that he meant the same thing.

Now, I have the greatest respect for anything which falls from the lips or pen of Dr. Barnes—a feeling which I believe to be shared by a large number of the Profession—and I would not, without good reason, enter the lists with him; but I challenge him to produce the particulars of a single case in which he has witnessed the occurrence of impregnation of an inflamed uterus. I will not admit that so-called inflammations of the cervix are cases of inflammation at all. These are really congestions of the mucous membrane covering the cervix and lining the os, and they leave the body of the uterus unaffected. It is no argument against my views that "women frequently conceive while under treatment for this affection," for it may be assumed—and it is in accordance with my own experience—that the disease had first been cured, and that impregnation had followed as a consequence. Moreover, I would not, with the evidence before me of impregnation during the existence of cancer of the cervix uteri in its various forms, have stated that inflammation of the cervix uteri—if I had believed in such a condition—was an effectual bar to impregnation. In these cases it is well known that the body of the uterus is not affected in the early condition.

All authors on the diseases of women with whose writings I am acquainted speak of sterility as one of the results of inflammation of the uterus, whether acute or chronic; and I have never seen anything to the contrary, though I would not for this reason be supposed to deny such an occurrence.

I have so late as to-day seen a case of well-marked vaginitis—redness, swelling, tenderness, copious muco-purulent discharge—which, according to the history, preceded and is now concurrent with pregnancy; but in this case the os was found to be perfectly healthy and closed.

Dr. Barnes further observed, with reference to Dr. Tilt's remarks, that it was "hardly possible to find a pure case of retroflexion." If by this he means that there hardly exists a case of retroflexion without inflammation of the uterus, I am entirely at variance with him. If by it he means congestion, which is not inflammation, but a condition of passive distension of the venous system from pressure, I am equally in accord with him.

I adhere, then, to my original statement, that inflammation of the uterus, whether acute or chronic, is an effectual bar to the occurrence of impregnation, and I believe the voice of the Profession will be in my favour. I am, &c.,

George Granville Bantock, M.D.,
Physician to the Samaritan Free Hospital.

44, Cornwall-road, Westbourne-park, W., March 5.

POOR-LAW MEDICAL OFFICERS OF HEALTH.

Letter from Dr. Joseph Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—A full report of the proceedings at the conference on Poor-law Medical Relief, on the 5th, and at the deputation to Mr. Stansfeld, on the 13th ult., having been forwarded to our members during the last few days, I have received from all parts of the country a large number of letters. In these the writers express their objection to the proposition of the Royal Sanitary Commission, which, if adopted, would constitute them the sole Medical Officers of Health of their respective districts.

The enclosed copy of a resolution adopted at a meeting of the Medical Officers of the Cardiff Union places the matter in so clear a light that I believe you would be doing us a service if you find space for it in your columns. I am, &c.,

Dean-street, March 5. Joseph Rogers.

At a meeting of the Medical Officers of the Cardiff Union, held on the 27th of February last, it was unanimously agreed that—

"We are most strongly of opinion that the recommendation of the Sanitary Commission that district Poor-law Medical officers be sole sanitary officers would be impracticable, as private practice would seriously interfere with the necessary independence. We believe the greatest efficiency would be obtained by charging them with the duty of reporting to a superior officer, independent of practice, who might preside over a wide area, and accept the responsibility of taking action for the removal of reported nuisances. Further, if this higher office were made open to the deputy officers who might prove their fitness for it, we think it would be a valuable stimulus to the thorough discharge of the duties of the subordinate post.

"John Lewellyn. | "Edward Bates.
"R. Lougher. | "F. W. Grandee.
"Alfred Sheen, M.D. | "John Evans.
"James Milward. | "David Edgar Jones."

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY'S COUNCIL.

[To the Editor of the Medical Times and Gazette.]

Sir,—An observation of yours in last number respecting the principle of selecting officers and members of Council of this

Society cannot fail to challenge remark. You say, "It does not appear that any gentleman who contributes to the *Transactions* or the practical working of the Society is overlooked." A little study of the list of Fellows will quickly satisfy anyone that contributions to the *Transactions* or to the practical working of the Society have not hitherto been considered to be a claim to selection to take part in its government. The list contains unmerous names of contributors who have never been on the Council; and also numerous names of men who have never contributed a paper or a scientific idea thought worthy of being printed in the *Transactions* who have been put on the Council.

I am, &c.,

March 6. Omnia sine Labore.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

March 1.

At no period within the memory of the present generation has the death-rate of Liverpool been so low as it was last week. The number of deaths was 110 below the weekly average of the last ten years, and 155 below the average of the corresponding week of the same period. The mere fact of thirteen out of the eighteen large towns from which returns are made having a higher mortality than this, is so unprecedented as to deserve to be put on record. This exceptional condition is the result, no doubt, of the concurrence of several causes, among the more prominent of which are the mildness of the weather, which permits doors and windows to be thrown open and many of our black holes to be at least partially ventilated; the continued rains, which flush out the sewers; and the abundant demand for labour, which keeps away want, one of the ablest coadjutors of disease. Any or all of these causes might suddenly cease to operate, and then our death-rate would surely rise.

For some years past the increasing numbers of students entering at the Royal Infirmary School of Medicine have called for the provision of greater accommodation, and year by year additions and alterations of a most useful kind have been carried into effect. The time has now come, however, when, in the opinion of the managers of the School, an undertaking of a more extensive nature than any contemplated since its formation must be set on foot, and it is proposed shortly to commence such a series of changes as shall nearly double the present accommodation, and give additional usefulness to an institution which is one of the very first of its kind in the provinces.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Friday, March 1.

T. B. Curling, F.R.S., President, in the Chair.

Annual Meeting.

The President opened the meeting at 8 p.m. He declared the ballot open, and nominated Dr. Samuel Jones Gee and Dr. William Johnston as scrutineers.

The Treasurer's account of the income and expenditure of the Society for the year 1871, with the auditors' report, was then read. The total ordinary income from subscriptions and other fees, sale of *Transactions*, payments of other societies, and interest was £1477 5s. 3d., and the ordinary expenditure £1046 3s. 7d. The extraordinary expenditure was very large, owing to the cost of the new reading-room and other alterations in the Society's premises, etc., but this had been met by the sale of £1000 stock and the balance remaining from the previous year, leaving a current balance of £496 5s. 5d.

The report having been read, Mr. Charles Hawkins, after some objections to the form of the report, moved its adoption.

Mr. Webster seconded the motion. He was glad to hear of such important additions to the library, but sorry to hear of the deaths of so many Fellows.

The report of the President and Council was next read.

This report referred also to the above particulars, and stated that 23 new Fellows had been elected, 16 being resident and 7 non-resident, and 24 Fellows had died, 3 of them being honorary, 9 resident, and 12 non-resident, leaving the present total number of Fellows, honorary, resident, and non-resident, at 658. The report mentioned that the new reading-room would be open in the course of the session, and that the delay in opening had been caused by the dampness of the walls, which had hindered the completion of the bookcases, etc. A new arrangement of the busts was contemplated on pedestals, instead of the double rows on brackets on the columns, as heretofore. The back room on the first floor, now connected by a new staircase with the vestibule of the meeting-room, would become an integral part of the library, and it was recommended by the Council that the Society for the Relief of the Widows and Orphans of Medical Men, which till now had had exclusive possession of this room, should in future have it only on occasion of their meetings, and that this and the entire occupation of the small room now used by their secretary should be allowed them rent-free. The Council also recommended that the Society should undertake the administration and management of the "Marshall Hall Memorial Fund," for which application had been made to them by the Committee.

The report relative to the library stated that 361 works had been added (not inclusive of journals, etc.), of which 189 were purchased and 172 presented. There had also been a donation from Sir Trevor Lawrence of above 300 tracts on anatomy, physiology, and Medicine, from the library of the late Sir William Lawrence. The report also referred to the large amount of book-space which had been gained by the alterations, giving additional shelf-room for about 27,000 volumes, which would not only allow of the library being increased to double its present size (covering any prospective increase for the next thirty years), but would permit of great improvements being made in the general arrangement of the whole library.

Mr. Henry Lee moved that the report of the President and Council be received and adopted.

The motion was seconded by Dr. Cholmeley.

Mr. Hawkins praised the liberality of the Society in giving up the rent received from the Society for the Relief of the Widows and Orphans of Medical Men. He thought the alteration of the time of meeting from afternoon to evening had not been followed by good results. He also suggested that now they had got new premises it would be a good plan to give an annual reception. He had long wished to see a bust of their lady patron the Queen worthy of the Society in the place of honour in their rooms.

Dr. Pitman then moved a formal vote as to giving up the rent of the Widows and Orphans Society.

This was seconded by Mr. Hawkins.

Dr. Gee next moved that the Society receive the Marshall Hall Memorial Fund, and award the simple interest accruing from it once every five years to the author of the best work in English on the nervous system.

Mr. Cooper Forster seconded the motion.

Mr. T. Smith explained, with regard to the fund, that there was to be no competition in the ordinary sense. They could award the prize without any work being sent in, or, indeed, without the author being at all aware of his claims being considered. They might also withhold it, or alter the terms of its awards as they liked.

Mr. Hawkins next moved that the Council be authorised to procure the execution of a bust of the Queen for the Society.

This motion was also seconded by Dr. Webster.

Dr. Buzzard said he was loth to interfere, but he thought the artistic effect of the room would be spoiled by placing the Queen's bust over the President's chair. He objected to the funds of the Society being so used; if anyone liked to present a bust to the Society, that was another matter. There was, in the meantime, considerable delay in getting books; it would be better to get duplicates of these, or to reduce the annual subscription.

Dr. Cholmeley warmly opposed this utilitarian argument. It was not a question of gratitude for benefits received, but a mark of deference due to themselves as a Royal Society.

The motion was carried.

Next, Mr. Hawkins moved, and Dr. Webster seconded, a proposition that the Society give a reception at the end of the session. This, too, was carried.

The President then proceeded, in a very interesting and rhetorical address, to review the life and labours of the Fellows of the Society who had died during the past year. The list included the names of Dr. Tanner, Dr. Hennen (son of the well-known Army Surgeon, who died at Tunbridge Wells in June last, aged 71), Dr. Cursham, Dr. Hyde Salter, Mr. Samuel Solly, Mr. Langston Parker, Mr. Robert Wade, Dr. George Blackman,

Dr. George Edward Day, Mr. Thomas Hammerton, Dr. James Abercrombie, Dr. John G. Goulstone, Dr. William England, Mr. Simon Murchison, Mr. Charles Herbert Miles, Mr. John W. Hubbard, Dr. George Scratchley, Mr. Charles Revan Alexander, Dr. G. F. Dorsett Evans, Dr. Patrick Miller, Mr. Henry Derviche Jones, and Mr. Charles Beevan. The President also referred to the deaths of two distinguished honorary Fellows of the Society, Sir John F. W. Herschel and Sir Roderick Impey Murchison. He concluded with a memoir of a celebrated honorary Fellow, the Baron Paul Dubois, son of Baron Antoine Dubois, who died on November 29 last, at the age of 76.

CLINICAL SOCIETY OF LONDON.

FRIDAY, FEBRUARY 23.

J. B. SANDERSON, M.D., F.R.S., Vice-President, in the Chair.

MR. BRUDENELL CARTER exhibited by the demonstrating opthalmoscope the retina of a boy about 14 years of age, in which pulsation of the large vessels was observed.

Dr. ANSTIE, who had examined the patient, said there were no signs of valvular lesion.

Mr. THOMAS BRYANT read a paper on two cases of "Recto-vesical Fistula successfully treated by Colotomy." The first was that of a gentleman, aged 64, who had had diarrhœa, tenesmus, and the passage of blood and mucus three months before he had begun to pass fæces in his urine. Colotomy was performed on August 16, 1869, with complete relief. The patient was up and out of the house in a month. At the present time he passes his urine naturally, and the motions through the loin, some little urine at times finding its way into the rectum and upwards through the loin. The ulcer in the bowel has clearly long healed, the fistula alone remaining. The second case was that of a gentleman, aged 49, who for three years had been passing urine and fæces per urethram. He was much reduced in health, and most miserable from the local pain and irritation caused by his disease. On July 5, 1870, colotomy was performed, complete relief being given to his symptoms almost immediately. In three weeks he was up, and in another week out. Six months later, he reported that he was getting quite fat, that he was free from all pain, and that his only trouble was the passage of water at times up the bowel through the artificial anus. At the present time, a year and a half after the operation, he remains well. In both these cases Mr. Bryant remarked that there was good reason to believe that the ulcerative action that had caused the fistula was of a simple nature, and had commenced in the rectum; that after the operation the ulcers soon healed, although the fistulous opening remained. He stated that the two cases in every way supported the remarks he appended to a similar case which he had read at a sister society, and which were published in the *British and Foreign Quarterly Journal*, 1869, and still more prove the truth of Mr. Holmes's remarks made in the Medical and Chirurgical *Transactions*, 1869-70, on the same subject. Mr. Bryant added that these cases and all others he has had since 1868 have made him think more highly of the oblique incision in the operation than the transverse.

Mr. HEATH had recently operated on a female who twelve years ago had a child, followed by a pelvic abscess. This opened externally, and by-and-by closed. After a time the bladder sloughed, and flatus and fæces came away. He satisfied himself the communication was with the large intestine, so he opened the colon in the loin. This was followed by immediate relief, and now she had no trouble with her urine.

Dr. HABERSHON spoke to the great benefits of the operation in Mr. Bryant's second case; for before it the man's life was a burden to him. The difference such an operation made was sometimes very great. He recalled to mind a case where the operation was not done, and he now regretted it. The patient was passing flatus by his penis, but the adhesions of the gut to the bladder gave way, peritonitis came on, and he died.

Mr. HULKE urged that colotomy should not be limited to such cases only, but should be extended to other obstructive diseases of the rectum. Thus, a woman under his care for cancer had lived in comparative comfort for two years and a half after such an operation. Still more was it likely to be useful in simple ulceration into the bladder.

Mr. CARTER recalled to mind a case where he had operated, and subsequently used wood charcoal to deodorise the fæces with complete success. The colotomy gave very great comfort.

Mr. MAUNDER had now done this operation nine times, and twice in cases like Mr. Bryant's. In one the relief was exceedingly great, though the patient did not live long. In another case of simple stricture there was very great relief. The operation was comparatively simple. The peritoneum should not be injured, or, if injured, it should be stitched up.

Mr. BARWELL narrated a case supposed to be one of opening of the sigmoid flexure into the bladder. After death it was seen that the opening communicated between the middle of the colon and the fundus of the bladder.

Mr. T. SMITH asked if one could always avoid the peritoneum, and, if not, was it very dangerous to injure it. He remembered opening the peritoneum of a child, and a portion of gut was a good deal handled. After death, which happened in a month, no trace of an opening could be found. What was the best truss to use?

Mr. HULKE said a vulcanite shield with a knob was best.

Mr. BRYANT thought these remarks would lead to the more general use of the operation. He never regretted doing the operation; often that he had not done so. He did not like opening the peritoneum, as one patient died after such a mishap; he accordingly turned the bowel round, so as to get well behind it before opening it. After the operation he used an indiarubber ball cut in two bound on to the opening; this received any moisture or flatus.

Mr. WARRINGTON HAWARD read a paper on "Three Cases of Distension of the Antrum." The first was a boy, 4 years old, in whom, after pain in the upper jaw and discharge from the nostril, the antrum became distended, and an opening formed on the prominence of the cheek. Several other cases were mentioned in which an opening formed in the same situation. The treatment consisted of puncturing the antrum through a tooth-socket, and syringing the cavity with astringents. The second patient, aged 26, had what he thought to be a boil on the cheek, which during eight months had discharged matter. This proved to be an opening leading to the antrum, which was slightly distended. He was treated by syringing through the opening. The third patient, aged 50, had a solid tumour growing from the alveolus of each upper jaw, and one which had been soft, but had become bony, on the alveolus of the lower jaw. There was marked distension of the right antrum by fluid. The tumours and adjacent alveolar process were removed from the upper jaw, and the floor of the antrum opened to evacuate the fluid and allow examination of its cavity. The antrum contained no solid growth. The tumours were oval-celled sarcomata. The patient died from recurrence of the growth and the development of secondary tumours in the abdomen and elsewhere. The first cases showed with how slight a distension of the antrum an opening might form on the cheek, and pointed to the necessity of obtaining an exit for the fluid into the mouth as early as possible. The last case showed that when distension of the antrum occurs in connexion with a solid tumour of the upper jaw, it does not follow that this distension is due to solid growth—a point sometimes of much clinical importance.

Dr. ANSTIE asked what amount of neuralgic pain was present.

Mr. HAWARD called it neuralgic because it was in the course of the nerves. It did not regularly remit.

Dr. ANSTIE thought there was no neuralgia without great peripheral tension.

OBITUARY.

A. B. GRANVILLE, M.D., M.R.C.P., M.R.C.S., SURGEON R.N., F.R.S., ETC.

THIS well-known and accomplished Physician died last week at Dover at the great age of 89. He was born at Milan in 1783. He was the third son of Signor Carlo Bozzi, Postmaster-General of the Lombardo-Austrian Provinces, and was educated at Milan and Pavia, where he took his degree. After visiting many of the most celebrated islands of the Mediterranean he went to Lisbon, and in 1807 became Assistant Surgeon in the British Navy, where he remained until 1813, when he settled in London, having previously, with the consent of his family and in due legal form, added his maternal surname, Granville, to his own patronymic. Before entering into actual practice he became a Member of the Royal College of Surgeons, and in 1817 he was admitted a Licentiate of the Royal College of Physicians. In the same year he was elected a Fellow of the Royal Society. At first, we believe, it was his intention to practise generally; but he soon abandoned this idea, and, on becoming a licentiate of the College, determined to make

obstetrics and the diseases of children his study and special line of practice. He was elected Physician-Accoucheur to the Westminster General Dispensary in Gerrard-street, which office he held for many years, and on retiring was appointed Consulting Physician-Accoucheur to that institution. He was also Physician to the Metropolitan Hospital for Sick Children. But his active and suggestive mind took him into various subjects of experiment and inquiry. He published "Reports on the Practice of Midwifery," and "Graphic Illustrations of Abortion"—a book of rare merit, and (for the time) illustrated in a manner which excited general admiration. He claimed to be the first to introduce prussic acid into the practice of Medicine in England, This claim, we believe, he established fully; and though some years after an attempt was made to detract from his work on hydrocyanic acid in consumption, he entered into a controversy with his opponent, who, being no match for him either as regarded facts or brilliancy of writing, soon succumbed. Granville was a man, as we have said, of a most suggestive mind, and perhaps it might be said of too discursive an intellect to be great on any one subject; but he was more than respectable in all the various works which he published. To enumerate these will indicate his varied acquirements. Thus he published at various times the following:—"The First Reports on the Supply of Pure Water and the Purification of the Thames, and the Saving of Sewage for Manure," 1836; "Egyptian Mummies;" "Spas of Germany;" "Counter-Irritation;" "Spas of England;" "Kissingen;" "Catechism of Health;" "St. Petersburg; or, Travels to Russia;" "History of the Royal Society in Nineteenth Century;" "The Sumbul, a New Asiatic Remedy in Epilepsy;" "Sudden Death;" "New German Mineral Baths Cure;" "Letter to Lord Palmerston in July, 1853, predicting the Sudden Death of the Emperor Nicholas;" "Mineral Springs of Vichy;" "The Great London Question of the Day, or Can Thames Sewage be Converted into Gold?" 1865. Dr. Granville never had an extensive practice, but for many years he was one of the leading London Obstetric Physicians. More erratic in his movements than Sir H. Holland, he did not succeed in retaining his business so successfully as the now venerable Baronet did. As age advanced, Dr. Granville gradually retired, but he published his last work no longer ago than 1865. It should be mentioned that he conducted the *London Medical and Physical Journal*—a quarterly publication of good repute—for some years with much ability.

Dr. Granville was rather a brilliant than a profound Physician. Versatile, witty, charming in conversation, and of most polished manners, it may be remarked, without injury to his memory, that he wanted that plodding industry, that earnestness of purpose in one pursuit to entitle him to be regarded as a great Physician. Formerly, he was a frequent attendant at the Old Westminster Medical Society, and spoke at their meetings at an advanced age, with the clearness, the vivacity, and energy of a man half his age. He was a formidable opponent in debate, but he displayed more skill in the use of the rapier than the tomahawk. He was so inherently a gentleman that he never condescended, either in manner or language, to lower himself to indecent attacks or bullying. In person he was about the middle height, somewhat slightly built, but of a vigorous and elastic constitution. His face, so far as his features were concerned, was Italian, but his complexion was Saxon, and his eyes blue. In manner and bearing he was a good specimen of "a high-born and a high-bred man."

J. F. C.

WILLIAM MACTURLE, M.D.,

Died at Bradford, March 2, 1872, having been in practice there forty-eight years as a Physician. He was born at South Cave, in the East Riding of Yorkshire, in 1795. His parents were Scotch. He commenced practice as a general Practitioner in Scarborough, having obtained the Licence of the Apothecaries' Company of London in 1816. He only remained in Scarborough for four years, and then went and studied in Edinburgh and Glasgow, taking the degree of M.D. at the University of the latter city in 1823. He went to Bradford in 1824. He was appointed one of the first Physicians to the Bradford Infirmary on its establishment in 1825, and continued to be one of the active staff till within two years of his death, devoting a very considerable portion of his time to the institution. He was a man of upright character and pleasing manner, and was very highly respected in the town and neighbourhood, both by the public and the Medical Profession. For many years he enjoyed the principal consulting practice in Bradford and the surrounding district. He died of senile gangrene after a painful illness of four months' duration. He was twice married, his second wife and one son and three daughters surviving him.

ROBERT BRENT, M.D., F.R.C.P., Edin.

This gentleman was educated at St. Bartholomew's. He became M.R.C.S. Eng. in 1844, in 1845 graduated at St. Andrews, and became a Fellow of the Edinburgh College of Physicians in 1846. He commenced practice at Woodbury, near Exeter, Devon, about the year 1846, and retired from practice about four years ago. On his retirement, a testimonial to his great worth, in the shape of his portrait painted in oil by Mr. Sydney Hodges, was presented to him by his numerous friends. He was Lieut.-Col. of the 1st Administrative Brigade Devon Artillery Volunteers, and held the Captaincy of the Woodbury Battery, of which he was the founder. He died at Sydney Cottage, of apoplexy, on February 26, in the 53rd year of his age, deeply regretted by his relatives and friends. Of the latter he had a large circle.

BENJAMIN EVANS, F.R.C.S., L.S.A.,

Died a few days ago at his residence, Acre House, Brixton, in his 70th year. He was formerly in practice in the borough of Southwark. He retired from this some years since. He was a man of energy and of liberal opinions, both as regards his Profession and politics. He occupied some parochial and other public appointments, and at the time of death was a member of the Metropolitan Board of Works for St. Mary's, Newington. He took a prominent part in the formation of the British Medical Association—we mean the first of that name, of which the present Dr. Webster, of Dulwich, was the first President, which office he filled for several years. Mr. Evans was Consulting Surgeon to Southwark Lying-in Charity. He was author of a case of "Hydrocele of the Neck," and "Case of Perforation of the Stomach."

JOHN A. WALSH, L.R.C.S. Edin., L.M., L.A.H. Dub.,

Of Thurles, died on the 25th ult. from the effects of a fall from his horse. It appears that on the evening of the above day he rode on horseback to the residence of Mr. Thos. L. Power, of Clearagh, where he dined. He left Mr. Power's house about nine o'clock; at eleven o'clock two men who were proceeding home found Mr. Walsh lying in the middle of the road with a fearful wound at the back of his head. The stirrup iron of the saddle was on his left boot. The unfortunate gentleman was not quite dead when first seen, but he expired in a few moments after being conveyed to a house near where he was found—a place called Pouldine, about three miles from Thurles. An inquest was held on the body. Medical and other evidence having been given, the jury returned a verdict "that the deceased was accidentally killed, he having fallen off his horse."

The deceased was only 30 years of age, and was a native of Carrick-on-Suir. He was Medical Officer to the Littleton Dispensary, had been in practice in the town of Thurles for the past eight years, and had the goodwill and respect of all classes of the community, who deeply deplore his untimely end.

JAMES GATIS, M.R.C.S., etc.,

Died suddenly a few days since at Wolverhampton. The deceased was born at Cockermouth, and went to Wolverhampton in 1834 as House-Surgeon to the old Dispensary in Queen-street. He married, in 1837, the daughter of the late Mr. W. Clark, the well-known ironfounder of that town. In 1851 the late Mr. George Edwards and Dr. Bell, at that time two of the leading members of the Profession, joined Mr. Gatis in partnership, which was only dissolved by the death of those gentleman ten years afterwards. It was at this period Mr. Gatis removed to his residence in North-street, and, as evidence of the high esteem in which he was held, he was soon after elected among the first chosen aldermen of the borough. He was in active Professional work within a few hours of his decease, and had only a few minutes before the fatal seizure returned from visiting a patient. At the time of his death Mr. Gatis was the senior Practitioner in the town. His removal has left a gap in the town and neighbourhood that will not easily be filled. His loss will be deeply felt by the poor.

It is expected that Prince Arthur will open the bazaar for the new Southern Hospital, Liverpool, as well as the Hospital itself, at Whitsuntide.

NEW INVENTIONS.

VIN DE QUINQUINA, TITRÉ AU FER ET CAÇAO.

(E. Lambert, Pharmacie Beaujon, 171, Boulevard Haussman, Paris; Melein, Titchborne-street, London.)

In French Pharmacy, the manner is of as much importance as the matter. Elegance of form to please the eye, and agreeable taste to please the palate, are characteristics of their therapeutical *spécialités*. The example before us is a compound of cinchona, iron, and the active principle of the caçao. Moreover, stress is laid on the fact that it is prepared with the finest old Malaga wine; for it is a singular fact that, whilst the Anglo-Saxons look to a dry wine as their chief help in debility and anæmia, the Latin races have a prejudice in favour of strong sweet wines, and all over France and Italy the wine of Malaga is believed to be exceptionally nutritive. It is with a wine of this sort, we believe, that the traditional old black steel wine is made at Apothecaries' Hall, which was always recommended by Sir Benjamin Brodie. M. Lambert's Vin de Quinquina resembles that preparation, but contains besides the bark and caçao, and seems well worth the notice of the Physician who is prescribing for blighted children.

MEDICAL NEWS.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the examinations for the licence to practise Medicine, held on February 6 and 14, the following candidates were successful:—

Browne, Thomas Henry.	Irwin, Andrew.
Clarke, Richard Ashmore.	Stoker, William Thornley.
Clune, Michael Joseph.	Wigmore, Patrick Stephen.
Hannan, Francis Bayley.	

At the examinations for the Midwifery Diploma held on February 8 and 16, the following passed:—

Browne, Thomas Henry.	Irwin, Andrew.
Clarke, Richard A.	Stoker, W. T.
Clune, Michael J.	White, Richard D.
Hannan, Francis B.	

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 7:—

Duncan, Andrew, Henrietta-street, Covent-garden.
Nix, Edward James, West Ham, Stratford.
Shemilt, George Richard, Tean, Staffordshire.

As an Assistant in Compounding and Dispensing Medicines—

Griffin, Alfred William, Havant.

The following gentlemen also on the same day passed their first Professional examination:—

Collins, Henry Beale, King's College.
Foreman, Joseph, Guy's Hospital.
Hawton, James W. H., Guy's Hospital.
Moore, Henry Cecil, Birmingham.
Smith, Richard, Birmingham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ANDERSON, WILLIAM, M.R.C.S.—Surgeon to the Dispensary, Newcastle-on-Tyne.

CAAR, CHARLES, M.R.C.S. and L.S.A.—Surgeon to the Dispensary, Newcastle-on-Tyne.

CHALMERS, J. D., M.B., F.R.C.S., late House-Surgeon to the Northern Hospital—Assistant Medical Officer to the Infirmary for Children, Liverpool, *vice* Dr. Davidson, who has been elected one of the Physicians to the Northern Hospital.

HAMMOND, ROBERT E., M.R.C.S.E. & L.R.C.P., and BEEBNER, GEORGE R., M.B. & C.M.—Medical Officers and Public Vaccinators for the divided District No. 6 of the Chorlton Union, Lancashire, *vice* John Henry Brown, M.R.C.S.E., L.S.A. Lond., deceased.

HUGHES, W. R., L.K.Q.C.P.I., L.R.C.S.I., L.M.—Junior House-Surgeon to the Southern Hospital, Liverpool, *vice* R. Leigh, M.R.C.S.E., resigned.

KING, GEO., M.B. Lond., M.R.C.S., L.S.A. Lond.—Surgeon to the Royal South Hants Infirmary.

SIMS, W., M.B., etc., Administrator of Chloroform to the Royal South Hants Infirmary — Assistant-Surgeon to the Royal South Hants Infirmary.

SUTHERLAND, JAMES, M.B., C.M.—Senior House-Surgeon to the Ardwick and Ancoats Dispensary, Manchester, *vice* Orchard, resigned.

NAVAL AND MILITARY APPOINTMENTS.

MEDICAL DEPARTMENT.—To be Staff Assistant-Surgeons: Ernest Wyndham Cottle, Robert Vacy Ash, M.B., Paul Connolly, Charles Edward Dwyer, John Godfrey Rogers, M.B., Benjamin Bloomfield Connolly John Dallas Edge, M.D., Frank Edward Barrow, Robert Blood, M.D., Henry John Waller Barrow, M.D., William Percy Bridges, Robert Drury, M.D., and William Cameron Grant, M.B.

The undermentioned officers have been confirmed as Assistant-Surgeons in her Majesty's Fleet:—Mr. Thomas Harvey, Mr. William Algeo, Dr. Michael Kearney, Mr. John Lynn, Mr. William Brown, Mr. John Tyndall, Dr. Matthew Reed, Mr. Alexander Richard Joyce, Dr. Charles Atkinson Rathborne, Mr. Thomas Power, all with seniority of March 2, 1871; Mr. Brien Patrick Sarsfield M'Dermott, Mr. Richard John Parry, Mr. Gerard James Irvine, all with seniority of March 7, 1871; Mr. George Woods Low, Mr. Scudamore Kidley Powell, both with seniority of March 10, 1871; Mr. Alexander William Flood, with seniority of March 11, 1871; Dr. John Francis Enright, with seniority of March 16, 1871.

BIRTHS.

DEACON.—On March 11, at Ottery St. Mary, Devon, the wife of H. Pelham Deacon, M.R.C.S.E., of a son.

HATHERLY.—On March 7, at Wellington-street, Park-side, Nottingham, the wife of Dr. Henry R. Hatherly, of a daughter.

MCNAB.—On March 3, at St. Oswald's-terrace, Fulford, near York, the wife of R. McNab, M.D., Staff Surgeon-Major, of a son, stillborn.

POTTER.—On March 11, at Collumpton, Devon, the wife of Samuel Reginald Potter, M.D., of a son.

SPYERS.—On March 8, at Faversham, the wife of Thomas C. Spyers, M.D., of a son.

MARRIAGES.

BRADLEY—MARTIN.—On March 7, at Holy Trinity Church, Upper Tulse-hill, William Henry Bradley, Staff Commander R.N., to Edith Louisa Agnes, youngest daughter of Robert Martin, M.D. Heidelberg, Victoria, Australia.

FINDEN—ROBINSON.—On February 10, at Trinity Church, Allahabad, Woodforde Finden, M.R.C.S., L.R.C.P., 11th Bengal Lancers, to Valence Aimee, youngest daughter of the Rev. Julian Robinson.

LUKE—PERROTT.—On March 6, at St. Barnabas, Hornsey-road, Henry Luke, M.R.C.S., of Tollington-park, N., to Matilda Duerdin, eldest daughter of the late Richard Perrott, Esq., of Tollington-park.

LUNDSTRÖM—LEWIS.—On March 7, at St. John's Church, Upper Holloway, Fredrik, second son of Johan Fredrik Lundström, Esq., of Goteberg, Sweden, to Augusta Mary, younger daughter of the late Thomas Lewis, M.R.C.S., of St. Albans, Hertfordshire.

MEYERSTEIN—HESS.—On March 7, Emile Meyerstein, Esq., of 14, Fellowes-road, Haverstock-hill, to Pauline, eldest daughter of Augustus Hess, M.D., M.R.C.P. London.

TONNIES—OLGUIN.—On March 7, at All Souls', Langham-place, Augustus Ove Tonnies, Esq., of Crosby House, Bishopsgate-street, to Ramona Zella, eldest daughter of Joseph Olguin, M.R.C.S. Eng., of 11, Hinde-street, W.

WATSON—GWILLIM.—On March 5, at Chertsey, H. Watson, Esq., of Hackney, to Selina Waring, youngest daughter of William Gwillim, M.D.

WILSON—POLLOCK.—On March 7, at Zetland House, Bridge of Allan, George Wilson, M.D., L.R.C.S., Huddersfield, to Jane, youngest daughter of the late David Pollock, Esq., Stirling.

DEATHS.

BURNETT.—At Balbithan House, Aberdeenshire, Mary Stuart, daughter of Charles Stuart, M.D., of Dunearn, and widow of the late John Burnett, Esq., of Kemnay, aged 86.

PARKER, CONSTANCE ROSE, eldest daughter of the late William Parker, M.R.C.S., of St. Osyth, Essex, at Collingwood College, Lee, Kent, of gastric fever, aged 19.

TYRRELL, SOPHIA EVELYN, daughter of W. J. Tyrrell, Army Medical Staff, at Netley, aged nine months.

WILLIAMS.—On March 10, at his residence, Foregate-street, Worcester, Philip Henry Williams, M.D., M.R.C.P.L.

WOOD.—On March 8, at Woodhouse Eaves, Leicestershire, Ann, the wife of Charles Walker Wood, F.R.C.S., aged 70.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BECKETT HOSPITAL AND DISPENSARY, BARNSLEY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications and testimonials, on or before April 8, to Messrs. Newman and Sons, Solicitors, Barnsley.

BIRMINGHAM QUEEN'S HOSPITAL.—Resident Physician and Medical Tutor. Candidates must be Graduates in Medicine of a University of Great Britain or Ireland. Applications, with diplomas and testimonials, to Mr. H. C. Burdett, on or before March 22.

CARMARTHEN COUNTY AND BOROUGH INFIRMARY.—House-Surgeon. Must be M.R.C.S. and L.S.A. A knowledge of the Welsh language is necessary. Applications to Mr. H. Howell, King-street, Carmarthen, on or before April 10. Election on the 12th.

LOCHMABEN, DUMFRIESSHIRE.—Medical Officer wanted for this Parish. Good scope for private practice. Applications to the Inspector of the Poor, on or before March 22.

QUEEN'S HOSPITAL, BIRMINGHAM.—Dental Surgeon. Candidates must possess the Dental Diploma of the Royal College of Surgeons of England. Applications and testimonials to be sent to the Medical Committee of the Hospital, on or before March 21.

RIPON DISPENSARY AND HOUSE OF RECOVERY.—House-Surgeon and Dispenser. Testimonials to the Hon. Sec., on or before March 25.

ROTHERHAM HOSPITAL AND DISPENSARY.—House-Surgeon. Must be duly qualified. Applications and testimonials to the Honorary Secretary, on or before March 26.

Royal Free Hospital, Gray's-inn-road.—Junior Resident Medical Officer. Candidates must possess a Medical or Surgical qualification. Testimonials to James S. Blyth, Sec., on or before March 20.

Royal Surrey County Hospital.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before April 16.

St. Marylebone General Dispensary.—Surgeon. Candidates must be M.R.C.S. Eng., and must attend personally on Wednesday, April 3 next, at eleven o'clock in the forenoon, with a written application. No canvassing allowed.

Walsingham Union.—Medical Officer and Public Vaccinator. Candidates must be duly qualified in accordance with the General Orders of the Local Government Board. Applications with testimonials to be sent to Mr. J. Wright, Clerk, Bridge-street, Fakenham, on or before March 26.

West Sussex, East Hants, and Chichester Infirmary and Dispensary.—House-Surgeon. Candidates must be duly qualified. Testimonials, etc., to be sent to Mr. E. W. Barton, on or before April 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Alderbury Union.—Mr. F. R. P. Darke has resigned the Fourth District; area 18,077; population 3155; salary £60 per annum; also, the Workhouse, salary £40 per annum.

Leeds Union.—The Headingley-cum-Burley District is vacant; salary £55 per annum.

APPOINTMENTS.

Salford Union.—Thos. N. Orchard, B.M. & M.C. Marischal College and University, Aberdeen, as Assistant Medical Officer at the Workhouse.

Towcester Union.—Arthur Hill, M.R.C.S. Eng., L.S.A., to the Blakesley District.

Mr. Dyson Wood has been appointed Medical Officer and Public Vaccinator for Stanley-cum-Wreathorp.

We understand, in consequence of there being so many candidates attending the next session of the Army Medical School at Netley, that there will be no room for Medical officers.

Royal College of Surgeons.—Mr. Busk, F.R.S., the President of the College, entertained a large and distinguished party at Willis's Rooms on Saturday last. Amongst those present were the heads of the Navy and Army Medical Departments, the President and Master of the Royal College of Physicians and Society of Apothecaries, Sir Ranald Martin, Professors Owen, Allman, Flower, and Holmes, etc.

Association of Medical Officers of Health.—Session 1871-72.—The next meeting will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday (this day), March 16, at 7.30 p.m., Robt. Druitt, M.R.C.P. Lond., F.R.C.S., President. Dr. C. O. Baylis, Medical Officer of Health, Birkenhead, will be balloted for as an extra-Metropolitan Member. Dr. A. W. Barclay will introduce Mr. Stansfeld's Public Health Bill for discussion, and will make some remarks on the principal clauses. A short paper, by F. W. Lowndes, Esq., of Liverpool, will be read (should time permit), "On the Criminal Deaths of Infants, as shown by the Records of the Coroner's Court at Liverpool."

The Belgian Minister of Justice has declared in the Chamber that in consequence of the facts respecting the cruelties and maladministration of the lunatic asylum at Evere, which we noticed in our columns a few weeks since, a general inspection of all lunatic asylums is to take place.

Dr. Corfield's Report on the Sanitary Condition of St. Mary, Islington, for February, 1872, states that the total number of deaths during the four weeks ending February 24 was rather less than that during the corresponding weeks of the last two years. Hooping-cough, among the miasmatic diseases, has caused most deaths. Measles have very much abated, and the other miasmatic diseases have shown a slight decrease in fatality, but there have been one or two stray cases of typhus fever.

Poor-law Medical Reform.—At a meeting of the Union Medical Officers of Worcestershire, held at the Medical Library, Worcester, on Saturday, March 9, 1872, pursuant to notice, the following resolutions were unanimously adopted:—"1. That the whole system of Poor-law Medical relief in England is highly unsatisfactory, and urgently requires reform. 2. That this meeting considers the extension of the Dispensary System to county towns as most desirable; but at the same time deems it especially necessary that areas of districts shall be diminished, where in excess, and that the whole of the Medical Officers' salaries shall be paid out of the Consolidated Fund; also that those salaries be revised so as to meet the requirements of the present time. 3. That in revising the salaries of Union Medical Officers, the present large—and increased—cost of provisions, etc., be taken into consideration. 4. That if Union Medical Officers are appointed Medical Officers of Health, the salaries shall be adequate to the responsibilities of the office; and also some independent offices appointed to superintend large areas. 5. That copies of the resolutions passed shall be forwarded to the local paperr, members of Parliament, and Medical journals."

Indian Medical Service.—The following were the successful candidates at the recent examination for forty appointments as Assistant-Surgeons:—

Order of Merit.	Names.	Total number of Marks (3400 maximum).
1	Crombie, A.	2920
2	Murphy, W. R.	2630
3	Joubert, C. H.	2525
4	Russell, E. G.	2365
5	Fasken, W. A. D.	2360
6	Branfoot, A. M.	2330
7	Hall, G. C.	2300
8	Scully, J.	2265
9	Watson, G.	2095
10	Gopaul Chunder Roy	2085
11	Reid, A. S.	2070
12	McNally, C. J.	2055
13	Zorab, J. M.	2005
14	Duke, J.	2000
15	Lang, J. A. T.	1960
16	Russick Lall Dutt	1950
17	Butler, W. J.	1945
18	Palmer, E.	1945
19	McConaghey, J.	1920
20	Wilson, J.	1905
21	Mulvany, E.	1885
22	Bookey, J. T. B.	1870
23	Young, J.	1870
24	Daphtary, G. R.	1810
25	Holmes, R. A. K.	1795
26	Lawrie, E.	1775
27	Beavan, G. F.	1730
28	Little, C.	1730
29	Johnson, W. E.	1690
30	McGregor, A.	1685
31	Bankabehari Gupta	1665
32	Dobie, S. L.	1640
33	Lloyd, C.	1615
34	Williams, A. H.	1605
35	Dobson, A. F.	1600
36	Ferris, J. E. C.	1600
37	Lawrenson, J. C.	1580
38	Lombard, D. E. T.	1565
39	Mayne, T.	1530
40	Aylen, T. V.	1520

Election at the Académie de Médecine.—The election into the Section of Surgical Pathology on March 5 was attended with considerable excitement. "The position in which M. Voillemier was placed by the Section," says the *Union Médicale*, "is a marked example as to the instability of opinion. Two years since, when a vacancy had to be filled up in the Section of Operative Medicine, M. Voillemier headed the list, and, although he was not successful, everyone admitted his long-established claims as a distinguished Surgeon. In the list presented on the present occasion he occupied the sixth and last place only. It is true the members of the two Sections of Surgical Pathology and Operative Medicine are different; but they are all Surgeons, and the candidates were the same. The Academy to a certain extent, although not completely, rectified this injustice; and it was found at the first round of the ballot-box that M. Voillemier was second on the list, as he was on the second and third rounds. Still he only polled thirty votes, while M. Dalbeau, a much younger man, but with all the *prestige* of a Professor of the Faculty, polled forty-three." Another vacancy has occurred in the Section of Operative Medicine through the death of M. Laugier, and it is stated that this will be made the occasion for a full reparation to M. Voillemier.

Sanitary State of Paris.—As will be seen by the *Bulletins Hebdomadaires des Décès*, for some months past the mortality has ranged between 750 and 850 deaths per week, which is a moderate mean. No epidemic, since the period of the siege, has occurred to raise it. Small-pox has disappeared, and typhoid fever does not prevail to an extent to cause disquietude. Diphtheritic affections have ceased to menace infantile life. Affections of the digestive organs are below the minimum figure, and the little epidemic of benign

jaundice seems to have come to an end. The dominant maladies are thoracic affections and eruptive fevers, and especially measles. There are few persons who have not had to pay tribute, although often a very light one, to influenza.—*Gazette Médicale*, March 2.

The French Patriotic Subscription.—La Société des Médecins des Hôpitaux de Paris, at its meeting on February 23, voted with acclamation from its funds the munificent sum of 10,000 francs (£400), independently of the individual subscriptions which will be made by its members.

Disgraceful Advertising in High Quarters.—The *Presse Méd. Belge* of March 3 gives publicity to the fact of a member of the Profession, holding a very high position, circulating in the fashionable quarter of Brussels two cards of a most reprehensible character. The one contains his name, with his titles of Commander of the Order of Leopold, and Officer of the Legion of Honour. On the other "we read with stupefaction as follows:—'The consultation-room of Dr. X, No. —, of —— street, is open every day (Sundays and holidays excepted), from nine o'clock until three. Terms of consultation: From nine to ten, 3 fr.; from ten to twelve, 5 fr.; from one to three, 10 fr. By written appointment or at the patient's house, 20 fr. Every Monday, from nine to ten, gratuitous consultation. Vaccination and revaccination, 10 fr.'"

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

We are glad that Dr. Gutteridge is satisfied with the milk obtained at the Friern Manor Farm Dairy.

Loukee.—We really cannot tell. There has been nothing settled as yet.

X. Y. Z.—Try a knee-cap. Obtainable at Salmon's, 87, Wimpole-street.

Mr. A. Paterson, Bahia, Brazil.—Note, with enclosure, received with thanks.

P. Q. R.—1. Fresh registration only can make him a legally qualified Practitioner. The General Medical Council would not register him without a full inquiry. 2. We do not think that the Licensing Body from which he obtained his diploma could have been aware of his antecedents.

Mr. Spencer Smith.—As some surprise has been expressed by a contemporary at the election of this distinguished Surgeon as a member of the Court of Examiners of the Royal College of Surgeons, it may be interesting to the numerous friends and pupils of the new Examiner to state the numbers polled on the occasion; they were—For Mr. Smith, 11; Mr. Birkett, 5; and Mr. Holmes, who was only nominated at the last moment, 1. So, as the *Lancet naïvely* observes, "Mr. Smith was elected by a majority."

Bones.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Could you or any of your readers inform me of a method of cleaning and whitening bones. I am, &c., Student.

March 7.

*** Quicklime and macerating in hot water.

Only a Doctor.—Everyone will concur in the sentiments expressed; but we suspect that if we were to publish such a note, the person chiefly interested would say, "Save me from my friends." Nothing injures a man so much as the holding him up as a "martyr," or insisting upon it that he is much injured. Pity is nearly allied to contempt—*Pruicipibus placuisse viris haud minima laus est*; but the reverse is not necessarily a disgrace. Every tub must be left to stand on its own bottom.

Chelmsford.—Complaints have reached us of the manner in which the appointment of Medical Officer of Health to this town was made. It is said that long before an advertisement appeared stating that an election would take place, canvassing had been resorted to by one gentleman, at least, in the most persevering and unblushing manner. The appointment was, it is stated, made before any public announcement appeared respecting the office. It is moreover complained that the recipient of office and his partner already held seven public appointments, which are, it is considered, made subjects of party warfare.

Poisoning made Easy.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—As a fitting pendant to my letter, headed as above, which appeared in your issue of February 24, I send the following extract from last Saturday's *Times*. The sale of strychnine-poisoned grain has very properly been put a stop to; and if you, Sir, or some gentleman of influence in the Medical world, were to take the matter in hand, the sale of strychnine poisoned powder would likewise be prohibited.

I am, &c., Thomas W. Salter, F.C.S.

St. John's Cottage, New Wandsworth, S.W., March 11.

"Inquest.—Yesterday evening an inquest was held at the Board-room, Mount-street, Grosvenor-square, on the body of Charles Thompson, aged 39, who committed suicide by taking vermin powder, at No. 26, Robert-street, under the following circumstances:—The deceased lodged at the above address, and at half-past eight Mrs. Godley, the landlady, took up a letter, which she pushed under the door. Within an hour after he called out for assistance, and asked for a Doctor. He said he had taken some vermin-killer, and before Medical aid could be procured life was extinct. Dr. W. Bloxam said the cause of death was poisoning by strychnia. Evidence was then given showing that deceased had lost money at the Stockton steeple races, that he was worried to death about three illegitimate children, also that he was interested in the Tichborne bonds, and it is supposed that the letter given to him contained information of the foreman's intimation on the previous day, the effect of which caused him to commit the act. Verdict, 'Suicide while in an unsound mind, brought on by an accumulation of misfortunes.'"

The London Students' Gazette is the name of a new monthly periodical issued under the direction of Mr. Barton Smith, of St. George's Hospital. It is not exclusively Medical, but intended as a medium of communication with the students of all the arts and sciences who find in London more of a *habitat* than a home. It is intended to mitigate some of the evils attendant on the London University system, as distinguished from those of Oxford, Cambridge, and Edinburgh—especially the isolation and want of *esprit de corps*, the want of means whereby men may know each other, and the spirit of *cram* by which the London University is unhappily distinguished.

"Scattered over our vast metropolis lie Colleges and Medical Schools in every direction, attended by young men who scarce know an individual in their lecture-room, and who leave their education to branch off into the various professions, utterly forgetful of the institution to which they owe their knowledge and livelihood, and without that pride in it which distinguishes and elevates our contemporaries of Oxford and Cambridge. . . . To members of the University of London we have a particular motive in addressing ourselves: from all parts of England, their 'academical' residences situate in almost every street of London—their thoughts concentrated upon two liats, the synopsis of subjects and the divisional table of graduates—they provide themselves with fodder and intellectual 'Thorley's food' to be periodically slaughtered or adorned with ribbons at the pleasure of a Senate and Board of Examiners, with regard to whose names, far less acquirements, they are totally ignorant or very slightly enlightened. It is a subject of regret that so many hard-working men should be reduced to cadaverous complexions and longitudinal dimensions, deceived by the specious motto '*Cuncti adsint*,' when a more intelligent curriculum, a more effective union, and a more thorough solicitude for their welfare would make them 'healthy, wealthy, and wise'—more charitable, courteous, and friendly one with the other, and prouder of their University or Alma Mater than of their degrees, as at present."

The object of the publication is good, and if it can induce students to be more social, more practical, less of bookworms, and more inclined to look on degrees and academical distinctions as means than as ends, it will do great good. Some of the articles need more careful revision.

The Income-tax Grievance.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you be good enough to state what deductions are usually considered allowable in making a return for income-tax under Schedule D; or, in other words, from profits arising from the Profession of Medicine, Surgery, etc.? I have always acted in accordance with the directions published in your journal some years ago—viz., "State the gross annual amount actually received for Professional services, then deduct two-thirds of rent of house, if part thereof be used as a surgery, etc., the salary and board of assistant or assistants, the board and wages of groom, expense of horse or horses and carriage, if used solely for Professional purposes, and the amount paid for drugs, phials, instruments, etc.; the remainder is liable to the tax"—and have had no reason to complain before last month, when the demand made upon me included a surcharge upon the sum I had returned of £125. Upon my asking for an explanation from the district surveyor of taxes, I was interrogated as to what deductions I had made, and was curtly informed that I might appeal if I chose, but that the Commissioners of Income-tax would not allow deductions in the proportions I had set down.

Well may Mr. Morley, M.P., in the late deputation to the Chancellor of the Exchequer, have said "the tax had been made intolerable during the past two years, and unless the right hon. gentleman exercised his ingenuity to discover some mode of making those under Schedule D pay by a process less offensive, he might depend upon it that there would be no rest for him."

It is generally thought that the collector, or surveyor, or assessor, or whoever the official or officials may be that determine the assessment, receive a commission on surcharges, and hence there is no difficulty in believing how such a conclusion may be arrived at as that A must have a larger Professional income than that represented by the sum returned by him, in order to account for his living in the style he is known to do.

But I need not say there may be, and often is, a great source of fallacy in this argument, inasmuch as A may have a private income from which the tax is deducted before he receives a farthing of it.

I suppose there are but few members of our Profession who would not rather pay the surcharge than go through the ordeal of appealing, which implies waste of time and much vexation of spirit; but I would suggest that, if the income-tax is to be continued, authoritative directions in full should be issued as to the mode of filling up the return for assessment. I think this is needed, because several of my brethren to whom I have mentioned the subject make no return, but allow themselves to be assessed by the Commissioners, and probably they are assessed under these circumstances at a sum lower than they could conscientiously furnish if they made a return. I am, &c., Unjustly Surcharged.

*** The only way is to appeal, and show the Commissioners that the deductions are fair. But we concur in our correspondent's demand for fuller directions. With a Poor-law, with trades unions and strikes, and with the notorious improvidence of the working-classes, Schedule D is felt to be a most unjust impost.

COMMUNICATIONS have been received from—

Dr. Gutteridge; Mr. Lidiard; Sir Dominic Corrigan; X. Y. Z.; Mr. Granville; Dr. James Jago; Dr. McNalty; Dr. Patterson; Dr. McEwen; Mr. T. W. Salter; Mr. Thomas Piper; Dr. Aldis; Mr. H.

MORRIS; Mr. JAYAKAR; Dr. R. H. MEADE; Mr. V. RICHARDS; UNJUSTLY SURCHARGED; Mr. C. L. KEMP; Dr. FULHAM TURNER; Dr. VINEN; Mr. F. W. LOWNDES; Dr. STEVENSON; Dr. SANSOM; ONLY A DOCTOR; Mr. H. C. LAWRENCE; Mr. COXON; Dr. CORFIELD; Dr. R. D. POWELL; Mr. H. ARNOTT; Mr. J. BESWICK PERRIN; Mr. TEEVAN; Mr. J. CHATTO; Dr. A. B. SQUIRE; P. Q. R.; Dr. G. WILSON; A VOICE FROM A COLONY.

BOOKS RECEIVED—

Kelly's London Medical Guide—Report of the Rotunda Lying-in Hospital—Madras Monthly Journal, February—La Régénération du Cristallin chez quelques Mammifères, par le Dr. Benjamin Milliot—Agricultural Returns of Great Britain—A Plea for Scientific Reform—L'Extraction des Projectiles, par le Dr. Benjamin Milliot—Twenty-first Report of the Wilts County Asylum—Simpson's Diseases of Women.

PERIODICALS AND NEWSPAPERS RECEIVED—

Medical Press — Nature — Wolverhampton Chronicle — Pharmaceutical Journal—Chelmsford Chronicle—The Clinic, February 24—Gazette des Hôpitaux—The Medical Investigator—United Service Gazette—Dark Blue—Birmingham Morning News, March 13.

APPOINTMENTS FOR THE WEEK.

March 16. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH, 7½ p.m. Dr. A. W. Barclay will introduce Mr. Stansfeld's Public Health Bill for discussion, and will make some remarks on the principal clauses. Mr. F. W. Lowndes (Liverpool), "On the Criminal Deaths of Infants, as shown by the Records of the Coroner's Court at Liverpool."

ROYAL INSTITUTION, 3 p.m. Mr. Moncure D. Conway, "On Demonology."

18. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

MEDICAL SOCIETY OF LONDON, 8 p.m. Mr. W. B. Dalby, F.R.C.S., "On a Case of Temporary and Extensive Loss of Hearing thought to depend on Constitutional Syphilis." After which the Adjourned Discussion on the "Treatment of Aneurism" will be continued.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

19. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

PATHOLOGICAL SOCIETY, 8 p.m. The following Specimens will be exhibited:—Mr. Sebastian Wilkinson, "Congenital Extension of the Conjunctiva over the front of both Eyes (a living subject." Mr. Jonathan Hutchinson, "A Meningocele Cyst removed by Operation;" "Specimens of Dislocation and Fracture of the Vertebræ;" "Specimens from a Case of Chronic Rheumatic Arthritis." Mr. Durham, "Hydatid Tumour of the Thigh." Mr. W. Anderson, "Recurrent Tumour of the Breast;" "Hernia of the Liver." Dr. Whipham, "Tumours of the Kidney." Mr. Arnott, "Enlargement of the Tongue." Dr. King, "Malformation of the Heart." Mr. Thomas Smith, "Aneurism of the Sinuses of Valsalva, Clubbed Fingers." Dr. Thorowgood, "Stricture of the Œsophagus."

ROYAL INSTITUTION, 3 p.m. Dr. W. Rutherford, F.R.S.E., "On the Circulatory and Nervous Systems."

20. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Lumleian Lectures—Dr. Quain "On Diseases of the Muscular Walls of the Heart."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

SOCIETY OF ARTS, 8 p.m. Meeting.

21. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Mr. F. J. Gant, "On Impacted Fracture of the Neck of the Femur: its Diagnosis and Treatment."

ROYAL INSTITUTION, 3 p.m. Prof. Odling, F.R.S., "On the Chemistry of Alkalies and Alkali Manufacture."

22. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

CLINICAL SOCIETY, 8½ p.m. Dr. Southey, "On Two Cases of Persistent Omphalo-mesenteric Duct leading to Fatal Intestinal Obstruction." Mr. Teevan, "On the Treatment adopted in Four Cases of Impermeable Stricture." Mr. Gant, "Spontaneous Gangrene of both Feet from Disease of the Heart—Amputation, Recovery, etc." Dr. Broadbent, "Case of Paralysis due to Tumours in Pons and Medulla Oblongata."

QUEKETT MICROSCOPICAL CLUB, 8 p.m. Meeting.

ROYAL COLLEGE OF PHYSICIANS, 5 p.m. Lumleian Lectures—Dr. Quain, "On Diseases of the Muscular Walls of the Heart."

ROYAL COLLEGE OF SURGEONS OF ENGLAND, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

ROYAL INSTITUTION, 9 p.m. Mr. J. Norman Lockyer, "F.R.S., M.R.I., "On the Results of the last Eclipse Expedition."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 9, 1872.

BIRTHS.

Births of Boys, 1309; Girls, 1259; Total, 2568.
Average of 10 corresponding weeks, 1862-71, 2174·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	811	754	1565
Average of the ten years 1862-71	785·5	739·6	1525·1
Average corrected to increased population	...	...	1678
Deaths of people aged 90 and upwards.	...	...	...

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	5	2	1	17	...	2	5	2
North ...	751668	21	22	8	6	31	2	1	...	2
Central ...	333887	6	8	2	1	11	...	...	2	1
East	638928	16	14	5	..	25	2	...	...	4
South	966132	6	3	12	...	27	1	7	2	3
Total	3251804	49	52	29	8	111	5	10	9	12

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·730 in.
Mean temperature	48·7°
Highest point of thermometer	60·8°
Lowest point of thermometer	35·8°
Mean dew-point temperature	43·0°
General direction of wind	S.S.E. & S.S.W.
Whole amount of rain in the week	0·07 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 9, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending March 9.	Deaths Registered during the week ending March 9.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2568	1565	60·8	35·8	48·7	9·28	0·07	0·18
Portsmouth ...	115455	12·1	73	45	56·4	39·0	47·2	8·44	0·00	0·00
Norwich	81105	10·9	63	47	57·5	37·0	47·0	8·33	0·00	0·00
Bristol	186428	39·8	145	71	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	59	35	58·8	38·0	48·1	8·94	0·02	0·05
Birmingham ...	350164	44·7	279	130	60·0	36·6	47·9	8·83	0·14	0·36
Leicester	99143	31·0	110	41	60·0	36·7	48·7	9·28	0·00	0·00
Nottingham ...	88225	44·2	61	40	60·9	33·9	48·7	9·28	0·10	0·25
Liverpool	499897	97·9	383	265	59·3	39·0	48·5	9·16	0·03	0·08
Manchester ...	352759	78·6	292	190	62·0	41·0	49·9	9·94	0·03	0·08
Salford	127923	24·7	127	68	62·3	40·0	49·4	9·66	0·04	0·10
Oldham	84004	20·2	63	47	...	...	...	...	...	...
Bradford	151720	23·0	126	70	65·5	36·5	49·3	9·61	0·09	0·23
Leeds	266564	12·4	200	150	61·0	34·0	48·0	8·89	0·05	0·13
Sheffield	247847	10·9	221	117	60·2	32·0	47·4	8·55	0·01	0·03
Hull	121976	35·1	88	64	...	...	...	...	...	...
Sunderland ...	100665	30·4	114	64	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	113	67	56·0	34·0	45·5	7·50	0·00	0·00
Edinburgh	205146	46·3	128	140	62·0	34·0	47·7	8·72	0·00	0·00
Glasgow	489136	94·8	404	291	...	...	...	...	...	...
Dublin	310565	31·9	164	220	60·2	26·5	48·0	8·89	0·05	0·13
Total of 21 Towns in United Kingd'm	7394345	34·0	5840	3727	65·5	26·5	48·1	8·94	0·04	0·10

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·73 in. The highest was 30·14 in. on Sunday evening, and the lowest 29·23 in. on Thursday afternoon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page 245.*)

PART VI.

Pleurisy, a local inflammation producing its effects by its effusion, liquid and solid: Varieties: Serous: Empyema: Euplastic, Cacoplastic, and Aplastic Lymph—Treatment of Pleurisy—When, why, and how the chest should be tapped—Cases requiring operation—Successful cases without operation.

PLEURISY has by no means the same relations to the blood which I have pointed out to exist in pneumonia. Pneumonia is essentially a blood disease, although attacking a particular organ. Pleurisy is essentially a local disease; and its relations to the blood are incidental on the extent of the inflammation and the amount and quality of the effusion which it produces. We may further trace out the evils and dangers of pleurisy in connexion with these results under four heads:—(1) The quantity of the liquid effusion, (2) its quality; (3) the quantity of the solid effusion, (4) its quality.

When the quantity of liquid effusion is moderate, it is remarkable how little inconvenience it causes. After the pain (if any be present) subsides, which it commonly does in a few hours, or in a day or two, the patient often thinks himself well, till he finds on exertion his breath shorter than usual. Thus it frequently happens that the existence of the effusion is not discovered until long after it has taken place. Its easy detection by auscultation constituted one of the earliest and most striking triumphs of that mode of examination.(a) But if the effusion is very copious and rapid, the functional disturbance may be very great, in consequence of the extent to which the lungs, heart, adjacent organs, and chest-walls are pressed on and displaced. The symptoms are those of oppressed and restricted breathing, quickened, partially impeded, and weakened circulation, and deficient and depraved secretion; and, if these are not soon relieved, they may end in suffocation or exhaustion. Fortunately, in a large proportion of cases, medicinal treatment does bring relief; so that fatal cases of pleurisy with serous effusion are rare, and it is not often necessary to resort to the operation of tapping the chest.

The case is quite different when the effusion into the pleura is either purulent at first or is so charged with protein matter that it becomes purulent in the course of the malady. Pus, when once formed, is rarely dispersed or largely absorbed; and it remains in the pleural sac, not only oppressing and displacing organs by its bulk, as serum does, but also doing mischief, both by its solvent and irritative operation, exciting suppurative inflammation in adjoining parts, and tending to find vent through them, and also by its influence on the system through its partial absorption, causing irritative fever and other concomitants of pyæmia. It is very obvious, therefore, that the purulent quality of the effusion in the pleura increases greatly the gravity of the case, so that failures or imperfect recoveries are likely to occur if early relief be not given by tapping the chest. It is quite true that recoveries do take place, especially in young subjects, without any operation, by the matter making its way through the lung into the bronchial tubes, or outwardly through the walls of the chest; but in the first case there is great distress from the violent prolonged cough and expectoration, which must harass the patient for a long time, and cause much risk of permanent disease of the lungs; and in the latter case the matter often burrows in the walls of the chest, doing them more or less injury, before it is discharged through the surface. I have known several cases of empyema complicated with caries of the ribs; and in a few of these it has been difficult to say whether the caries was the sequel or the cause of the empyema; but in some it was clearly the former, and, by long maintaining an offensive wound in the chest-walls, materially retarded the local and general improvement.

In different cases of empyema there is some variety as to the quantity and quality of the pus formed. In some cases the quantity is large and continually increasing, so as to cause much pressure, displacement, and oppression in a short time, and if it does not speedily make its own way out, leaves no alternative between an operation and a fatal result. In other instances the matter is more slowly formed, with much less pressure and displacement, giving time for deliberation and hope that the effusion may be simply serous, until after the lapse of several weeks the frequent pulse and hectic symptoms, perhaps with some local signs of pointing in the walls of the chest, give evidence of its purulent nature. Again, in some cases the matter is inodorous—"laudable"—not differing from that of healthy abscesses; in others it is highly offensive, with the rotten-egg or sulphuretted-hydrogen stench characteristic of decomposed pus, quite distinct from that of fetid abscess which I have before described. Sometimes this fetor seems to be caused by diseased bone, but it certainly occurs also independently of that cause. I have known it in several instances follow the operation for empyema, where the admission of air was not prevented; but I can also recall several cases where no fetor ensued, although air was admitted. This offensive character of the matter must be regarded as unfavourable, both as implying its instability or proneness to decomposition, and also because the sulphuretted hydrogen evolved is deleterious in its influence on the animal economy. Nevertheless patients do sometimes recover, both where the matter originally discharged was offensive, and where it became so after the operation.

I have mentioned varieties in the quantity and quality of the *solid* effusion as tending also to affect the results of pleurisy, favourably or otherwise. When the lymph thrown out is in moderate quantity and of good quality (*euplastic*, as I term it), it is either absorbed, or forms soft, flexible, membranous adhesions between the pleuræ, which little, if at all, interfere with the movements of the lungs. This is a favourable result. But when the fibrinous exudation is very abundant (I recollect a case in which it was from half an inch to an inch thick on the inflamed pleura), it can neither be reabsorbed nor can it be so highly organised: it has more or less of the *cacoplastic* or contractile character, shrinking and becoming dense as it is organised—and, binding down the lung and drawing in the walls of the chest, causes those permanent contractions which are the sequels of severe pleurisy. Again, in highly scrofulous subjects we may have the inflammatory lymph entirely *aplastic*—thrown out in a curdy mass, devoid of all organisability, and yet in such abundance as nearly to fill the pleura. I remember the case of a boy aged 10, whom I saw twenty years ago, who was attacked with right pleurisy, and lingered for several months without any return of resonance or respiration on the affected side. After death the pleural sac was found full of soft, solid cheesy matter, not at all purulent, the lung being partly compressed, as is usual in pleurisy, and in other parts in a state of caseous consolidation.

The treatment which is successful in a large proportion of cases of acute pleurisy is chiefly antiphlogistic, and more local than in pneumonia. Venesection is required only in the plethoric and robust, and then only in the earliest stage of the sthenic form; but leeches or cupping may be used with advantage so long as there is pain with increased temperature. In very many cases there is little or no heat of skin; and in these I prefer a large blister at once, keeping it on not more than six or eight hours, and following it with a large poultice covered with oiled silk. This promotes the discharge from the blistered surface, and, acting as a comfortable

(a) *Note added in* 1872.—I take this opportunity to remark that some of the most recent writers on pleurisy seem neither to appreciate nor to understand the nature and value of the physical signs of pleurisy, which were nevertheless sufficiently explained and defined more than thirty years ago. In my lectures on "The Physiology and Diseases of the Chest," published in the *Medical Gazette* in 1838; in the article "Pleurisy" in the "Library of Medicine," vol iii., 1840; and in the last edition of my "Pathology and Diseases of the Chest," 1840, (now long out of print), the physical signs previously known were carefully considered, and new ones described with a precision that removed much perplexity from the subject, and made the diagnosis of pleurisy, with all its results, sufficiently plain to anyone who would take the trouble to master it. Although so many years have elapsed since the date of those publications, I have met with nothing in my own longer experience, or in the writings of others, to invalidate the statements there made. There may be found the first complete description of the varieties and signs of partial effusions in the pleura; the true nature and signification of ægophony; and the first announcement of tracheal and tubular sounds on percussion, the discovery of which Trousseau and others ascribe to Skoda, whose pretensions to it are of a much more modern date. My acoustic explanations of the noisy bronchophony and loud amphoric breath sounds of pneumonia are quite different from those of Professor Skoda. They were annually given in my lectures in University College before 1850; but as I hardly published anything on diseases of the chest for twenty years after, I do not think that they appeared in print until I mentioned the subject in a note in the chapter on physical signs in our recent work on "Pulmonary Consumption," p. 171.

fomentation on the side, may well be continued till the parts are ready for further blistering, should it be required. Of internal medicines, mercurial and saline diuretics are the best for the early stage of the inflammation. If there be severe pain, I give a few doses of calomel combined with morphia, till the pain is relieved, and then substitute small doses of blue pill, with squill and digitalis, two or three times a day, until an effect is produced on the bowels, kidneys, or gums. Salivation is by no means necessary or desirable, the best operation of mercury being on the liver and kidneys; and when these are brought to act freely, the effusion, if serous, generally is stayed, and will diminish—quickly in some cases, and very slowly in others—without any further active treatment. Saline diuretics of citrate and nitrate, or acetate, of potash are useful in most cases. In mild forms of the disease mercury is not necessary; blisters and saline diuretics are sufficient, and may soon be changed for iodide of potassium in a bitter infusion, with daily painting the affected side with tincture of iodine. But sometimes we meet with cases of extensive pleuritic effusion, which, either from original intensity or from not having been treated soon enough, will not yield to any or all of these remedies; and whenever the effusion is so much as to cause such distress in breathing as to interfere with the comfort of the patient, and especially to prevent sleep, there should be no delay in puncturing the chest. We may be more confirmed in recommending this treatment if the symptoms render it probable that the effusion is purulent, and we may often guess this to be the case when there is general pallor, with partial hectic flush, alternations of chills and sweats, very frequent pulse, much weakness and tremulousness of movement, and more than usual tenderness and puffy feeling of the walls of the affected side.

I must admit, however, that I have noticed tenderness and even swelling of the integuments of the walls of the chest in some cases which yielded to treatment without tapping, and probably were not purulent. Still the symptom is suspicious, and, if in conjunction with others above-mentioned, may be taken in favour of the effusion being purulent. In doubtful cases the grooved needle may be used to settle the point, if there be any question about the propriety of operating; but I would repeat that when there is great and continued oppression —such as to prevent sleep—I think the operation should be performed, whether the effusion is purulent or serous only. In case of serous effusion, tapping to the removal of two or three pints may be enough to relieve the oppression; the respiration and circulation being thus set free, the rest will probably be absorbed. But in cases of empyema it is desirable to evacuate more matter, and we may require repeated operations. As it is impossible to evacuate all the matter, a long time is required for the lung to re-expand, and for the pyogenic membrane to become covered with lymph, which obliterates the cavity by the adhesion of the pleural surfaces.

I do not propose to dwell on the details of the operation of tapping the chest, but I must remark that my experience is in favour of avoiding the admission of air if possible. I know that cases have done well where no attempt was made to exclude the air; but these were healthy subjects, in whom the matter resists decomposition, and whose constitution supplies a healing power in spite of difficulties. On the other hand, I have seen several instances in which serous effusion has become purulent, and purulent matter has become fetid, with the evolution of sulphuretted hydrogen, so shortly after the admission of air, that it was impossible to doubt the injurious influence of the air in those cases at least. In young subjects the walls of the chest are somewhat compressible, and by pressure steadily applied whilst the fluid is flowing, and continued till the puncture is closed, it is quite possible to prevent the admission of air without any special apparatus for this purpose. In older patients, in whom the chest is more rigid, this is less practicable; and of the various contrivances to prevent the admission of air in such cases, the simplest and most effectual is the attachment to the canula of the trocar of a few inches of a perfectly flaccid tube, such as rabbit's intestine, or soft, thin indiarubber, which permits the liquid to flow downwards freely, but, collapsing as the current flags, effectually prevents any air from passing upwards.(b)

The treatment after the operation, as well as for all the more chronic forms of pleurisy, should be of a sustaining and corroborative kind. The solid products of inflammation are the more mischievous in proportion as they degenerate; and they are more likely to be absorbed or to form harmless adhesions if the body is well nourished and under salubrious influences. A course of cod-liver oil with a mild tonic, a generous but not too stimulating diet, and moderate exercise in a healthy air, greatly conduce to convalescence, and may prevent many evil consequences. In cases of empyema with a permanent opening in the chest, little improvement may take place till the patient goes to a healthy country place or to the seaside; and then the discharge soon begins to diminish, and the health and strength are simultaneously improved.

On turning to my case-books to illustrate the successes and failures in the treatment of pleurisy, I find the cases successful without operation so numerous and commonplace that it would be superfluous to dwell on them. As samples, two cases will suffice—one in a young subject, the other in advanced age. (The latter and a third case—which exemplifies an imperfect success, which is not uncommon—have been added since the lectures were delivered.)

Case 1.—December 11, 1850: A young gentleman, aged 13, eight days ago, after long riding in the wet, was attacked (in the country) with sharp pain in left side, sickness, occasional fits of cough, short breath, and fever, with quick pulse and hot skin. Two days ago he was brought to town, and has been under the care of an eminent Physician, who prescribed only salines. The breathing has become worse, pulse 124, urine very scanty and high-coloured; pain less, and skin cool. Complete dulness and absence of breath and vocal vibration throughout left chest, and extending an inch to right of sternum, including dorsal spines, and pushing the heart two inches to right of sternum. Ægophony in mid regions. Breath-sound puerile on right side. Blister six inches square to left side. Blue pill, squill, and digitalis, and an effervescing saline every six hours.

14th.—Pain and breathing better; pulse 96; urine free, alkaline. Motions being loose and bilious yesterday, grey powder and Dover's powder given thrice daily instead of pills. Signs the same, except that the heart is three inches to right of sternum, and tubular voice and breath are heard in left upper front.

16th.—Breath better, but is faint from sitting up; urine alkaline. Dulness and displacements continue, but ægophony heard lower down in the back, and bronchophony within left scapula. Another blister six inches by three inches. Iodide and nitrate of potass in orange and cascarilla infusion substituted for the citrate of potass mixture. The blister rose well, and next day the gums were slightly affected. From this time the patient made a speedy and complete recovery, being convalescent in a fortnight. Examined four years after, the chest showed no signs of disease or contraction.

Case 2.—A distinguished Physician to the navy, aged 72, consulted me on November 15, 1863; subject to bronchitis in winter. Ten days ago, after exposure and chill, had sharp pain of right side, cough, short breath, restless nights, scanty urine; pulse 90, weak; respiration 30. Dulness from second rib down whole right front, and throughout side and back below spine of scapula; no breath-sound or vocal vibration; ægophony in mid-regions of side and back up to spine of scapula, where, and above second rib, bronchophony and tubular stroke-sound; heart-apex below left mammilla.

A blister six inches square to right side; blue pill, squill, and hemlock three times a day, with effervescing citrate of potass; nutritious diet, with a moderate amount of stimulants.

The kidneys soon acted freely, and the breath and restlessness were relieved. In a week another blister was applied, and iodide of potassium in a cascarilla mixture substituted for the saline and mercurial. After this the signs of effusion gradually diminished, and the health and strength were re-established in a few months under tonics, cod-liver oil, and country air. I did not see this patient after 1864, but I heard of him as pretty well in 1867, although suffering from cough. He died in 1868. This case shows that advanced age is no bar to success in the treatment of subacute pleurisy by the recommended means.

Case 3.—Master H., aged 10, June 26, 1863; previously delicate, but not ill till a fortnight ago, when he fainted at church. Since weak, with slight cough, pain in the chest, and shortness of breath, which has much increased in the last two days, and the left front of the chest is swollen. Complete dulness, without breath-movement or sound through whole of left chest and to right of sternum and dorsal spine; heart two inches to right of sternum; bronchophony above left scapula; protrusion and tenderness of intercostals about mammilla.

Citrate and nitrate of potass were prescribed, but I considered the case so urgent that I arranged with my friend, Mr. T. Tatum, the following day, to tap the chest. When he came we found the swelling and dyspnœa less, and, as the boy was

(b) *Note added in* 1872.—The more modern improvements in the operation introduced in the last ten years will be noticed in the next portion of the lectures.

very timid, it was agreed to postpone the operation, and try a blister in addition to the saline diuretic and a few nightly doses of blue pill. This treatment proved successful in removing the liquid effusion in three weeks, but the side contracted, and the penetration of air into the lung was imperfect. In the following August, under the constant use of cod-liver oil and tonics, with regulated exercise and diet, the lung expanded, and the youth outgrew the deformity, so that, in 1865, he was in good and active health, with little remains of the contraction. He continued well till 1867, when, at Harrow, he had another attack of inflammation of the left chest, which has recurred since repeatedly, and has induced chronic phthisis. He is still living, but in an invalid state.

(*To be continued.*)

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture III.

The *Simiidæ*, or anthropomorphous apes, constitute a natural group, composed of the gorilla, the chimpanzee, the orang-utan, and the several species of gibbons, or long-armed apes. The question which is the most *anthropoid*—and, therefore, should be placed first in the list—has provoked much discussion among naturalists, the fact being that in certain points of structure one of them, and in other points another, may approach most nearly to the highest grade of organisation; but a review of the *toute ensemble* of their characters has led to the prevailing idea that the gorilla is the nearest, while the gibbons are the most remote, from this grade. It must be remarked, however, that this conclusion has been arrived at with only a very imperfect knowledge of the anatomy of the first-named animal.

All naturalists who have had an opportunity of observing the three first-mentioned members of this group in a state of nature agree in assigning to them a strictly vegetarian diet, consisting chiefly of fruits, seeds, or succulent shoots and young leaves. It is possible, however, that the gibbons (whose habits when wild are very little known) may occasionally eat insects, or even small vertebrate animals, as a tame one has been observed to seize and devour a lizard.

Genus *Troglodytes* (Geoff. St. Hilaire).—*The Chimpanzee.*—It is still uncertain whether the considerable variations observed between different specimens indicate several distinct species, or whether all chimpanzees should be included under the one specific name of *Troglodytes niger*.

The large number of specimens which have been brought to Europe alive have afforded anatomists abundant opportunity of becoming thoroughly acquainted with the anatomy of this species; but, unfortunately, they have mostly been immature animals, and the bones, the muscles, and the brain have been more fully described than the organs which especially form the subject of this course. The chief peculiarities of these have, however, been more or less fully recorded in three excellent memoirs on the anatomy of the animal—those of Tyson, Vrolik, and Gratiolet and Alix.(a) It is partly from these, but chiefly from original dissections and examination of specimens in the Museum, that the following account is drawn up.

The aperture of the mouth is wide, extending as far back (at least, in a young animal with the milk dentition) as behind the upper canine on each side.(b)

The lips are large and extensile. The under lip especially is capable of being protruded forwards, assuming a spoon-like form when the animal is feeding. When the mouth is shut they meet by flat edges, and none of the mucous surface appears externally, as in man, the outer skin of the upper and under lips, covered with scattered short hairs, coming into apposition. The frænum connecting the inner surface of the upper lip with the gum is but slightly marked, and is quite absent in the lower lip, a circumstance which aids in its extensility.

The mucous membrane covering the gums is reflected back on to the lining of the cheeks, immediately behind the posterior molar teeth; and, though the cheeks are tolerably full, there are no distinct "cheek-pouches," such as we shall see developed in the inferior monkeys. The lining membrane of the lips and cheeks is smooth and soft.

The buccal cavity is nearly twice as long as broad. The palate very little arched, especially in its anterior part, which is marked by irregular transverse ridges. The isthmus of the fauces is extremely contracted compared with that of man.

The soft palate terminates in a distinct uvula, more pointed than in man, and the free border and apex of which, as remarked by Gratiolet, is formed by a very thin membranous border, which extends considerably beyond the thick tissues, which form, as it were, the nucleus of the uvula. The pillars of the fauces and the tonsils are developed much as in man.

The tongue is longer and narrower proportionally than the human tongue, its length being double its breadth, and the lateral borders are nearly parallel for the greater part of their extent. It becomes slightly broader anteriorly than behind, and is obtusely rounded in front. The anterior free portion is flat, with thin edges; posteriorly, the dorsal surface is more rounded, and the edges are thick, and it becomes much compressed from side to side as it approaches the isthmus of the fauces. About one-fourth of the whole length of the tongue projects beyond the frænum. Posteriorly, the median fold of mucous membrane connecting the dorsum of the tongue with the epiglottis is very little marked. The papillæ are much like those of the human tongue, the fungiform being scattered among the filiform in much the same proportion. The circumvallate papillæ offer some peculiarities. Huxley(c) compares their arrangement to a letter T with the top turned forwards, Gratiolet to a Y. I find that they vary considerably in different individuals, but that there is always a large one on each side, a little way in front of the junction of the anterior pillar of the fauces with the tongue, representing the anterior pair in the V-shaped set in man, two or three smaller ones in a transverse line between them, and two or three more in the median line behind these. If the transverse line is, as usual, quite straight the inverted T is the result; if, as sometimes happens, the middle papillæ of this line stand behind the others, the form is more like the Y. The usual number of the circumvallate papillæ is seven. The posterior part of the tongue, where it approaches the epiglottis, is beset with large conical soft papillæ, which are wanting in the human tongue. The vertical ridges, with deep depressions between, on the lateral edges of the tongue just in front of the palato-glossal fold, which are indicated in man, are in the chimpanzee very strongly marked. On the free under surface of the anterior portion of the tongue a pair of narrow projecting ridges or laminæ of mucous membrane, with a free wavy or crenated edge directed outwards, pass on each side of the frænum from close to the apex, backwards and outwards, for rather more than a fourth of the length of the entire organ, becoming gradually less conspicuous. As previously mentioned, similar folds exist in the corresponding situation in the human tongue, though not commonly described in anatomical text-books. The length of the tongue of an adult male chimpanzee, sent to the Museum in spirit from the West Coast of Africa by Captain Burton, from the epiglottis to the apex is 4·4 inches; the greatest breadth is 1·8 inch; the breadth between the palato-glossal folds is 1·1 inch. This tongue has probably contracted somewhat from the action of the spirit. The corresponding dimensions of a human tongue are 3·4, 2·1, and 1·8 inches. The frænum is long and loose, and on the lower part of its anterior edge are a pair of soft, pointed, conical, nipple-like projections, distinct from each other, and placed one on each side of the middle line, about one-tenth of an inch long, on the summits of which are the orifices of the submaxillary ducts.

The salivary glands and ducts are generally arranged as in man, but Gratiolet notices a greater relative development of the parotid.

Abdominal Digestive Organs.—The great omentum is broad, and in a young specimen in which I examined this point, was connected, much as in man, by its posterior layer with the whole of the transverse colon.

The stomach is large, in form much like that of man

(a) Tyson—"Orang-outang, sive Homo Sylvestris; or, the Anatomy of a Pygmie, compared with that of a Monkey, an Ape, and a Man;" London; 1699. Vrolik—"Recherches d'Anatomie comparée sur le Chimpansé;" 1841. Gratiolet and Alix—"Recherches sur l'Anatomie du *Troglodytes aubryi*" (*Nouvelles Archives du Muséum*, tome 2me); 1866. To these must be added the "Observations on the Anatomy of the Orang-outang," by Dr. Traill (*Mem. Werner Soc.*, 1817, vol. iii., p. 1), the animal described being really a chimpanzee from the Gaboon.

(b) In the adult specimen described by Gratiolet, "behind the second molar" (premolar?).

(c) Lectures in *Medical Times and Gazette*, 1864.

but the lesser curvature is rather shorter compared with the greater. The pyloric portion is more elongated, recurved upon the lesser curvature, and more distinctly marked off by a constriction from the rest of the cavity.

Tyson remarks that "The convolutions and windings of the *small guts* in our *pygmie*, and their situation, were much the same as in a *man*." He found the small intestine, from the pylorus to the colon, measured nine feet ten inches, and the colon and rectum three feet five inches, "so that the length of the guts here in proportion to the length of the body is much the same as 'tis in a man," though the colon "he thought proportionally longer." Gratiolet gives six metres eighty centimetres as the length of the small intestines, and about three metres as that of the large intestine—measurements which give a much larger proportion for the latter than those of Tyson.

Vrolik says, "The small intestines of the chimpanzee have the same situation as in man; the valvulæ conniventes and the villous tunic are found in them as in man." Other observers have not found any trace of valvulæ conniventes, and Gratiolet and Alix, in their dissection of a nearly adult specimen, expressly mention that, "Nous avons vérifié l'absence de valvules conniventes et la grand finesse des villosités."

The colon is very voluminous, and greatly sacculated by three strongly marked longitudinal bands, arranged as in man. It commences by a large conical cæcum about three inches long, terminating in a slender vermiform appendix of five inches in length in two young specimens I examined, but even longer in the adult. Its thickness is rather less than that of a goose-quill. The passage from the cæcum to the appendix is not quite so abrupt as it usually is in man, the latter opening into the former by a slightly funnel-shaped orifice; but there is great variation in this respect in different individuals of both species. The muscular bands of the colon can be distinctly traced to the commencement of the appendix. It is placed much as in man, though not quite so near the ileo-cæcal valve, thus representing the condition met with in man before it has fully undergone its characteristic alteration of form; but there appears to be considerable variation in its exact position, as well as in its length.

Fig. 6.

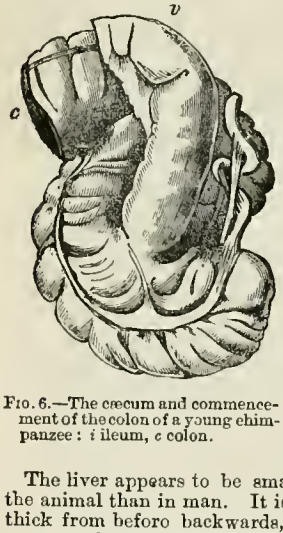


Fig. 6.—The cæcum and commencement of the colon of a young chimpanzee: *i* ileum, *c* colon.

As the appendix is double the length of the mesenteric fold which is attached to its inner border, it is coiled several times.(d)

The descending colon, at least in young specimens, is long, and the sigmoid flexure very large, and attached by a mesocolon of considerable length. Both ascending and descending colons are less firmly bound down than in man; but this is a point which must vary with age and in different individuals.

The *pancreas* generally resembles that of man in its form and relations. In the specimen described by Gratiolet it had two excretory ducts ("comme chez l'homme"), of which one opened directly into the duodenum, and the other into the *ductus choledochus communis*.

The liver appears to be smaller in proportion to the size of the animal than in man. It is compact and solid in form, and thick from before backwards, especially the right lobe. The upper surface much resembles that of man, the only indication of division being the well-marked umbilical notch and the attachment of the suspensory ligament, marking the separation between the very unequal right and left segments, the former being about double the latter in transverse extent.

On the under surface (Fig. 7), the umbilical fissure, *u*, is bridged over in the middle part of its course in two specimens examined, though to a different extent. The fissure of the ductus venosus is distinct, and the fissure of the vena cava is covered over by hepatic substance connecting the posterior margin of the right lobe with the Spigelian lobe in one example, while in the other the vein lies superficially.

There are no traces of lateral fissures subdividing the right and left segments or lobes. The Spigelian lobe, *s*, is prominent, with a rounded projection overhanging the portal fissure; but what chiefly distinguishes the liver from that of man is the development of the ridge, which in him represents the caudate lobe, into a distinct pyramidal—or, rather, trihedral—pointed body, *c*, connected at its base with the Spigelian lobe, but separated by a fissure for nearly the whole of its

Fig. 7.

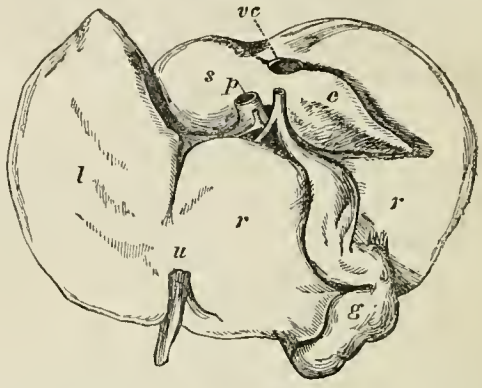


Fig. 7.—Under surface of the liver of a chimpanzee: *r* right lobe, *l* left lobe, *s* Spigelian lobe, *c* caudate lobe, *u* umbilical fissure, *p* portal vein, *vc* vena cava, *g* gall-bladder.

length from the under surface of the right lobe. Its apex reaches to more than half-way from the right end of the portal fissure to the right margin of the liver. This form of caudate lobe was found in both the specimens examined by me, but is not specially mentioned by Gratiolet and Alix, who show that they have not particularly studied the essential characters of the hepatic organ in mammals, when they remark that "this liver, as well by its form as by its size, bears more resemblance to the liver of those ruminants which have a gall-bladder than to the liver of man, of which the size is in relation to his, at least, semi-carnivorous instincts."

The gall-bladder, as noticed by Tyson, Vrolik, and Gratiolet, is very long, narrow, and loosely connected with the liver, beyond the margin of which it projects; and, as Tyson remarks, "when inflated with wind, seemed more to represent an *intestine*, by its *anfractus* and length, than the usual shape of the *bladder of gall*, which commonly is more bellying out."

The Gorilla.—Notwithstanding all the interest which has been taken of late years in this huge African anthropoid, and the elaborate care with which the external characters, the bones,(e) and the muscles(f) have been described, its visceral anatomy is at present almost entirely unknown.

Except a slight allusion to the liver by M. Broca, the only notice of the structure of the abdominal digestive organs yet recorded is the following, from the abstracts of Professor Huxley's lectures delivered in this theatre in 1864(g):—"The stomach is of the same form as in man, and the cæcum very large, and provided with a long vermiform appendix. The liver, in the only specimen examined, departs remarkably from the human type, inasmuch as both right and left lobes are subdivided by deep fissures." This description was taken from specimens in the stores of this Museum, and which, though in a very mutilated and partially decomposed condition, still afford the opportunity of adding some further details.

Duvernoy has figured and described the tongue and some other parts of the mouth. The caliciform papillæ are few, and present no regularity in their disposition. There was one large one on the left side at the base of the tongue, a large and a small one at the right side opposite to this, and four more behind, situated irregularly, and still smaller. The parotid glands are of large size, the submaxillary relatively small.

The stomach does not appear remarkably large, compared with the bulk of the animal. In its empty state, when laid flat on a dish, its greatest diameter is twelve inches and a half; its height, from the œsophageal orifice to the opposite point on the great curvature, seven inches. The lesser curvature measured six inches and a half, the great curvature thirty-one inches. The only apparent difference in form from that of the human

(d) Gratiolet's figure (Pl. ix., Fig. 6) shows a far more terminal (and therefore less human) position of the appendix than in either of the two specimens of chimpanzees dissected by myself.

(e) Owen, *Trans. Zool. Soc.*, vol. v.

(f) Duvernoy, "Des Caractères Anatomiques des Grandes Singes Pseudo-Anthropomorphes."—*Archives du Muséum d'Histoire Naturelle*, tome viii., 1855-6.

(g) *Medical Times and Gazette*, May 21, 1864, page 564.

stomach is caused by the great development of a constriction two inches and a half from the pylorus, marking off a "pyloric antrum," which is more elongated and bent back on the lesser curvature than the corresponding part usually is in man. The walls are thick and muscular. The mucous membrane is very loose and smooth in the cardiac portion; it is thrown into rugæ, most of which have a more or less longitudinal direction in the smaller or left end, as far as the constriction which marks the pyloric portion, which is chiefly formed by a strong crescentic ridge on the upper and posterior wall. Between this and the pylorus the mucous coat is smooth, very thick, and adheres closely to the muscular tunic, but all the coats are here thrown in several longitudinal folds. The pylorus is a circular aperture which will just admit the thumb.

Neither the duodenum nor any part of the small intestines show any traces of valvulæ conniventes, though the mucous surface is richly covered with villi. The length of the small intestines measured twenty-eight feet; but, as they had been divided into several portions before I examined them, it is possible, though not probable, that this might not have included the whole.

The large intestines are of great capacity, and, including the cæcum, eight feet and a half in length; so that the proportions of these viscera are much the same as in man. The walls of the first portion of the colon measure, when laid open, fifteen inches across. They are greatly sacculated, the usual three longitudinal muscular bands being strongly developed. In the cæcum and first portion of the colon, as far as a strong constricting band, extending all round the intestine, one foot from the apex of the cæcum, the mucous membrane is remarkably corrugated, being everywhere raised in ridges, which have a great tendency to form circles, from a quarter to a third of an inch in diameter, giving a general "pock-pitted" appearance to the whole surface. I have not observed a similar disposition in any of the allied animals. Unfortunately the cæcum is so mutilated that its true size or form cannot be determined, but the vermiform appendix remains attached to it, eight inches and a half in length, and of uniform thickness, about that of the barrel of a swanquill. It opens into the side of the cæcum by a small valvular orifice.

The *liver* is rather small for the size of the animal. After being a long time in spirit it weighed three pounds and a half. When lying on a flat surface it measures from side to side twelve inches, from before backwards six inches. The upper surface has a very large triangular space devoid of peritoneum, having been attached to the diaphragm. The suspensory ligament passes from this surface to the umbilical fissure, which is a well-marked notch on the free border, nearly an inch in depth, placed only one inch to the right of the middle line, so that the right and left segments are more nearly equal to one another than in man or the other anthropoid apes. The borders of the liver generally are very thin, especially the upper edge of the left lateral lobe.

Fig. 8.

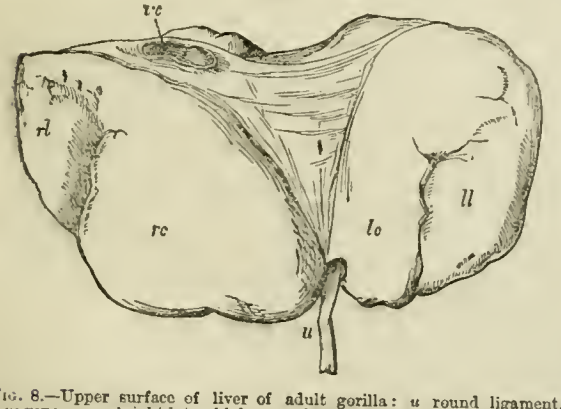


Fig. 8.—Upper surface of liver of adult gorilla: *u* round ligament, *vc* vena cava, *rl* right lateral lobe, *rc* right central lobe, *lc* left central lobe, *ll* left lateral lobe.

The left segment is divided into two distinct lobes by a cleft extending from the anterior more than half way to the posterior border. Of these the lateral, *ll*, is much the largest, and is triangular in shape. On the upper surface it is overlapped by the left central.

Similarly the right segment is divided into two lobes by a deep fissure; but of these the central, *rc*, is very much the largest, and of quadrate form, the lateral, *rl*, being small and triangular, and overlapped above by the central.

On the under surface the portal fissure is placed very near the posterior border, and is three inches in width. The duct, artery, and vein have their usual arrangement on entering it. The right and left fissures almost reach to its two extremities. The umbilical fissure extends for nearly two inches from the anterior border; thence to the portal fissure the round ligament is buried beneath the hepatic substance joining the right and left central lobes.

Fig. 9.

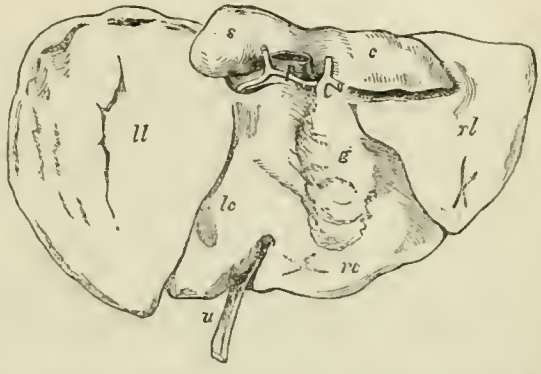


Fig. 9.—Under surface of the liver of the same gorilla: *u* round ligament, *p* portal fissure, *g* place from which the gall-bladder had been removed, *ll* left lateral lobe, *lc* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *s* Spigelian lobe, *c* caudate lobe.

The Spigelian lobe is small but conspicuous, narrow from before backwards, forming a prominent transverse ridge, continued into a trihedral free process, projecting to the left. Of nearly the same size is the caudate lobe, continuous with the Spigelian on the left, and passing as a ridge on to the under surface of the right lateral lobe, close to its posterior border, marked off from it anteriorly by a deep groove, and terminating in a pointed apex, free for the distance of one inch. This is separated from the right lateral lobe posteriorly by the great fossa for the vena cava, which fills the fossa, and is not bridged over by any hepatic substance.

The posterior part of the right lateral lobe is very little developed, so that the caudate lobe is unusually posterior in position. The distance from the left apex of the Spigelian lobe to the right apex of the caudate lobe is six inches; from the latter point to the margin of the right lateral lobe is an inch and a half. The gall-bladder had been removed from the specimen before it came under examination.

It will be of great interest to examine the liver of another gorilla, to ascertain whether the characters above described are peculiar to the species, though I have very little doubt but that such will be found to be the case.(h) The presence of the two great lateral clefts, though not quite so deeply marked as in many of the lower monkeys, completely distinguishes this liver from that of man or of any of the *Simiidæ*. It gives countenance to the views of those zoologists (as Isidore Saint-Hilaire, and Duvernoy) who separate the gorilla generically from the chimpanzee, and even lends support to Gratiolet's somewhat fanciful idea, derived chiefly from cerebral characteristics, that the gorilla is more closely related to the baboons, being the highest development of that section of the quadrumana, than it is to the other so-called anthropomorphs.(i)

(To be continued.)

Habitual Drunkards.—Statistics in reference to dipsomania or habitual drunkenness have been supplied to a Committee of the House of Commons by Mr. Mould, Superintendent of the Manchester Royal Asylum. Amongst other facts it was stated that about 15 per cent. of certificated lunatics were cured and about 7 per cent. of the dipsomaniacs.

(h) It is partially confirmed by M. Broca's statement that "Sur le gorille de M. Auzoux, le lobe droit est, il est vrai, subdivisé en deux grands lobes par une échancrure d'ailleurs peu profonde."—"L'Ordre des Primatés, Parallèle Anatomique de l'Homme et des Singes," p. 117. Paris. 1870.

(i) "Mémoire sur les Plis Cérébraux de l'Homme et des Primatés," page 55.

ORIGINAL COMMUNICATIONS.

ON MITRAL STENOSIS, WITH SOME REMARKS ON CARDIAC PATHOLOGY AND THERAPEUTICS.(a)

By ALEXANDER SILVER, M.A., M.D.,
Physician to Charing-cross Hospital, and Lecturer on Physiology in the Hospital School of Medicine.

(*Concluded from page* 310.)

In making use of cardiac bruits for the purpose of diagnosis we are wont to rely mainly on two things—their rhythm and their seat of greatest intensity. As regards this particular sound, its rhythm is plainly diastolic as far as the ventricle is concerned, and it immediately precedes the systole. It does not, however, occupy the whole of the diastolic period, but only its latter portion. At the apex no second sound is heard; so that this period of the rhythm is unoccupied, and constitutes an abnormal pause between the altered first sound and the new and superadded murmur. The bruit itself exactly fills the normal interval of the pause.

Then as to its site: that is not difficult to make out, for it closely corresponds with that spot where the apex comes in contact with the wall of the chest, rapidly diminishing in intensity if traced in any direction from this point; and as this is the only spot where the left ventricle reaches the chest-wall, we are fain to relegate the abnormality to that side of the heart—in short, to the mitral orifice.

So, then, we have to deal with a bruit originating at the mitral orifice during the period in which the ventricle is filling, but not occupying the full space of time so taken up, the period of the second sound being clear, and the bruit terminating as the first sound begins. But how do we ascertain this last fact? Three plans are open for adoption. The first is to compare the period of the bruit with the apex-beat; but in a case like this that is by no means easy, for vibration is too freely communicated to the chest and to the hand for us to readily discriminate the exact period of the apex-beat. Besides, there are other reasons, to which I shall not now refer, why some other sign of the ventricular contraction should be adopted as a guide. Obviously, the pulse suggests itself as a thoroughly reliable sign of the ventricular systole—and so it is, if due precautions be taken; if otherwise, it is not so. Here I am reluctantly compelled to disagree with the teaching of my lamented colleague, Dr. Salter, whose extremely interesting lecture on this subject may be fresh in the minds of some of you. He taught that the guide to be relied upon in forming a diagnosis, whether a bruit was systolic or presystolic, was the radial pulse. But I cordially agree with Dr. Hilton Fagge, who, in an admirable paper in the Guy's Hospital Reports, has pointed out that the proper test is the pulse indeed; but the pulse noted as near to the heart as possible—namely, in the carotids. To enforce this the more strongly upon you I have brought here to-night another patient the subject of a mitral bruit. I shall not discuss the question as to whether this man is the subject of mitral stenosis or no. There are certain signs which, to my mind, indicate that he is; but to confine ourselves to the bruit and the pulse. If tested by the pulse at the wrist, the bruit is clearly presystolic; if tested by the pulse in the neck, apparently as clearly systolic. There is a marked interval between the carotid pulse and the radial pulse, the reason of which we need not here consider; but the fact clearly proves the danger of relying on the wrist-pulse as a guide to the exact moment of the ventricular systole. In the boy whose case we are now considering, the bruit, whether tested by the wrist-pulse or carotid-pulse, is clearly presystolic. It occupies the whole period of the ventricular diastole, save that in which the second sound occurs—that is to say, this bruit occurs during the normal pause when the auricle is normally inactive, and also fills that period during which, in health, the auricle contracts.

To understand aright the origin of this bruit let us for a moment concentrate our attention on the orifice where the sound originates, during the full period of the ventricular diastole, and let us consider the motive powers concerned in driving the blood through it. As I have pointed out, the moment the ventricle begins to expand the blood rushes into it from the auricle. What is the motive force here? Not the auricle, for that does not act till later in the pause; and if not the auricle then it must be the pulmonary veins. It is true that, owing to the elastic character of its endocardial wall, and still more to its peculiar diastolic circulation, the heart has some self-dilating power which may ordinarily suffice to empty the auricle of its accumulated blood; but this force plainly enough does not suffice here. But inasmuch as these possess no self-contractile power of any importance, their action must be of the nature, mainly if not entirely, of a recoil on some previously distending force; and it is plain, on further consideration, that this distending force must have been that of the right ventricle. So thus we come to the conclusion that, up to the time when the auricle begins to act on its contents, the motive power concerned in driving blood from the left auricle into the left ventricle is the right ventricle acting through the vessels of the lungs—arteries as well as veins. This it is which fills the ventricle, the abrupt contraction of the auricle fairly distending it. And so, if any sound is produced through the agency of the force transmitted from the right ventricle, it should occur during the period of the second sound, or of the pause which in health follows this; and if it produces no sound during the former of these periods, there is no reason why it should during the latter of them. In the case before us no sound occurs during the former period—that of the second sound—but the bruit begins during the latter—that of the pause. It is clear, therefore, that the motive power which produces this noise must be looked for somewhere else than in the right ventricle; and as it is plain that the acting power in the next division of the diastole is the auricle itself, it is fair to infer that its contraction begins here earlier than usual, and is the sole motive power in producing this abnormal sound. The auricular systole is, so to speak, antedated, its force being necessary, not only to the distending, but also to the filling, of the ventricle, and so its action is prolonged—not in the usual sense, but in one which means beginning earlier rather than ending later than ordinary.

Confining our attention still to this portion of our case, let us try next to make out the immediate cause of the abnormal sound and thrill so characteristic. The factors are these: we take for granted a narrow orifice, through which rushes the blood-current, driven from behind by the right ventricle and the left auricle. The bruit and thrill must be the product of these. We think again, and we consider that only a portion of the time, during which these factors are at work, is characterised by sound; the first part is passed in silence. So, then, it is plain that blood may pass through the contracted orifice without giving rise to sound, provided only it is not driven too violently. This provides, therefore, by means of the force of the right ventricle, a certain amount of blood at rest, comparatively speaking, in the left ventricle before the violent effort of the auricle begins (and it begins earlier than usual) to drive the blood through this narrow orifice in sufficient quantity to fill the ventricle, and keep up the circulation. Well, we all know what is the result when a full-pressure tap of water is allowed to fall into a pool beneath—how sound is thereby produced; and, if delivered into a vessel of sufficient size, how the agitated water communicates its agitation to the receiving vessel. Now, this exactly applies to the condition we are examining, only for water we read blood—a more viscous fluid, and one which will consequently give rise to a slightly different kind of sound, and will affect the walls of the heart somewhat differently than water would. Nevertheless, I think we can fairly account for our churning sound and purring tremor in this way.

In working out this explanation we have taken it for granted that there is opposition to the flow of blood from the left auricle to the left ventricle, and we have also taken it for granted that this is due to contraction of the auricule-ventricular orifice. It may be fairly asked—What are the grounds for this opinion? and, supposing it justified, how are we to account for this condition of mitral stenosis?

Obstructions are of various kinds and degrees—from a slight roughening of the cardiac isthmus, to a narrowing through which the point of the little finger can hardly be passed. Of the former there may be but little sign beyond the bruit, but of the latter there must be physiological proof; for it is a law in animal mechanics, where repair and waste go hand-in-hand, that if an organ is called upon to do more work than usual—if this call is persistent, and sufficient time is allowed to arrange the compensation needed—the organ will strengthen as the demand for strength increases; and so the balance of life (almost of health) is kept even. If, therefore, we have here a considerable and permanent obstacle to the flow of the blood from auricle to ventricle, we should expect

(a) Communicated to the Medical Society of London by the President, Dr. Andrew Clark.

to find a compensating addition of strength to those organs concerned in driving the blood onward in its course. Now, the organs so concerned, as we have already seen, are the right ventricle and the left auricle; not one, but, if our theory be true, both. Referring again to the condition of the patient, we find it noted that there is a thrill in the third interspace not due to the ventricle; furthermore, that the apex beats too much to the right, though there is no bodily displacement of the heart from any cause; and that this beat is also felt in the epigastrium. In short, we have unfailing indications that the right ventricle is enlarged; of course it is a question whether by dilatation or by hypertrophy; but that too can be readily solved by further inquiry. There are no signs of dilatation, but there are evidences of, as well as reasons for, the existence of hypertrophy. There is no tricuspid regurgitation; no venous pulse in the neck; no enlargement of the liver or intestinal congestion, such as would arise from dilatation of the right ventricle; and so we are forced to the conclusion that there is only hypertrophy.

Moreover, there is no reason why there should be dilatation; all that is wanted is increased muscular power, which dilatation would not give, but would rather diminish. There is no increased stowage space wanted, for there is no regurgitation, and so, again, no reason for dilatation. It does not by any means follow that in course of years a heart which has habitually to fight against such obstructions may not, owing to accumulation of blood in it, become dilated. All I say is, that here, meanwhile, there is no evidence of dilatation, whereas we have every reason to believe that there is hypertrophy; and if hypertrophy of the left auricle is less directly evident, it may from the circumstances of the case, as well as from indirect evidence, be safely enough inferred as extant.

Supposing that mitral stenosis does exist, to what are we to trace its origin? In accordance with our ordinary beliefs the repeated attacks of rheumatic fever to which the boy has been subjected constitute ample ground *à priori* for supposing he might be the subject of valvular lesion. But I have here to point out that there is no evidence whatever of valvular lesion. We are apt, in our own minds, to confound the valves of the heart with the site they occupy; but of valvular disease there is only one certain sign—incompetence and regurgitation—and of that there is here no evidence. True, there is contraction of the mitral orifice, and this gives rise to an abnormal bruit; but the valves of the heart are intact; at all events, they fulfil their duties aright, for the first sound of the heart is clear, sharp, and ringing, altogether untainted with the signs of mitral regurgitation. Now, in rheumatic fever, it is the valvular instead of the more deeply seated structures which are most frequently attacked. In this way obstruction may arise as well as incompetence; but the condition I believe to exist here is one of true stenosis—narrowing of the mitral orifice—not of any excrescence from its surface. In dealing with the history of the case I have elicited the fact that as long as he can remember he has been unable to contend with other boys in running and such-like exercises. True, his first attack of rheumatic fever occurred when he was six years old, and no good history is to be obtained antecedent to that date. Nevertheless, it is well at the same time to bear in mind the fact that such bruits and such morbid conditions most frequently occur in badly developed youths—those who are characterised by badly formed chests, such as this boy has got; in short, are probably congenital rather than acquired.

Once more this case may be looked upon as in some respects peculiar; there is a diastolic, but no systolic bruit. This leads us to reflect upon the condition of valve and orifice which can give rise to such a phenomenon. The two malformations most commonly associated with mitral obstruction are—that when the two cusps of the valve grow together at either extremity, leaving only a button-hole-like slit through which regurgitation may also ordinarily take place; and that other form where, owing to a narrowing of the orifice, with some adhesion of the edges of the valves, the valvular apparatus projects, something like a funnel, into the left ventricle. With the latter malformation it is plain that regurgitation need not take place; the valves may fit perfectly—nay, more, projecting in this funnel-shape into the ventricle, they may, in closing, come together face to face, and not edge to edge, as is the case with the ordinary mitral valve. In the case before us there is no regurgitation, and the first sound is altered in a peculiar way. I think it fair to conclude that the condition of valve is funnel-shaped, for that would at once account for the absence of regurgitation and the alteration in the character of the sound. The sound becomes assimilated to the second just because the mechanism of the valve is assimilated to that of the semilunars, which touch not by edges but by surfaces.

It seems to me that this morbid condition throws some light on the normal sounds of the heart, the origin of which is even now uncertain. The second sound is doubtless connected with the semilunar valves, but the first has been assigned to various causes; chief among these are the closure and vibration of the mitral valve, the motion of the muscular mass of the heart itself, and the churning of the blood in the cavity of the ventricle. Now, of these, that relating to the churning of the blood has been already referred to, and accepted as the essential cause of the abnormal bruit here present. It clearly has nothing to do with the production of this altered first sound, whatever may be its importance in health. Whether the muscular contraction may produce sound is hardly within the range of our inquiry, but the researches of Ludwig and Dogiel show clearly that it can; but the short, sharp click of this first sound has none of the characters of a muscular bruit—it is essentially valvular, and, being so, tends, I think, to show that the ordinary first sound is not a purely valvular production, but is the outcome of all three factors already referred to. So that, though it is most convenient for us to think and speak of the valve action as being the main cause of the normal sounds, this is not absolutely correct.

But it is time for us to inquire how far the general symptoms conform to the state of things we have shadowed forth. If they do not conform, there is a chance that we are altogether wrong. Well, the main symptoms were these—breathlessness, cough, hæmoptysis, and irregular or intermittent pulse. To understand these aright, I must again invite your attention to the vascular connexions of the right and left sides of the heart. On the left side is an obstruction to the blood-flow, which has been sufficient to give rise to hypertrophy of the right ventricle, and as this could only be produced through the lung, a distended condition of the pulmonary vessels must inevitably be habitual. But this congestion is exceedingly likely to give rise to cough, and, if the blood-pressure becomes excessive, to hæmoptysis—two things we almost invariably find associated in a history of mitral stenosis. But the two other symptoms just alluded to are associated in like manner. To produce the sensation of easy breathing, due provision must be made for the removal of the blood from the lung, as well as for the renewal of air in it, and arrest of either will give rise to symptoms of dyspnœa. Thus it must be within the cognisance of all that one of the most prominent symptoms of syncope is what the patient calls want of breath—an indication still more marked in pulmonary thrombosis or embolism. In mitral stenosis the pulmonary vessels are habitually distended; the blood does not pass away freely; nevertheless, from long use the balance is fairly kept up, and the functions of life go on. But suppose the body called upon to undergo some exertion which demands an unusual supply of aërated blood; the forces for driving the blood through the lung and into the left ventricle remain the same. Any increased exertion for them means increased rapidity. But increased rapidity will not drive the blood faster through the narrowed mitral orifice; and so, the blood not escaping from the lung, there is speedily dyspnœa — it may be, from the increased blood-pressure, hæmoptysis—and irregular or intermittent pulse. For if the right ventricle works fast the left must do so also—their action being coetsneous; but if the right is full, the left, owing to this mitral stenosis, is not, and so there results an imperfect contraction, an imperfect ejection of blood, and so an irregular, or, if the pulse-wave be too weak to reach the wrist perceptibly, an intermittent pulse. This condition gives rise to much distress; the heart is beating powerfully but ineffectually, for it is out of equilibrium, and its force is spent uselessly. In point of fact I know of no more apt simile for this condition than that of a strong man, who is no swimmer, drowning in deep water. He beats the water with all his might, but his exertions are useless because not rightly directed; every succeeding effort serves only to exhaust him more and more, and to sink him deeper in the water; whereas, were the same force duly directed in the long and steady sweeps of the powerful swimmer, safety, instead of disastrous death, might ensue. Exactly the same terms apply to this form of heart disease.

There is one other point respecting the diagnosis to which I would allude. I have already pointed out that, in the case before us, the sounds at the base seem normal. In such conditions—*i.e.*, of mitral stenosis—it is not unusual, on listening at that situation, especially over the point where the two sides of the heart are joined, to hear two second sounds instead of one; that is to say, the pulmonary somewhat

before the aortic. Such reduplication, as it is called, is not now to be detected in the case before us, though at one time it was fairly distinguishable. Nevertheless, we may still distinguish between the characters of the sounds as heard on either side. That on the left side—I mean the pulmonic—is clear, sharp, and distinct, following quickly on the systole; that on the right—the aortic—is more prolonged, though beginning equally early with the other. The reason is not hard to seek; the difference in character is due to difference in tension in the two vessels. In the pulmonary artery the blood-pressure is greater than usual, and the valves close with a sharp jerk; in the comparatively unfilled aorta the blood pressure is less than usual, and so its recoil is less prompt, and the closure of its valves less speedy, and their vibration more prolonged than on the right side of the heart.

There is another condition which in certain respects is the exact opposite of this, and yet which bears to it in many respects a curious likeness. It is a fact now generally recognised, that in the chronic form of Bright's disease—that especially characterised by the small, contracted kidneys—there is a curious change in the minuter arteries. Their walls become hypertrophied, and their calibre diminished. As an immediate consequence, the blood-pressure in the larger arteries is increased, and the left ventricle, having exessive work to perform in driving the blood through these contracted arteries, becomes hypertrophied. And so in the arterial system there occurs a state of matters exactly similar to that in the pulmonary system in the case now before us. In that condition, too, if we listen at the base of the heart, the short, sharp second sound, the product of increased vascular tension, may be heard, but this time at the aortic orifice.

And now, having so fully discussed the diagnosis in such cases, a word as to their prognosis and therapeutics.

But before saying much on the subject of prognosis, I would beg leave to draw your attention to this one prominent fact: *heart disease commonly kills mechanically*, from interference with the circulation. It is true that in the so-called ulcerative endocarditis, or when what is called fibrine has been deposited on the valves, a portion may be swept away and set up disease elsewhere; but, as a rule, it is the interference with the circulatory functions which proves fatal. That being so, regurgitant disease, which interferes most with the circulation, which leads to dilatation, dropsies, and the like, is likely to prove more speedily serious than a simple obstruction which may be overcome by sheer strength—such as the force of a hypertrophied organ. But to form a fair estimate of the evil influence of mitral stenosis, we must compare it with two other diseases. The forces concerned in driving the blood through the mitral orifice are, as we have seen, the auricle acting close at hand, and the right ventricle acting through the pulmonary vessels. With these we should compare aortic stenosis and the contracted arteries of Bright's disease. In both cases there is hypertrophy of the left ventricle—but in the one case this organ acts directly on the obstruction, in the other through the greater systemic arteries—and we know what then happens: when the blood-pressure becomes excessive a weak vessel gives way, as the weakest part is bound to do; and as this commonly occurs in the brain, an apoplectic clot is the result. So, in mitral stenosis with hypertrophy of the right ventricle, there is risk of a weak artery giving way in the lung, and hæmoptysis with pulmonary apoplexy as the result. This, we know, does frequently happen, and this, or something similar, is the main danger to be dreaded. Were it not for this risk of intermediate rupture, almost any amount of power could be applied to overcome the obstacle. Nevertheless, with care the prognosis must be much more favourable than in regurgitant disease.

A word or two next as to the treatment of these and such-like cases, and I have done. The heart is not an organ we can touch and handle as we please, and yet we are able to deal with it almost as if we were—to make it go faster or slower, to make its beat powerful, or weak and uncertain; this we do through its nerves. I need hardly say that where hypertrophy is compensatory for difficulties in the way of the blood-stream, it is a thing to be encouraged; and therefore we must give iron, quinine, and such-like remedies, which contribute to the general strength. But I desire now to refer rather to those special remedies which rule the nerve-supply of the heart. This nerve-supply is derived from two sources—or perhaps I ought rather to say, from the same source by two channels. The source is the medulla oblongata; the one channel is the vagus, the other is the spinal cord and ganglionic system; the special ganglia concerned in the movements of the heart being the lowest cervical and two upper dorsal, which receive their motor filaments from the spinal cord.

Now, stimulation of the vagus slows, but does not necessarily weaken, the action of the heart (if very strong, of course it does both); so that gentle irritation of that nerve exercises on the heart an action similar to that of a fly-wheel on a steam-engine—it slows and steadies it. Now, we have seen that this is exactly what is wanted, and in digitalis we have a remedy which exactly answers our purpose; so that to it, combined with tonics, we must mainly look for overcoming the tendency to irregularity we have noticed as commonly extant.

But sometimes we desire a remedy which has the opposite effect—an effect nearly identical with that of section of the vagus—and such a remedy we find in belladonna. Its effects are most noticeable where digitalis does no good or does harm. I call to mind one case where a man had been taking digitalis. One day I found him in extreme distress, the heart beating feebly, tumultuously, and imperfectly. He promptly had the fifth of a grain of extract of belladonna injected beneath the skin of his arm, and in a few minutes he began to get better. In these two remedies we have two most powerful engines—engines which, it is true, require carefully handling, but which, being well handled, are capable of rendering good service. Nevertheless, they are only means to an end, and the end is only satisfactorily to be obtained by the avoidance of everything which will disturb the equilibrium of the circulation or of the economy at large.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. IV.

The Clinical Value of the Instrument—Typical Forms of the Pulse found in Intermittent Fever—The Puerperal State—Bright's Disease—Atheromatous Arteries—Paraplegia—Hepatic Dropsy—Phthisis—Dyspnœa.

(*Vide Plate published with Medical Times and Gazette, February* 24.)

The chief error to be guarded against when using the sphygmograph clinically is that of expecting too much from it. Many imagine that the upholders of the sphygmograph profess to have found in it a royal road to diagnosis. Nothing can be more erroneous and more certain to lead to disappointment. The information which the sphygmograph affords can only be looked upon as an important symptom in any disease; it teaches the pathology of the circulatory system, and in those diseases in which this is involved it is especially useful—it indicates the mechanical and vital conditions of the circulation, and affords information on these points unobtainable by other means. In some diseases it forms an aid to diagnosis, in many to prognosis and to treatment; occasionally a diagnosis may be based on its authority alone. Its sphere of usefulness is the widest possible, as it may be employed in all forms of disease, whether Medical or Surgical. Though in private practice it is of course unnecessary to apply the sphygmograph every time the pulse of a patient is felt; still, in Hospital practice, or wherever a case is carefully and scientifically investigated, surely the pulse deserves attention as much as the urine and the temperature. It might especially be employed with advantage in clinical teaching, for no teacher can impart to each member of his clinique the knowledge which his highly educated finger supplies him of the character of the pulse; but a student can easily learn to recognise and appreciate the movements which he sees recorded in a tracing. The progress of acute disease may be watched throughout by daily observations, and tracings thus obtained form a record as perfect, if not more so, than a thermometric chart.

The pulse-tracing of each individual in health possesses a constant form, dependent chiefly on the constitution and general habits; it may be hard or soft, large or small, good or bad tone, excitable or phlegmatic, and is as characteristic as the tone of voice or mode of carriage; but in disease the pulse loses this individual form, and varies with the general condition.

In the present paper it is proposed to give examples of a few leading types of abnormal pulses, assigning to each, as far as possible, the cause of its production, in order that in future observations on special diseases the presence of any complication affecting the pulse may be recognised, and due allowance made for it.

Tracings obtained from the apex-beat of the heart will occasionally accompany the corresponding pulse-tracings, owing to

the method adopted to obtain them, though, giving the leading characters, they are wanting in the finer details. For information on cardiographic tracings, reference may be made to the researches of MM. Marey and Chauveau, and the papers of Mr. Garrod on the cardiograph. The leading characters of the apex-beat recorded in the tracings are the following:—The mode of contraction, whether sustained or unsustained, and whether reaching its greatest intensity at the commencement or termination of systole; variations in rhythm; the presence or absence of a well-marked auricular contraction.

The first series of tracings in Pl. ii., published on February 24, were obtained from a case of intermittent fever; it will serve not only to throw light on the pathology of ague, but also to illustrate the various forms assumed by the pulse in acute disease, and especially the several degrees of dicrotism.

J. S., aged 27, was admitted into Guy's, under the care of Dr. Wilks, June 21, 1871. It will be unnecessary to enter into the details of the case, it being in all respects a typical one. Suffice it to say that he was a strongly-built and well-nourished man, by trade a brickmaker, and was suffering from well-marked quotidian ague of one month's duration. On June 22 (the day following his admission), at 12 noon, his temperature was 98·8°, pulse 84, and respiration 20, his condition being apparently normal. At 3 p.m. the cold stage commenced. During the rigors, which were very severe, his temperature rose to 104·4°, pulse 140, and respiration 30. The tracing obtained in this stage is represented in Fig. 1. His arteries may be seen to be tightly contracted; the pulse small and hard, six ounces of pressure being employed. The tidal wave is too convex—that is, the systolic expansion is sustained, owing to the contracted arteries permitting the passage of but a small wave, which is consequently prolonged. The characters of the pulse point to one condition for their production—namely, powerful sympathetic irritation acting through the vaso-motor nerves and contracting the vessels. The countenance at this time had a dusky hue; the veins were turgid—and, as we have seen the arteries contracted, if dicrotism depends on increased venous tension, surely now is the time that it ought to be apparent; but we do not find it at all prominently indicated.

The temperature continued to rise during the cold stage, and at 4 p.m., in the middle of the hot stage, the temperature reached 105·3°, pulse 132, and respiration 32. Fig. 2 represents the tracing now obtained. How great a change is apparent. The pulse is full and strong; the heart's contraction is sharp and powerful, six ounces of pressure being again required to develope the pulse-tracing. It is now extremely hyperdicrotic, the aortic notch being far below the line of the lowest points of the percussion upstrokes. A slight imperfection is noticeable in this tracing, indicated by the flatness of the bottom of the aortic notch; it is produced by the downfall of the lever being cut short by touching the framework of the instrument. According to Mr. Garrod's tables, the systole appears to be prolonged. As a reaction to the excessive sympathetic irritation present during the cold stage, vaso-motor paralysis now seems to have occurred, and the elastic coat comes prominently into action, producing the huge diastolic expansion. This has not time to subside before the next systole occurs, and the percussion upstroke is seen in the tracing. It was formerly thought that hyper-dicrotism occurred only in exhausted states of the system, or as a bad form of pulse in fevers; but here it may be seen to come and go in the course of a few hours, and must apparently be due merely to mechanical causes. The venous turgidity has now disappeared, and arterial distension taken its place; the countenance has become flushed by the dilatation of the arterioles and capillaries; the eyes bright, and the sensation that of extreme heat—the condition being exactly the reverse of the preceding.

At 8 p.m. the hot stage had given place to the sweating; the temperature had decreased to 104·2°, pulse 108, and respiration 36. The pulse had altered its character, as seen in Fig. 3; still full and strong, the same pressure being employed. The upstroke is seen to be very great, the tidal wave remarkably large, and the duration of systole prolonged. The pulse is still hyperdicrotic, but the diastolic expansion is comparatively slight. The vaso-motor nerves appear to be recovering themselves, and peristalsis is becoming re-established, so that the cardiac contraction with its aid is almost competent to carry on the circulation without producing over-distension of the aorta, and a consequently excessive degree of dicrotism. The febrile symptoms have to a great extent disappeared, and copious perspiration has taken place. At 10 a.m. the temperature was still falling, it being 100·6°, while the pulse was only 88, and the respiration 36.

At noon the following day his temperature was 97·8°, pulse 80, and the respiration 20. The tracing was similar to that represented in Fig. 4, which is the form the pulse always assumed while the condition was normal; the pressure employed was only three ounces, though this varied from three to five ounces. The pulse is seen to be very full, but the arterial tone bad. The duration of systole in relation to that of diastole has greatly diminished, and is now rather less than normal, the heart apparently requiring time to rest and regain strength after its excessive exertion. The temperature also is below normal. This decreased temperature was always present after an attack, and was most marked when the temperature during the attack had been higher than usual.

On the four following days he was injected subcutaneously with one grain of quinine at the commencement of the cold stage or a few minutes before it, but without checking the fever, though the cold stage was less severe, the time of occurrence of the attacks becoming two or three hours earlier than usual; and on three days the sweating stage was absent. The sphygmographic tracings obtained during the fever possessed the same characters as those already noticed, with the exception that the arteries were much less contracted during the cold stage, and the dicrotism was much diminished during the hot; but whether these effects were due to the quinine injection does not appear evident, for on the fourth day of its repetition the fever was almost as severe as on the first occasion, notwithstanding that the cold stage was diminished, this apparently being a constant effect of the quinine, which thus seemed to partially counteract the malarious poison. The tracings obtained on this day are represented in the plate. The cold stage commenced at 12·50 p.m., which was earlier than usual; he was immediately injected with one grain of quinine. The temperature was 102·6°, pulse 100, and respiration 32. The tracings obtained showed the arteries to be much less contracted than on the previous occasion, though the pulse was still hard, requiring six ounces of pressure, the systolic portion bearing rather more than its due proportion to the diastolic. The pulse is fully dicrotous. At 2 p.m., during the hot stage, his temperature had risen to 104·5°, pulse 136, and respiration 31. Though the temperature was not so high as on the 22nd inst., the pulse was more hyperdicrotic, though much softer, only requiring three ounces of pressure; the prolongation of systole was still more marked. It may be suggested that the apparent increase in dicrotism was owing to the diminished pressure employed; but this was not the case. If six ounces had been used the pulse would have been almost annihilated; and on the previous day, when also the pressure used had been three ounces, the temperature being exactly the same as on this occasion, the pulse was very much less dicrotic. These tracings demonstrate the incorrectness of the statement that the amount of dicrotism bears an exact relation to the temperature; but this will be still more evident in studying the continued fevers.

At 5 p.m., during the sweating stage, the temperature was 102·8°, pulse 100, and respiration 30, the pulse being hyperdicrotic, and the systole much prolonged, as on the former occasion. It was, however, very much softer, only requiring one ounce and a half of pressure. At 9.30 p.m. the temperature had fallen below normal, being 98°; pulse 74; respiration 24.

On the following morning ten grains of quinine were administered in a draught, and Figs. 8 and 9 were obtained before and after its administration. The following effects were produced on the pulse:—The rapidity of the pulse increased; the percussion-wave, excessive before the quinine, was reduced; the tidal wave was increased; and the duration of systole, too short before the quinine, was increased to its normal length after it. An attack of fever again occurred on this day; and, though the rigors were much decreased, and the duration of the fever shortened, the temperature was raised to the same height as on the first occasion. The next day, the dose of quinine being repeated, no fever occurred; and the same treatment being pursued, it never returned.

Figs. 11, 12, 13, and 14 in Pl. ii. represent tracings obtained in the puerperal state. The leading character of the first three is the fulness of the pulse, the tidal wave being more sustained than in the normal tracing; the general condition appears to be that of hyperæmia; the form of the pulse is similar to that accompanying hypertrophy of the left ventricle. This form of pulse appears usually to occur in the first stage of labour, and is, probably, persistent throughout, though the inconvenience of applying the sphygmograph in the second stage prevents any observations being obtained. It is, however, present after labour, and the fulness gradually disappears during the first week or ten days. Dr. Braxton Hicks

suggests that this character of the pulse may be due, not to the occurrence of labour, but to the hypertrophy of the heart said to take place during pregnancy. Sufficient opportunities have not yet presented themselves for me to ascertain the truth of this. Figs. 13 and 14 were obtained from a delicate, weakly woman, the action of whose heart during the first few days after labour was irregular, though no abnormal sounds were audible. The heart recovered its regularity, and the pulse assumed its normal form, as seen in Fig. 14, on the seventh day.

Figs. 15, 17, and 20 are types of a form of pulse found under two conditions—namely, Bright's disease and arterial atheromatous degeneration. The leading feature in each is the prolonged systolic expansion. This, though occurring in both conditions, is produced by different causes, and admits of distinction by one almost unvariable sign. Fig. 23 represents the tracing obtained from a woman in the clinical ward, under the care of Dr. Habershon, a few days previous to her death. She was found, on examination, to have the small contracted kidneys of chronic Bright's disease; the heart was hypertrophied, but not dilated; the muscular coat of the arteries had undergone the usual thickening, and were free from atheromatous disease. The tracing shows the contraction of the heart to have been sharp and forcible, producing a well-marked percussion-wave; this is followed by a full and well-sustained tidal wave, equalling in height that due to percussion, indicative of and produced by hypertrophy of the left ventricle; succeeding the tidal wave is a well-marked dicrotic wave, and then a secondary undulation during the diastole. Let it be noted that the pressure required to produce a perfect tracing was six ounces, indicating a considerable amount of hardness about the pulse. Fig. 16 is a tracing of the heart's apex; it is very imperfect, owing to the difficulty she experienced in holding her breath to fix the chest-wall. It indicates, however, the well-sustained contraction which accompanies hypertrophy of the heart.

Fig. 17 was obtained from a man admitted into Guy's, under the care of Dr. Wilks, suffering from the usual symptoms of the contracted kidney of Bright, the cerebral symptoms being especially severe. An autopsy revealed the same condition of kidney as in the former case; but the heart was more hypertrophied, and considerably dilated. This accounts for the greater size of the pulse and the increased pressure required—*i.e.*, nine ounces. Fig. 18 represents the tracing obtained of the apex-beat; it is more perfect than the preceding one. The tracing is characteristic of a hypertrophied heart, the contraction being powerful and well sustained, the summit of the tracing being square and broad, the period of systole prolonged, and that of diastole shortened, thus accounting for the tendency of the muscular fibre to degenerate from the want of its proper amount of rest, or time of repair. Fig. 19 is a tracing obtained from the same patient, immediately after an uræmic convulsion. The alteration in the pulse-wave is of a threefold character:—1st, the rapidity is greater; 2nd, the percussion-wave is increased, owing to a corresponding increase in the force of the cardiac contraction; and 3rd, the proportion which the systolic portion of the tracing bears to the diastolic is augmented. The other characters of the tracing are unchanged.

The next tracing in the plate (Fig. 20) presents very similar characters to those above noticed. It was obtained from a patient, under the care of Mr. Cooper Forster, suffering from popliteal aneurism, whose arteries had undergone extensive atheromatous degeneration. Arteries in this condition have much the effect produced by inelastic tubing on experimental tracings—the percussion-wave is always well marked, and distinctly separated from the tidal wave; the expansion caused by the tidal wave is prolonged from the absence of the steady contraction of the elastic coat producing a gradual collapse; the rigid artery is suddenly distended, and as suddenly collapses; the dicrotic wave is visible, but I have never found it much developed; and the secondary undulation during diastole due to the elastic coat is but faintly discernible, and often absent, while in the pulse produced by hypertrophy it is usually well marked. Lastly, the pressure required to obtain a perfect tracing is generally slight; the more calcareous the arteries, the lighter the pressure required. In this instance three-ounce was used. This is more than usual, one-ounce being frequently sufficient. The slight amount of pressure employed serves especially to distinguish between the pulse of atheromatous arteries and that of hypertrophy of the heart, as in chronic Bright's disease. Though Bright's disease has been referred to above, it is only as affording a type of pulse simulating that of atheromatous arteries, with which it is necessary to become acquainted, as it occasionally complicates other diseases; but the discussion of the pulse in the different forms of Bright's disease, and the mode of its production, must be deferred till a future occasion.

The two tracings represented in Figs. 21 and 22 have been introduced here to exhibit the effect produced on the pulse by loss of nervous power. Charles Y., aged 33, was admitted into Guy's Hospital on June 5, 1871, under the care of Dr. Wilks, in whose paper on "Diseases of the Nervous System," published in the Guy's Hospital Reports for 1872, a report of the case, with remarks, may be found. It will suffice to say that on admission he was suffering from almost complete loss of both voluntary and reflex movement, and partial loss of sensation in the lower extremities. The muscles of these parts were also insensible to the interrupted current of electricity. The upper extremities were also slightly affected, but the muscles replied to the stimulus of faradisation. About the head motion and sensation were perfect; there was no loss of power over the sphincters. He was ordered pot. iodid. gr. x., liq. hyd. perchlor. ʒj., ex aqua, to be taken thrice daily. This patient left the Hospital in a fortnight, recovery being complete. Dr. Wilks regarded it as either a mere functional disorder, or a syphilitic disease (which the history sanctioned), cured by specific remedies. The effect produced by the deficient nerve-power over the muscular coat of the arteries is well seen in Fig. 21, the pulse being large and soft, requiring only an ounce and a half of pressure, and the various waves remarkably distinct, owing to the diminished tension of the arterial wall. The same effect is produced on the pulse when blushing occurs, or by fear or excitement. Fig. 22 was obtained from the same man six days afterwards, when his condition had very greatly improved, he being able to walk with a stick. The nervous tone was restored, the pulse was smaller, harder (requiring four ounces of pressure), and the vibrations in the blood-column much less distinct, the percussion- and tidal waves being blended, owing to the increased tension of the arterial walls.

Figs. 23 and 24 are examples of well-marked dicrotism apparent in the pulse, produced mechanically, and by causes other than fever. In both these cases the pressure employed was considerable; the dicrotic wave must therefore have been of considerable power to be so well marked. In Fig. 33 it was caused by hepatic dropsy. The cause is evident, there being obstruction to the blood returning from nearly all the abdominal viscera, thus causing capillary obstruction throughout an extensive part of the circulatory system; and this is one of the chief causes of dicrotism, as we have seen above. In Fig. 24, obtained from a patient in the last stage of phthisis, the cause of the well-marked dicrotism is not clear; it may be due to the loss of power in the muscular coat of the arteries.

The last pulse in this plate shows an undulation in the respiratory line, the tension of the blood-column varying with each act of respiration. It was obtained from a lad suffering from extensive cardiac and pulmonary disease. This respiratory undulation appears to occur especially under two conditions—namely, when the heart is feeble and more especially dilated, or when there is much dyspnœa.

(*To be continued.*)

NOTE ON A CASE OF ATHETOSIS (?)

By C. CURRIE RITCHIE, M.D.,
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In his treatise on diseases of the nervous system, Dr. Hammond, of New York, has lately described an affection to which he has given the name *Athetosis* (from Ἀθετος, without fixed position), and which is "mainly characterised by an inability to retain the fingers and toes in any position in which they may be placed, and by their continual motion." The following may prove of interest, taken in connexion with a similar case under the care of Dr. Clifford Allbutt, which was reported in this journal for January 27:—

J. G., an engineer, aged 59, consulted me on October 10, 1870, in consequence of his having been for some time previously subject to involuntary movements of the extremities. He was a short, thin man, with sallow complexion and somewhat anxious expression. He had, however, always enjoyed good health till about three years before, when he began to suffer from occasional headache and giddiness. One day in November, 1868, when about to sit down to dinner, he suddenly lost consciousness, and fell to the ground. No account of involuntary muscular movements during this seizure could be elicited.

He remained insensible for about ten minutes, and was then put to bed, where he continued for five days. His speech was impaired for about three months afterwards. About this period (February, 1869) he noticed a slight sensation of numbness in the right arm and leg, accompanied by severe pain, which was worst at night. Shortly afterwards, curious movements began to occur in the fingers and toes of the right side; these were at first slight and under the control of the will, but they had gradually increased, and were now quite involuntary.

When I saw him, he could not flex the fingers of his right hand without the aid of his left, and even with this assistance seemed to have considerable difficulty in doing so. On desiring him to keep the right hand flexed and still as long as he could, in a few seconds, in spite of his efforts, the fingers became extended and assumed a variety of curious movements, which were continuous and somewhat complex in their nature. They began when the patient held out his arm before him, and took place slowly and deliberately; he could stop them by placing his right arm by his side and firmly grasping the wrist with his left hand. The movements usually consisted of alternate abduction and adduction, combined with partial flexion and extension; no regularity, however, was observed in their occurrence, and frequently the hand assumed a "sprawling" appearance, from the simultaneous abduction and partial extension of the radial and ulnar portions of the hand; sometimes the thumb would remain in a state of extreme abduction, while the little finger was semi-flexed and drawn across the palm. These movements were accompanied by a feeling of numbness and pain. The toes were almost always in a state of flexion, having their tips pointed to the ground. When he wished to extend the toes, he had to plant his heel firmly on the ground, and gradually draw the foot backwards, at the same time raising his heel. During these movements the muscles of the forearm and calf were hard and rigid. The tactile sensibility of the affected arm and leg, and also the temperature, were less than in the others. He suffered frequently from headache, which was always relieved by sleep; tongue tremulous; complained occasionally of vertigo and "flashes of light" before his eyes; articulation normal; intelligence fair. He had been a temperate, steady man; no history of tubercle or syphilis, congenital or acquired. There was no tenderness or pain on percussion over the spine. He was ordered ten-grain doses of bromide of potassium three times a day, and requested to see me again in a week, when, if there was no improvement in his condition, I proposed to employ galvanism for his relief. When he came to me on October 22 (twelve days after I first saw him), he told me that he had been able to do a little work, which he had not done for six weeks before, on account of the pain in his hand, which was now much relieved; the movements were not so troublesome, and he was able to sleep much better. He was recommended to continue the use of the bromide. I regret that I did not see the case again, in consequence of the patient having changed his place of residence; but, as it corresponds closely to the description of athetosis as given by Dr. Hammond, I venture to submit these details, imperfect as they are.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

SEAMEN'S HOSPITAL, GREENWICH.

[For the notes of the following cases we are indebted to Mr. H. Campbell Pope, House-Surgeon.]

CASES OF FRACTURED CRANIUM.

(Under the care of Mr. W. JOHNSON SMITH.)

Case 1.—*Compound Fracture of Cranium in Left Temporal Region —Death on the Seventh Day from Lesions of the Right and Opposite Hemisphere of Cerebrum.*

C. R., aged 37, was admitted on the morning of February 22, with injuries of the head and back, due to a fall into the hold of a steamer, a height of about twenty feet. He was brought to the Hospital immediately after the accident. On admission, the man was cold and pallid, and under the influence of well-marked shock. He was quite conscious, and there were no symptoms of either general or local nervous lesion. Immediately behind the left ear was a scalp wound, small in superficial extent, but laying bare a small portion of temporal bone. Above and behind this was another wound, still smaller, and very superficial. The integument between and around these wounds was much bruised, and there had been considerable hæmorrhage. The patient complained of intense pain across the frontal region, and also of great tenderness over the left sacro-iliac articulation, in which region, however, there was no swelling or any other symptom of injury of any important structure. He could move both legs freely, and the left as well as the right. Shortly after admission he passed about half a pint of clear and healthy urine. He was put in bed, and the ward was darkened; the scalp on the left side was shaved, and an ice-bag applied over the seat of injury. During February 22 and the following day the patient complained of persistent and very acute headache. Shortly after admission he vomited. The ejected matter was simply the contents of the stomach, and was unmixed with blood.

On the 23rd some calomel was prescribed, and in the evening he took a draught containing twenty-five grains of hydrate of chloral. From the morning of the 24th, after a good night, he progressed very favourably, and without any bad symptom, up to the evening of the 26th, when he became slightly delirious, and afterwards very drowsy. He slept very soundly during the night, but at eight o'clock on the following morning suddenly changed for the worse, and at the hour of the visit presented the following symptoms:—Insensibility and occasional unconsciousness, much restlessness, and incessant attempts to sit up in bed, stertorous breathing, paralysis of the left arm and distortion of the left side of the face, and retention of urine; the pupils were equal and normal in size, but did not act on applying or withholding the stimulus of bright light. These symptoms increased in intensity in the course of the following twenty-four hours, the most marked affection being excessive restlessness and even violence, which necessitated constant exertion on the part of a strong male attendant. The treatment during this stage consisted in the administration of turpentine enemata, and draughts containing bromide of potassium. On the morning of the 28th the patient became comatose, and rapidly sank. Death took place at 3.30 p.m.

Post-mortem Examination, 10.30 *a.m.*, *March* 1.—Moderate rigor mortis. Body that of a very muscular, well-developed, and well-nourished man; both testes enlarged; some small superficial ulcers about both patellæ; no old cicatrices on surface of limbs or trunk. There was considerable ecchymosis of left lower eyelid. About one inch posteriorly to the left pinna, and in a line with its upper margin, was a scalp wound about one inch in length. This communicated directly with bare and fissured bone. Four inches above this wound, and nearer to the occiput, was another small wound, which did not involve the whole thickness of the scalp. The whole scalp was much bruised, and the left temporal muscle was of a deep red colour, its fibres being contused and mixed with large masses of coagulated blood. On cleaning the surface of the cranial vault a fissured fracture (without depression) was found, coursing from the lower and back part of the left parietal bone across the squamous plate of the corresponding temporal bone and the outer part of the sphenoid bone, to the temporal portion of the os frontis, where it ceased immediately behind the external angular process. This fissure passed through the base of the lower scalp-wound, and here a piece of the external table of about the size of an apple-pip was broken off. No fracture could be seen at any other portion of the outer surface of the cranium. On removing the top of the skull, a thin layer of dry, granular, and dark-coloured clot was observed between the fracture and the subjacent surface of the dura mater. The vessels of the whole of the exposed dura mater were much engorged. On removing this membrane, the vessels on the upper surfaces of the cerebral hemispheres were observed to be large and distended with blood. The arachnoid was thickened and opaque, but very much more so over the right than over the left hemisphere. The arachnoid cavity on the right side contained dark semi-purulent fluid, and soft white flakes. The portion of cerebrum corresponding to the seat of fracture was paler, much less vascular, and more healthy in appearance than the rest of the surface of the organ. At the lower and external part of the convolution surrounding the Sylvian fissure there was extensive laceration of the cerebral substance, and the medullary portion of the hemisphere beneath was dark in colour and softened. There was also extensive effusion of blood in the middle fossa of the right side of base of cranium. The osseous processes and the edges of the cerebral impressions of the interior of the skull were in this patient very prominent, and at some parts quite sharp. On stripping off the dura mater from the base, it was found that the fracture in the temporal region had extended inwards for a short distance across the anterior fossa, and had detached the outer half of the left lesser wing of the sphenoid. No lesions were found in any other part of the body.

Case 2.—Extensive Fracture of Skull.

John M., aged 52, was admitted on December 16, 1871, at 6 p.m., with an injury to the head caused by a fall from a scaffold, a distance of about eighteen feet.

The patient was comatose and almost pulseless. Immediately to the left of the occiput was a scalp wound, about one inch in length, exposing bare bone and a linear fracture. No depression could be made out. The patient died about twenty minutes after admission.

At the post-mortem examination made on December 17 the following lesions were observed:—The whole scalp much bruised, and considerable effusion of blood under temporal aponeuroses. The fracture seen before death under the wound in the scalp was found to extend around both sides of the skull as far as the external angular process of the frontal bone on the left side and the centre of the temporal fossa on the right, involving the occiput immediately below its apex, both parietal bones, both temporal bones, and the left sphenoid and frontal bones. This fracture along its whole course had passed through both tables of the skull; but there was no depression or internal splintering. On examining the base of the skull, the roof of the left orbit was found to be fractured, and on the right side there was a fissure across the middle fossa, which was an inward extension of the fracture observed on the right side of the skull, the fracture along the anterior fossa on the left side being evidently an analogous continuation of the fracture along the left temporal region. There was considerable effusion of blood over the surfaces of the hemispheres and at the base of the skull, and also laceration of the brain substance in front and on the left side.

LIVERPOOL SOUTHERN HOSPITAL.

CASE ILLUSTRATING THE EASY REDUCTION OF DISLOCATION OF THE HIP-JOINT BY MEANS OF MANIPULATION AND TRACTION, WITHOUT THE AID OF PULLEY.

(Under the care of Dr. NOTTINGHAM.)

[Reported by Mr. HENRY HARVEY, Senior House-Surgeon.]

THE patient, T. R., aged 27, moulder, was brought to the Hospital on January 24, suffering from injuries caused by the sudden swinging round of a heavy crane, which threw him to the ground and inflicted a severe wound in the back.

On examination, there was found to be dislocation of the left hip, with more than usual shortening. To the left of the sacrum there was a deep lacerated wound, from which large quantities of dark venous blood were welling up. The wound admitted three fingers easily; it was plugged, with the effect of partially staying the hæmorrhage. The man died about two hours after admission.

After death, it was found that the wound communicated with the interior of the pelvis, which was completely fractured across the posterior part of the left iliac bone, with considerable displacement of that side of the pelvis upwards. Immediately after death, and of course before any rigor mortis had set in, the body was placed in the horizontal posture, the left thigh was seized by an assistant, who, bringing it into a position nearly at a right angle with the body, and having previously planted one foot firmly on to the brim of the pelvis, made steady traction upwards. The head of the bone, which was lying on the dorsum ilii, then readily slipped into its socket. After reduction had been effected there still remained some shortening, which was due to the displacement upwards of the fractured side of the pelvis. In effecting the reduction not more force was used than would have been employed in reducing an ordinary and recent dislocation of the shoulder-joint.

IN-GROWING NAIL.—M. Verneuil, in a recent clinical lecture, adduced many examples in order to show the fallacy of the usual statement that this is caused by the pressure produced by ill-made shoes. In the first place, it is rare to meet with it on both feet; and M. Verneuil refers to several cases in which it occurred in which the patient had, in consequence of disease or injury, been bedridden for months, or even years. "From all these facts," he observes, "must we not conclude that, if it is true that 'mechanical cause' may give rise to ingrowing nail, there are many cases in which this cannot be recognised? and in such are we not justified in regarding it as a dermatosis—as a dystrophic condition of the nail, produced under the influence of some circulatory or nervous disturbance?"—*Presse Belge*, March 3.

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Medical Times and Gazette.

SATURDAY, MARCH 23, 1872.

THE LONDON WATER COMPANIES.

ZEALOUS sanitarians have for years been contending for a constant water-supply to London houses, and recent legislation has brought it within their reach; but we suspect there are a good many persons who do not know what is meant by constant water-supply, nor yet what they will have to pay for it.

The common idea is, that cisterns of all sorts are to be abolished, and that the water is to be brought into every house (some have demanded it in every room), where, by merely turning a tap, fresh water may be drawn direct from the Company's "main" without the deterioration which it is subjected to in cisterns, exposed to all kinds of vapours and to heat. But it is manifest, at a glance, that two dangers at the least have to be provided against.

In the first place, if the pipes and fittings are not of great strength, they may yield to the constant pressure of water urged on by a force that suffices to drive it to the tops of the highest houses; or they may be injured by accident or by malice, and in either case the house would be flooded, and in a very short time enormous damage done to property, and the house be made as uninhabitable as if it had been half-burned. In the next place, without stringent precautions the waste of perpetually flowing water would be enormous.

For example, we well recollect hearing an experienced householder, years ago, say, "My drains are always sweet; I take off the ball-cock from my cistern, and let the water run away freely as long as it is turned on." Moreover, it is notorious that in poor houses all over London so inefficient are the cisterns and taps that the water runs profusely through the closet when turned on, and thus cleanses that source of mischief. But, on the other hand, if the lodgers do not come and catch it in their tubs and pitchers, they will have no supply till the next day.

Now, no Company's store of water could stand such waste as this if the flow were constant. It is perfectly reasonable, therefore, and is secured by law, that the Companies should be protected, the fittings such as to guard against accident and waste, and that the Companies may make regulations, which, when duly advertised and sanctioned by the Board of Trade, shall be binding on the public. The existence of such proposed regulations was duly advertised by all the Companies in the *London Gazette* of February 27 and in the daily papers, with a notice that they might be inspected at any of the Companies' offices during the ensuing month.

An inspection of these proposed regulations will be a disagreeable surprise to anyone who holds the simple Arcadian views of the matter which we have described above.

In the first place, with the exception of a few houses of the poorest class, it is proposed that every house must have cisterns capable of holding twenty-four hours' consumption; and "constant supply" will be found to mean, not drawing water direct from the main, but the having the cisterns kept constantly full. Then, in order to prevent bursting of pipes, they must be made of such weight per foot, in proportion to the bore, as will satisfy the Company; they must be connected with the main, and laid at a given distance under ground to protect them from the frost; the ball-taps, to shut off the water when the cistern is full, must be approved by the Company; waste-pipes, to allow of surplus water running away surreptitiously into a drain, will be prohibited; the waste-pipes must be "warning pipes"—*i.e.*, so placed as to cause a visible stream of water to give warning of an overflow; "waste water preventers"—that is, certain machines which only allow a certain quantity to flow at a time, on once turning the tap—will have to be put to water-closets, pipes, and sinks; baths will be under regulations as to their overflow-pipes—and, in fact, wherever this system is introduced, the householder will be subject to constant visits of inspectors, and must submit to have entirely new water-fittings, which the engineer of one of the Companies told us would cost about £20 for a house worth £100 per annum, and this entirely at the cost of the householder.

This new system, with proper provision against waste, will doubtless be a great improvement in the case of the worst class of houses; and, by the way, all *waterbutts* are to be done away with. But for persons whose cisterns are ample and well placed, it is a boon which we do not see the value of. One thing is clear, every prudent householder will shut off the water when he locks his doors at night.

There is no doubt that the water-supply of London is groaning under the huge monopoly of the Companies. We pointed out, two years ago, that the East London Company was spending half a million to bring water from the Thames past the door of the New River Company. This useless expenditure will have to be paid for in the shape of water-rates.

We see the presumed effect of impure water in the frightful mortality of Holland. At Utrecht, for example, the death-rate in 1871 was 435, and at Rotterdam 456 per 1000—almost double that of London. At present, with regard to the Thames water, our cry must be for efficient filtration, public and private.

FORESTERS AND PROVIDENT DISPENSARIES.

The Committee and Medical staff of the Plymouth Provident Dispensary have been called upon to decide a very important question, and, in our opinion, they have decided most justly. A Court of Foresters applied for admission to the benefits of the institution in their corporate capacity. The Court numbered 270, and the annual subscription for the Medical attendant was 3s., that to the Dispensary being 4s. 4d., besides an entrance-fee. The Dispensary authorities determined not to accede to the request of the Foresters, mainly, apparently, because they dreaded that they in their own corporate capacity would be likely to come in collision with the Court in a similar capacity; but they seemed to hold out hopes that the men, if they came individually, might be accepted. At all events, their cases would be considered, as would those of anyone not being a Forester. It is true that some of the members of the Committee seemed to think that admitting such a body would injuriously interfere with practice in the town, whilst some seemed to think that the members of the club belonged to a class above that which the Dispensary was intended to help. Both were, we think, quite right. This is the first attempt of the kind; but if this system of Provident Dispensaries offers superior advantages to clubs, no doubt the men immediately concerned will be wise enough to see that, and will strive to take advantage of them, and it is important that a definite line of action should be taken up by the Profession. We have no great love for the Provident Dispensary system, for we have no belief in the regenerating influence it is supposed to exercise on the minds of the thriftless poor. Mankind cannot be regenerated at the rate of ninepence or even thirteenpence per quarter; if it could, the money would be well spent. We hold the Provident Dispensary system a mischievous thing, inasmuch as it tends to introduce the idea of aid to men who are and should be independent. Moreover, it may be used as a means of cruelly aggrandising one Practitioner at the expense of another. These evils we have insisted upon before, and here is one of them exemplified. A Court of Foresters comes and seeks admission to the benefits of an institution which we take to be, in part at least, supported by charity. Heretofore they have engaged some independent Medical man to attend upon them, and it is evident they have been able to secure the services of such in an independent fashion. Were they admitted to the Dispensary, they would be reaping the benefits of a charity at a nominal cost, and their former Medical attendant would be the worse off by the amount he formerly received from them. Neither, we take it, are things to be desired.

When Provident Dispensaries have been established it behoves all concerned to see that they are properly worked; and this we greatly fear is not generally done. Plymouth may be an exception, but we do not think the following looks like it. Their bill begins thus:—"Plymouth Provident Dispensary.—The Committee desire to make it known to the public that *all* persons can provide themselves and families with Medical advice, attendance, and Medicine, etc." We cannot think this is so—there must be some qualification; and in the interests of their brethren the Medical gentlemen belonging to the institution are bound to see that no improper cases are admitted. This is the more important, inasmuch as those who take Provident Dispensary work are of the same class as those who are excluded. They do not belong to the consulting class of Practitioners, as do Hospital Physicians and Surgeons, and in some instances such appointments are made to unfairly handicap men in the race of life.

If Provident Dispensaries are to be adopted, the system imperatively demands that there be an efficient working committee, so as to insure that no improper candidate be admitted; secondly, that every Medical man in the neighbourhood be invited to join in working the Dispensary. A member having been admitted, he should be at liberty to carry his card to whom he pleases, and the gentleman so selected is entitled to his share in the funds of the Institution. They talk of the out-patient system at Hospitals as having a pauperising effect on the public: we cannot see anything more likely to pauperise our Profession than the Provident system inefficiently worked. The rule in this country is to encourage self-help. To substitute a Provident Dispensary Committee for a Court of Foresters or a Lodge of Odd Fellows is not a step in the right direction. It may be more efficient and it may be more economical, but we question if even these advantages outweigh the value of independence. We are heartily glad that the Plymouth authorities have decided not to take such a step in the wrong direction.

THE WEEK.

TOPICS OF THE DAY.

The changes introduced by Mr. Cardwell's new system of localisation and transference of head-quarters of militia regiments are likely, we are informed, to inflict a serious loss on those of our brethren who serve as Militia Medical Officers. Mr. Cardwell, in his answer to Mr. Wheelhouse last week, said that Militia Surgeons would not be required for attendance on the staff, nor for the inspection of recruits; but he presumed

they would be required during the annual training. It seems that there are nearly 100 Militia Surgeons in England and Wales, and a correspondent informs us that the average annual income of each of these gentlemen for attendance on the staff and the inspection of recruits, apart from their training-pay, calculated on the last twenty years, has amounted to about £100. The total amount of revenue to the Militia Surgeons for their duties has been, therefore, on an average £10,000 per annum. This the present economical Government intends to abolish. We hope that the Militia Surgeons will obtain representatives in the House of Commons, who will take care that at least their interests shall not suffer, except it can be shown that a large and unmistakable benefit to the public service must accrue—a result which, we suspect, Mr. Cardwell will have some difficulty in demonstrating.

The question of admitting cases of measles into the Metropolitan Fever and Small-pox Asylums was last week discussed by the Metropolitan Asylums Board. Dr. Cortis supported the opinion that cases of measles should be admitted on the same grounds that cases of scarlatina and typhoid are received. Sir M. Beach, M.P., and Mr. J. G. Talbot, M.P., argued that the Legislature never had any intention of providing accommodation for cases of measles. Dr. Bridges, the Government Inspector, also gave his opinion that it would be unwise to admit them. In this, as far as ordinary cases of measles are concerned, and in ordinary epidemic constitutions, the Profession would be generally, we think, agreed. It would be wrong to expose a child suffering from ordinary measles to the chance of catching typhus or small-pox by sending him to one of these Asylums. But, on the other hand, it must be remembered that at certain times, and amongst the children of the poor in unhealthy districts, measles assumes an epidemic and malignant form which might well qualify its unfortunate victims to be received into a public Hospital for contagious fevers. Such conditions, however, are exceptional, and ought to be met exceptionally.

Mr. Dale, of Scarborough, has had to vindicate his Professional character by bringing an action for libel against a Mr. Strickland Constable, of Wassand, near Hull, who has attacked him in a pamphlet entitled "Letter on Vaccination to a Medical Practitioner from H. Strickland Constable." The plaintiff, Mr. Dale, was requested to revaccinate the daughter of the defendant in March last. This he did, using all care in the selection of the lymph and the performance of the operation. On the evening of the day on which the child was vaccinated, a rash showed itself on the child, which proved to be the rash of scarlatina. The child was attended by Mr. Dale, Dr. Hutchinson, and Mr. Taylor until April 4, and her parents then put her under the care of a homœopathic practitioner. The defendant published his pamphlet containing the libel complained of, dedicated the first edition to Mr. Dale, and sent copies of it to the most influential of Mr. Dale's patients. The counsel for the plaintiff, Mr. Digby Seymour, said in his opening speech that "thirty-five pages of the pamphlet were a continuous libel on the plaintiff's skill and knowledge, as regards his treatment of the defendant's child, both in revaccinating her and his subsequent treatment, as well as his want of skill in other cases. The plaintiff was not alluded to by name, but no one reading the pamphlet and being acquainted with him could mistake for whom it was intended. The pamphlet, in fact, charged him with ignorance, incompetence, mercenary motives, and unscrupulousness in his Profession, and neglect and disregard of its duties." The case was tried at York on March 19, when Mr. Marson, of the Small-pox Hospital, Mr. LeGros Clarke, and Mr. W. D. Husband, of York, proved that the rash could have nothing to do with the revaccination. After hearing the evidence, the defendant's counsel, Sir John Karslake, made an apologetic speech, in which he stated that the defendant had written and published his pamphlet under the firm belief that his child's serious illness was the result of the revaccination. After hearing the evidence, however, he felt that view was untenable, and he apologised for the statements he had made and the injury he had done the plaintiff. Mr. Digby Seymour said that the object of Mr. Dale in bringing the action was to vindicate his character, and not to obtain damages, and that he accepted the apology on the understanding that all charges of Medical and moral malpraxis were withdrawn. A verdict was then entered for the plaintiff, the defendant undertaking to pay all his expenses. We think that Mr. Constable got off very cheaply.

Mr. Ruskin has withdrawn all claims to the Rectorship of St. Andrews University. It is proposed to elect Professor Huxley.

Amongst the law reports of last week is a case in which it was sought to recover damages for the loss of two valuable colts killed by eating the clippings of a yew tree, which it was alleged had been carelessly thrown on the plaintiff's premises. Cattle have often been killed by eating yew.

The *London Gazette* of Friday, March 15, announced that on the preceding day the Queen conferred the honour of knighthood on Dr. John Rose Cormack.

Mr. Liebreich's theory, that the decadence in colour to be observed in Turner's and Mulready's earlier and later paintings is really to be ascribed to colour-change in the humours and lenses of the eyes of those distinguished painters, which he broached in his recent lecture at the Royal Institution, is a very ingenious one, and is quite worthy of investigation. For our own part, we do not think it in any degree accounts for what the *Saturday Review* calls Turner's "colour-madness"—for the vast chasm, for instance, between the glorious "Crossing the Brook" and the white-and-yellow daub of "Going to the Ball." Brain-change as well as eye-change can alone account for such a deterioration. But still, Mr. Liebreich's theory is very suggestive, and a thoroughly scientific one. He will only be amused by Mr. Ruskin's characteristic criticism in the *Pall-mall Gazette* of March 16—"That Mr. Liebreich is an ingenious and zealous scientific person. The public may derive much benefit from consulting him on the subject of spectacles—not on that of art."

Dr. Quain's Lumleian Lectures "On the Diseases of the Muscular Structure of the Heart" at the Royal College of Physicians are just now of particular value, because they recall the attention of the Profession to the great fact that, practically speaking, the condition of the propelling organ is the vital matter, that of the mere outlets and valves is only comparatively of secondary importance. All who have had much experience in heart disease will recall cases similar to those related by Dr. Quain, where persons have gone on to extreme old age with undoubted valvular disease, which, as long as the muscular structure of the heart was sufficient to overcome or compensate, was absolutely of no importance. Another point which Dr. Quain brings out is the serious increase in heart affections in our male population between the ages of 20 and 45—no doubt attributable to the high-pressure living of the present day. The evidence by which he is establishing hyperplasia of the connective tissue of the hear in some cases of cardiac enlargement is also a point in these lectures which should not be missed. To-day (Friday, March 22) he treats of Fatty Degeneration, Rupture, and Aneurism.

SANITARY REPORTS, AND GRUMBLINGS THEREON.—LEEDS; BOMBAY; DR. BRYDEN ON THE INDEPENDENT EXISTENCE OF EPIDEMICS.

Dr. Robinson's report on the sanitary condition of Leeds for the year 1871 speaks to the eye, for it contains two capital maps, showing the habitat of every patient affected with fever

or small-pox in the year 1871. The spots where the two diseases prevailed are almost identical. We hope that some day, out of the mass of material accumulated by Officers of Health, Dr. Ballard, or someone equally competent, will deduce some law whereby the relative or alternate prevalence of each may be explained; for, as things are now, it seems as if we expel one epidemic only to make way for another. Thus (says Dr. Robinson), during the last six years, typhus has declined, typhoid has increased; measles goes down, scarlatina takes its place; if there is a decrease in zymotic mortality one year, there is an increase the next—there were more deaths from zymotics in the last three than in the first three of the six.

We very much doubt the policy of including diarrhœa amongst the zymotic diseases, because, although we fully believe that it is, under many circumstances, infectious, yet by far the greatest number of cases clearly arise, not from infection or the spread of a ferment, but from the influence of heat and improper food on infants under one year. Nothing is a better test of the moral and physical condition of a population than their ability or not to rear their young children.

The more we read of sanitary reports, the more we see that conditions prevail in towns and villages which Medical Officers of Health may report on and condemn, but which they are helpless to prevent. For instance, Dr. Robinson says that, "*if* the Building Clauses Committee could be induced to expunge the by-law which permits the building of back-to-back houses, still further sanitary progress would be made." Of course it would. But what a fact this is: that, past the middle of the nineteenth century, landowners should be permitted to build human pigsties in which fresh air is unattainable. It is some comfort to learn that the Sanitary Committee of Leeds have determined to buy up and destroy 293 of the most unwholesome houses, and that the midden system is to be abolished.

Dr. Robinson's report contains one provision of unusual liberality, to the effect that in any new epidemic hospital provided by public authority patients may, if they choose, be attended by their own Medical advisers. This provision would remove much of the objection which many persons feel to entering such institutions, and thereby losing the services of their own Medical advisers. There are many institutions for persons of the better classes to which such liberality might well be extended.

Dr. Hewlett's report on the health of Bombay for the fourth quarter of 1871 takes us into a very different part of the world, but we meet with the same well-known evils—zymotic disease, defective sewerage, and impure water-supply. Of 3914 dead bodies, 2582 were buried, 1097 were burnt, and 235 taken to the Tower of Silence, to be devoured by birds, after the Parsee custom. Prostitutes are submitted to a weekly examination, and less than this is not sufficient in Dr. Hewlett's opinion; but of 275 names added to the list of prostitutes during the quarter, very nearly one-half were of widows, who may be supposed to have been victims of want.

Dr. Bryden, the Statistical Officer attached to the Sanitary Commissioner with the Government of India, has issued a clearly reasoned "Note on the Epidemic Connexion of the Cholera of Madras and Bombay with the Cholera Epidemics of the Bengal Presidency." This "Note" is in reply to the conclusions of Mr. Cornish in his "Report on Cholera in Southern India," and the question involved is, "What is Cholera, and How does Cholera Move?" Is there such a thing as a cholera miasm, having an existence and a life of its own, existing apart from mankind, and transported by the wind; or is the cholera dependent on the human race for its existence and movements? Dr. Bryden upholds the former, Mr. Cornish the latter view; and Dr. Bryden in this "Note" supports his own view by reference to the great cholera invasion of 1818. We could not enter into a discussion of the matter without details and maps which we cannot introduce. We will observe thereupon that in India, where earth, air, and water, as well as the human race and its appurtenances, must be pretty thickly sown with cholera seeds, the conditions of diffusion must be more complex and uncertain than in Europe, where cholera appears rarely, and every step can be traced; and on this point we would call attention to the Rev. Dr. Haughton's paper, which appeared some time since in this journal, in which he demonstrates the propagation of the disease in Ireland by human intercourse only. Secondly, it is curious to notice the kind of independent existence which these writers ascribe to a cholera epidemic—speaking of its *life* and its *death*, its *life-period*, etc. "Every student of the natural history of disease in India," says Dr. Bryden, "knows the broad fact how, when *cholera and malaria die*, typhus and small-pox step forward to take their place; and how, when typhus and small-pox die, cholera and malaria resume their sway"—a dismal, but only too well ascertained fact. Now, as these diseases seem to be alternate, but not mutually exclusive, is it not probable that each depends on some special condition of human impurity, and that what we want to learn is, What can we do to destroy this impurity at its roots?

Dr. Bryden has favoured us also with a "Report on the Age and Length of Service as affecting the Sickness, Mortality, and Invaliding of the European Army," which gives a terrible history of the cost in human life of our Indian possessions. There is one class of diseases which affect the young soldier on first landing, others that affect the old soldier; and it is a significant fact that a man above 30 is regarded as an old soldier. Dr. Bryden tells us in his concluding paragraph what has been in eight regiments the result of twelve years of Indian service amongst men who landed with the regiments when they came out to India. The aggregate of the body on landing was 5836. Out of this body 676 men embarked for England with the regiments on their return. The deficit of 5160 was made up thus:—Died, 1356; killed in action, 89; invalided for wounds, 64; invalided for disease, 1226; discharged, time expired, 1129; purchased their discharge, 131; transferred to other regiments, or removed otherwise, 1165. In round numbers, during twelve years' service, a fourth of the men die of disease; a fourth are invalided for disease; the deaths and invaliding for wounds do not amount to 3 per cent.

Dr. Bryden shows, with the utmost clearness, that young soldiers suffer from fever, heat apoplexy, and dysentery; old soldiers from heat apoplexy, hepatitis, and intemperance. His commentary on the causes of death will command the most earnest attention of the statesman who desires to diminish the drain of English lives. His observations on the typhoid of India are appalling. It is a disease which especially attacks the young recruits during their first hot season, and, as he believes, may be self-developed, but, however engendered, is pre-eminently infectious and contagious. It is not known amongst the natives, as tested by the experience of the native army and gaol population. He shows that one form of lung infiltration leading to phthisis is a consequence of typhoid.

MILITARY POST HOSPITALS.

Under the title "Circular No. 2—Approved Plans and Specifications for Post Hospitals, Surgeon-General's Office, Washington, July 27, 1871," the War Department of the United States has issued a short but most comprehensive account of the construction of Hospitals for military posts. Provision is made for earth-closets, and for warming and ventilation; and in malarious regions and Southern climates the sick are to be accommodated on the first-floor. Let us observe that the "first-floor" or "first storey" of a house means that which is above the ground-floor—*au première*, as the French say. It is perplexing to have a divergence of meanings, even on an unimportant point.

GUY'S HOSPITAL BIENNIAL FESTIVAL, 1872.

Guy's may well be proud of its *esprit de corps*, which is especially shown at its biennial gatherings. On Friday, March 15, 289 sat down to dinner in the large hall at Willis's Rooms, King-street, St. James. Old Guy's men from all parts of the country met together, and some few guests were invited. Those guests present were the President, Treasurer, and Chaplain of the Hospital; the President of the Royal College of Surgeons, and the Master of the Apothecaries' Society (Dr. Burrows, the President of the Royal College of Physicians, being prevented from attending); Lieutenant-Colonel Beresford, M.P. for the borough; Mr. John Locke, M.P.; and Mr. Amphlett, M.P., Q.C. After the usual loyal toasts, that for the "Army, Navy, and Volunteers" was responded to by J. W. Jeston, Esq. (for twelve years—from 1812 to 1824—in the army during the Peninsular War, with Lord Wellington, at the battle of Salamanca, and throughout the rest of the campaign), J. T. Musgrave, Esq., and Lieutenant-Colonel Beresford respectively. The toast of the evening was—"Success to the School of Medicine and Surgery attached to Guy's Hospital." Then followed others—viz., "The President, Treasurer, and Governors of Guy's Hospital," by Dr. G. Owen Rees; "The Universities and Royal Colleges, and the Society of Apothecaries," by R. P. Amphlett, Esq., M.P., Q.C., the uncle of one of the present students at the Hospital; "The Medical and Surgical Staff, consulting as well as acting," and "The Teachers in the School of Guy's Hospital," to which Mr. Cock, Sir W. W. Gull, and Mr. Birkett responded; and finally "The Honorary Secretary, Mr. Durham." We may here add that this gentleman deserves the thanks of all old Guy's men for the efficient and cordial manner in which he works, and succeeds in making these biennial festivals comfortable and enjoyable. The whole arrangements of the meeting, and especially those by which nearly every man was placed amongst his friends, must have given enormous trouble to the Honorary Secretary; but it must be gratifying to him to feel that the result was appreciated. Another source of pleasure was the musical element, which was contributed by the Guy's Hospital Glee Club. This gave great satisfaction, and the men who sang, entering as they did so thoroughly into the spirit of the gathering, roused much more interest in their performances than could be produced by those of ordinary professional singers.

MEASUREMENT OF TEMPERATURE BY THERMO-ELECTRICITY.

Mr. Siemens, in a discourse at the Royal Institution on the evening of March 1, took for his subject the method of measuring temperature by the application of thermo-electricity. After a few preliminary remarks, the lecturer proceeded to state the purpose he had in view—to explain the principle, and demonstrate the use of an instrument which he had succeeding in contriving to supply a present double want—namely, the means of estimating the temperature of places practically inaccessible, and of estimating temperatures exceedingly high. Hitherto the particular effect of heat which physicists have most frequently availed themselves of, in the instruments they have devised to determine its amount, is that of the expansion or contraction of the body which the heat affects; this is seen in Galileo's air thermometer; in the ordinary thermometers in daily use; as well as in pyrometers—for example those of Wedgewood and Daniell. In respect of the pyrometers, the lecturer showed that they were by no means thoroughly reliable, from this very principle on which they worked; and it was to replace these instruments by one that could be absolutely depended upon that he had availed himself of the electrical effects of heat in estimating its amount. Before, however, describing his new pyrometer, Mr. Siemens illustrated some of the principles of thermo-electricity by experiments. The powerful influence of a very small increment of heat at one point in a galvanic current was first demonstrated by the deflexion of the magnetic needle it produced. Two symmetrical thermo-piles were next produced, each in the form of an iron spiral on a wooden cylinder, the whole being enclosed in a silver tube. The wires of the two being connected with a differential galvanometer, it was found, as was to be expected, that as long as the piles were subjected to exactly the same temperature, the needle remained at zero; whilst, on the other hand, the least alteration of the temperature of either pile was followed by a visible deflexion. By way of example, the lecturer placed the one pile in a vessel of warm water, the temperature of which was known by an ordinary mercurial thermometer it contained, and the other in the hand of the President—Sir Henry Holland. At once the needle was deflected, proving that the amount of heat affecting the two piles was unequal. So far the measurement was comparative only, but it was easy to make it positive. For example, the temperature of the President's hand could be taken by heating, or by cooling (as the case might be) the water surrounding the first pile until the needle pointed to zero, when the mercurial thermometer in the vessel of water was found to indicate the temperature of the skin in contact with the second pile. One manifest advantage of this method of determining temperatures is, that by it the heat of inaccessible places may be accurately estimated. For example: of the sea at any depth, one thermo-pile has in this case simply to be sunk the necessary distance, and the other with the galvanometer kept on the ship's deck.

Here we might ask, Could not this means of estimating temperature by the thermo-pile be made more available than it at present seems to be for the determination of the relative amount of vital heat in the different parts of the body? The ease and accuracy with which their relative heat could thus be determined might, we should hope, have the happy result of bringing to a more satisfactory agreement the conflicting statements with which we are at present supplied on the subject. The principle has indeed been made use of: on one occasion with which most of us are familiar, in the experiments of Mr. Simon upon the temperature of inflamed blood. Two small thermo-piles of platinum and iron, sharpened terminally into pins, so as to be readily pushed into the tissues, were inserted into different vessels, and the relative heat of the blood which these contained accurately determined by the deflexion of the needle of a galvanometer. By this means Mr. Simon was enabled to state that the blood returning from an inflamed limb is warmer than that going to it, and warmer, also, than the blood of the corresponding uninflamed limb.

After the illustrative experiments which we have mentioned, Mr. Siemens proceeded to describe his new pyrometer. This consists essentially of a cylinder of fire-clay supporting a platinum spiral, from the extremities of which the wires are conveyed in a protecting metal tube. The thermo-pile so constructed is subjected to the heat, whose amount has to be estimated; and the relative effect on it and on the second pile is estimated, not by a galvanometer, but by a voltameter. To illustrate to the audience the use of his instrument, Mr. Siemens estimated in succession the temperature of melting ice, of boiling water, of molten lead, and of iron at a dull red heat. Even the last, however, is low compared with the exceedingly high temperatures which have been measured by this pyrometer, which is already in frequent use.

SMALL-POX JOTTINGS.

In Aberdeen the return of small-pox cases last week shows—Total number of cases admitted at the Hospital since opening, 132; new case admitted on the 14th inst., 1; number of patients at present in Hospital, 38; total discharged recovered, 76; total died, 18.——Two deaths occurred last week from small-pox in Mile-end Old Town.——In the Limehouse district there had been no death from small-pox in the past fortnight, and only three fresh cases brought under notice.——In the Stockwell Hospital, during the past fortnight 63 patients had been received; 4 died, and 53 were discharged, leaving 117 at present under treatment, as against 111 at the date of

the last return. The number of fresh cases during the last fortnight has been higher than in the preceding one.——In Homerton Hospital, during the two weeks ending the 12th inst., there had been 63 admissions, 7 deaths, and 24 discharges, leaving 125 under treatment.——In the Poplar district, in the past week, 4 deaths from small-pox were registered in the union, and 12 new cases were brought under notice. In the same period 65 persons were vaccinated at the public stations. There were at that time 4 small-pox patients under treatment in the North-street Infirmary.——Dr. Whitmore, in his report to the Marylebone Vestry last week on the question of epidemic outbreaks, observed that "it is useless to expect either to shorten their duration or lessen their frequency unless some legislative enactments be passed which shall effectually prevent personal communication or intercourse between the infected and the healthy. Neither pure water, efficient drainage, or free ventilation will prevent one person from taking small-pox or fever from another if the two come into personal contact. I have been often astonished and disposed to form a very low estimate of the feelings of natural affection common to the poorer classes to observe their total disregard of precautionary measures when any of their children are suffering from contagious and infectious maladies; but what surprises me more is that some Medical Practitioners will be content to attend a child forming one of a family of six or eight persons through an attack of scarlet fever or small-pox, and will take no steps for isolating it, although the entire family occupy at most but two small, dirty, ill-ventilated rooms. Pauper cases have in this respect great advantage."——Twenty-four deaths occurred in Sheffield from small-pox last week. The deaths from the disease in the three previous weeks had been 37, 38, and 24. Considering the frequent and severe epidemics of small-pox which have recently prevailed in the borough, the continued neglect of vaccination is remarkable. Of the 24 deaths from the disease last week, 14 were unvaccinated cases, 1 was reported as vaccinated, while the 9 were not stated as to vaccination.——Dr. Aldis reports one case, vaccinated, which was sent to the Hospital.——The Registrar-General's return for the year 1871 shows that in London alone 7876 persons died from small-pox, and that during the same period 13,174 deaths occurred from the disease among the population of seventeen large English towns.——There was only 1 death from small-pox in the City last week.——Two fresh cases of small-pox during the past fortnight were reported in the Holborn district.——Forty-two deaths occurred in London from small-pox last week.——In Dublin 51 fatal cases of small-pox were reported last week, against 37 and 41 in the two previous weeks. At nearly all the Hospitals a fresh increase of the epidemic in extent and severity has been experienced during the last fortnight. The hæmorrhagic form has been very frequently observed.

TANNER PRIZE AT KING'S COLLEGE.

A LITTLE over £150 has been received towards the proposed Tanner memorial. Before closing the subscription-list, we are asked to state that whatever sum of money is collected will be handed over to the Medical Board at King's College to invest, and with the interest to establish an annual prize of books or instruments, to be selected by the student proving himself by examination most proficient in Obstetrics and Diseases of Women. A prize of this kind is much wanted, and it is hoped, therefore, that many King's College men will join in making the amount worthy of the name of Tanner, and of the College of which he was a distinguished member. Subscriptions are to be forwarded to Dr. Percy Boulton, Treasurer, 6, Seymour-street.

FROM ABROAD. — SUPPOSED DEATH FROM CHLOROFORM — THE FRENCH TEMPERANCE ASSOCIATION—FIBROID TUMOURS OF THE UTERUS—COMBINATION OF INJECTION OF MORPHIA WITH INHALATION OF CHLOROFORM.

M. TRÉLAT brought recently (*Gaz. des Hôpitaux*, March 5 and 9) under the notice of the Société de Chirurgie a case of "Sudden Death during an Operation," in which the question arose whether this was due to chloroform or to the admission of air into the veins. The patient, who was 32 years of age and in good health, was operated upon for the removal of a small tumour at the anterior edge of the sterno-mastoid, this tumour having appeared in the angle of the wound left six weeks before after a similar operation successfully performed under chloroform. On the present occasion, complete resolution was produced by chloroform; and the first incision had hardly been made when the patient was found to be colourless, and without pulse or sounds of the heart. In spite of all attempts at resuscitation, he died. At the autopsy a small vein opening into the external jugular was found to have been obliquely opened. The jugular contained a long clot segmented by some bubbles of air; other bubbles existed in the mediastinal and posterior cardiac veins. The right ventricle contained a notable quantity of air, and some small ecchymoses were the only thing remarkable observable in the lungs.

Although air was thus found in the veins, M. Trélat felt disposed to attribute some influence to the chloroform; for while death at once and finally takes place when it is due to the admission of air, life during the efforts made in this case was for an instant partially restored. M. Perrin was of opinion that death here arose from the chloroform. On closer examination, cases of death from admission of air are found to be much rarer than supposed; and M. Claude Bernard, in his experiments on animals, rarely found air enter in consequence of wounds of the neck. The bubbles of gas observed in the veins in this case were probably due to putrefaction and decomposition of the blood. In attempts at restoration, M. Perrin believes that insufflation by means of a tube passed into the trachea, and a bellows, is a far superior means to the from-mouth-to-mouth procedure, or to Marshall Hall's procedure. There is little fear of lacerating the pulmonary tissue or of inducing emphysema. M. Le Fort, on the contrary, believed that death was due to the admission of air, and that chloroform should not be charged with it. He had met with a case very analogous to this one. Performing tracheotomy for asphyxia in laryngeal phthisis, the trachea being very short and the thyroid gland very large, immediately after the incision along the median line, which gave rise to a large flow of blood, the patient dropped down on the bed quite dead. After chloroform, the patient is at first blue, and then pale, death ensuing in a less rapid manner. At the autopsy a large vein which had been divided contained air, and through it this gained access to the large veins and the heart. In attempts at resuscitation, M. Le Fort prefers Sylvester's procedure. M. Giraldès believed that death here was produced by chloroform, and he referred to various cases of death from it in which air was found in the veins. M. Sée took a similar view, and did not believe in the admission of air, inasmuch as the vein was small and superficial, and not gaping; there was none of the characteristic sound which takes place when air enters, and after death there was no intimate, spumous mixture of air and blood. The air found resulted from incipient putrefaction, such as is indicated in the marbled appearance of bodies which are still fresh. M. Depaul, on the contrary, believed that chloroform was not here the cause of death. The openings made in the veins in the cases of MM. Trélat and Le Fort constitute the capital fact; and any explanation of the presence of air by putrefaction is defective, inasmuch as the air was only found in the divided veins and those which led from them to the heart, the other veins being devoid of it. He has no confidence in any treatment but insufflation; but while he thinks as highly as M. Trélat of its performance by a tracheal tube, he has a good opinion of the efficacy of the from-mouth-to-mouth procedure. M. Blot could not see how the effect of the entrance of air here could be denied, but he at the same time admitted that the chloroform may have contributed

to the result by preventing the individual from reacting against the effects of such entrance of air. Such entrance was the primary cause of death, although the state of complete resolution in which the patient was facilitated the fatal issue. He advanced cases to show that the admission of a small quantity of air need not be fatal, and patients who have not been chloroformed can better resist its effects. M. Demarquay believed that death had resulted from the chloroform, relying chiefly on the fact that the blood was not spumous, as it would have been had a sufficient quantity of air to cause death been introduced. A small quantity may be introduced with impunity. To appreciate the quantity contained in the vessels, the autopsy should be performed under water.

It seems strange, in face of the gigantic organisations in America and England which have been so many years in operation, that France has still her first "Association against the Abuse of Alcoholic Drinks" to organise. The Committee appointed for this purpose consists exclusively of Medical men, and, although these are of high position, it is to be regretted, in reference to the influence to be exerted upon society at large, the aid of other classes has not been sought. The annual subscription, too, of 20 fr. is far too high to allow of any extensive co-operation of the poorer classes, whose enthusiasm and energy have done so much for the cause of temperance in England. A nominal subscription of a franc or two, with donations from wealthier members, would be more likely to set the Society afloat. A mere society of Professional persons will occupy too much time in dissertations on evils which everyone acknowledges, and employ too little actual exertion in securing the active co-operation of the masses. One of the proposed objects of the Association tends in this direction, and, if realised, will also check adulterations which so much add to the mischief. It is "to favour, principally by means of co-operative societies of consumption, the replacing of spirituous liquors as the ordinary drink by means of coffee, natural wines, beer, and cider."

That the Association has ample justification for its appeal may be seen from some of the figures which it publishes, indicating an "alarming progression in the abuse of alcoholic drinks." While, in 1820, the consumption of alcohol was only 350,000 hectolitres, it increased to 585,000 in 1850, and to 970,000 in 1869, without comprising the amounts which escaped the excise dues. In 1850, of 950,000 hectolitres manufactured in France, 850,000—*i.e.*, nine-tenths—were the product of distillation of the vine; but in 1869, of 1,410,000, the vine only furnished 410,000—scarcely three-tenths. The remainder was produced by the distillation of beetroot, molasses, grain, and other farinaceous substances. The hectolitre of alcohol, which in 1850 was worth 200 fr., is at the present time sold for 50 fr., and the number of places for the sale of drinks has progressively increased to one for 102 inhabitants. Some of the consequences of this increase of consumption have been disastrous. Between 1849 and 1869 the annual number of deaths due to excessive drinking increased from 331 to 587, and that of suicides from the same cause from 240 to 664. Crimes against the person, committed under the influence of drink, have increased in like proportion. The unfavourable influence exercised by the habits of drink, not only in increasing the amount of disease, but in imparting a character of exceptional gravity to even slight surgical and internal affections, is proved by results which are causing more and more anxiety. Cases of insanity, too, of alcoholic origin, have been constantly on the increase during the last twenty years, and especially in the departments in which alcohol produced from beetroot and grain is consumed. In most of these such cases have been quintupled, attaining the fearful proportion of from 25 to 40 per cent. The Committee of Organisation consists of MM. Barth, Baillarger, Bergeron, Bouchardat, Chauffard, Dechambre, Fauvel, Hérard, Larrey, Roussel, and Lunier.

M. Guéniot, a candidate for membership of the Academy of Medicine in the Section of Accouchements, has communicated an example of that rare occurrence, the disappearance of an uterine fibroma by absorption. In his opinion, founded on M. C. Bernard's experiments on the pancreas, when a fibroma or myoma thus disappears it first undergoes fatty degeneration; and, therefore, those agents should be employed in their treatment which tend to produce fatty transformation of the tissues or organs. The principal of these are arsenic, phosphorus, and lead; and it is to such medicinal substances recourse should be add much rather than to mercury, iodine, bromine, and alkalies. The following are his conclusions:—1. The cure by absorption of certain fibroid tumours of the uterus, still sometimes disputed, may henceforth be regarded as a truth definitively proved. 2. These tumours may even undergo a rapid dissolution, some months sufficing in various cases for the complete disappearance of even large myomas. 3. In the cases hitherto observed, absorption has taken place during the period of activity of the genital affections; but the puerperal state has only quite exceptionally exercised an evident influence. 4. Uterine myoma may also disappear without Surgical operation by two other modes—viz., spontaneous expulsion and gangrenous destruction or suppuration. But its disappearance by absorption being the only mode completely exempt from danger, and followed by cure, is that which should especially be sought to be induced. 5. Although the attempts made in this direction have almost constantly been unsuccessful or dubious in their results, some facts authorise us to believe that treatment is on the road of progress. 6. As far as can be judged by analogy, an uterine myoma, in order to become susceptible of absorption, must first undergo a fatty transformation of its mass. 7. The employment of steatogenic substances, such as arsenic, phosphorus, lead, etc., seems especially indicated in view of this result.

The *Gazette Médicale* of March 16 contains a case of uterine fibroid minutely detailed by M. Abeille, in which a very difficult and prolonged operation was performed for its removal with success.

MM. Labbé and Guyon recently read a paper at the Académie des Sciences, in which they gave an account of the results obtained in four cases in which they had tried the combined effect of hypodermic injection of morphia and the inhalation of chloroform. They were induced to enter on the investigation by having observed numerous experiments of M. Claude Bernard at the College de France, which demonstrated that, by such combination, very complete anæsthesia may be obtained by means of a much less quantity of chloroform than when this substance is employed alone. About the same time that M. Bernard was pursuing these researches, Professor Nussbaum, of Munich, with a view to the prevention of the pain consecutive to operations, injected in several cases the acetate of morphia while the patient was under the influence of chloroform. In all his cases pain continued suppressed, and sound sleep was prolonged for several hours after the operation.

While Professor Nussbaum, however, employed the morphia during the anæsthesia, MM. Labbé and Guyon injected it before this was produced, their object being also different—not the prevention of consecutive pain, but facilitating the production of anæsthesia and rendering it less dangerous by reason of the smaller quantity of chloroform employed. At present they have only resorted to the means in the four cases, abstracts of which they now lay before the Academy. In the first of these, twenty minutes before the performance of an amputation, two centigrammes of muriate of morphia were injected into the thigh, and then chloroform was administered. In seven minutes anæsthesia was complete, and was prolonged for a long time after the operation, which lasted seventeen minutes. The quantity of chloroform employed was twenty-

eight grammes. In a case of ovariotomy, occurring in a girl of 20, the chloroform was given twenty minutes after the injection, and complete anæsthesia was produced in six minutes. The operation lasted an hour and forty-five minutes, and the expenditure of chloroform during all this time was only forty-eight grammes. The patient continued in a state of complete resolution, and after the operation was entirely calm, having felt no pain whatever. Incomplete as are their researches at present, the authors feel entitled to conclude: first, we can in man—as M. Claude Bernard has shown can be done in animals—obtain anæsthesia much more rapidly by combining the action of chloroform and morphia; secondly, that this anæsthesia is of longer duration, and may be kept up by smaller doses of chloroform, the risks of fatal accidents being thereby considerably diminished. They suggest also that the quantity of morphia injected may be somewhat larger than that which they employed, and that the injection might be conveniently practised a longer time before the operation.

PARLIAMENTARY.—METROPOLIS WATER-SUPPLY—PUBLIC HEALTH BILL—NEW BURDEN ON THE RATES.

In the House of Commons on Thursday, March 14,

Mr. Kay-Shuttleworth asked the hon. and gallant member for Truro whether (under the eighth clause of the Metropolis Water Act of last session) the Metropolitan Board of Works had made, or were about to make, application to any of the water companies requiring them to give a constant supply of water in any districts of the metropolis, seeing that the six months named in the statute had now elapsed.

Colonel Hogg said, in answer to the question of the hon. member, he would permit him to remind him that before the companies could be compelled to provide a constant supply of water the regulations as to fittings, according to Section 10, were to be in operation. The companies issued their proposed regulations a few weeks since. These were at once considered by the Metropolitan Board, and placed before an engineer of great experience in such matters for his opinion as to their fitness; he had already made a preliminary report, which the Metropolitan Board had submitted to the Board of Trade, with a request that a full opportunity would be allowed for the complete and most careful examination of the regulations. The importance of such an examination would be obvious, as the question of these regulations went to the very root of the subject.

In answer to Lord R. Montagu,

Mr. Stansfeld said the port of London extended from Teddington to far beyond the Nore. As to the blank in the Public Health Bill, with reference to the port of London, he intended to fill it up by proposing that the Sanitary Board should be the sanitary authority for the port of London. As to the other ports, he proposed to take power to constitute the local sanitary authorities the sanitary authorities under the Bill, after inquiry had been made into the exigencies and conditions of those ports. As to the metropolis, it might probably be thought desirable that the sanitary authority should be fixed by the House, and not by the Local Government Board; and he had left a blank in the Bill in order that he might have an opportunity of ascertaining the opinion of London on that subject.

Sir Massey Lopes asked the President of the Local Government Board whether he was able to give any estimate of the average increased rate in the pound which the provisions of the Public Health Bill would impose upon the ratepayers for the following objects, or any one of them:—Expenses of offices, officers, and other establishment charges; of sewerage works and prevention of nuisances; expenses relating to supply and purity of water; of disinfecting apparatus and conveyances for infected persons; for Hospital accommodation, dispensaries, Medicine, and Medical attendance for non-paupers; and whether he proposed, and, if so, by what means, to give effect to the recommendation of the Sanitary Commission that the expenditure for such sanitary objects should be aided by the State.

Mr. Stansfeld regretted that the hon. baronet did not consult him before putting the question, because he should have told him that some modification of it was necessary. It was impossible with reference to a Bill which had not yet passed the second reading to make any but the most hypothetical and untrustworthy statement as to its financial effects upon localities. As to the second part of the question, the recommendations of the Sanitary Commissioners were at this moment under consideration, and he would not ask the House to agree to any proposal involving expenditure without being prepared to state the intentions of the Government upon this subject.

DR. QUAIN'S LUMLEIAN LECTURES, AT THE ROYAL COLLEGE OF PHYSICIANS,

ON THE

DISEASES OF THE MUSCULAR WALLS OF THE HEART.

LECTURE I.—MARCH 15.

DR. QUAIN commenced by observing that he had chosen the subject announced because he had shared with others the great interest attaching to the study of the heart and its diseases, and because of those diseases the affections of the valves had received a perhaps undue share of attention. By many, hypertrophy and dilatation were regarded as mere complications of the diseases of the valves, whereas a truer view to take of the subject was, that the diseases of the valves were occasionally a useful index to the presence and progress of the affection of the walls. The evidence in favour of this view of the subject Dr. Quain embodied in certain propositions based on clinical experience, each of which was illustrated by cases. 1st. All would admit, he said, that the really serious effects of heart disease were due to the hypertrophy and dilatation. 2nd. A person with valve disease alone might through life be unaware of its existence from the protective influence of the hypertrophy. 3rd. Not unfrequently valve disease, before unnoticed, suddenly caused much disturbance on the occurrence of damage to the walls. A patient of the lecturer's only began to suffer from a cardiac affection when he was told of its existence and restricted in his former habits, a return to which relieved him of all cardiac trouble at once and permanently. 4th. Additional hypertrophy will often compensate for additional valvular mischief. 5th. In such cases failure of cardiac walls is accompanied by progress in the disease. Lastly, dilatation of the heart may itself cause valvular incompetency.

The first diseased condition which Dr. Quain considered was enlargement. This, he said, was due to either hypertrophy or dilatation, commonly to both combined. After glancing at "concentric hypertrophy," as it used to be called—a state which had no real existence—he sketched briefly the history of hypertrophy, dwelling especially upon a description of it by Mayow, which was nearly that which might be given now. The changes which constitute hypertrophy were then described. Either of the three chief elements in the walls—muscular fibres, connective tissue, or fat—might be so abnormally abundant as to cause increase in size. The first form—simple muscular hypertrophy—was so familiar as hardly to need description. The second—hypertrophy of the connective tissue—was not yet recognised as a distinct disease, though such it undoubtedly was, and of great importance. Many cases during the last twenty years had come under Dr. Quain's notice. The state was alluded to by several writers on heart disease, though nowhere fully described. A heart so changed had its walls denser and firmer than normal, even of leathery consistence; its colour varied, and might not be greatly different from the colour of simple muscular hypertrophy. Under the microscope, connective tissue in all stages of development was seen between and compressing the muscular fibres. Its origin was a chronic inflammation or hyperplasia of the connective tissue. The third form—fatty hypertrophy—was distinct from fatty degeneration, though often confounded with it. The enlargement was due to increased growth of fat beneath the pericardium and between the muscular fibres.

Dilatation of the heart and its mode of origin were then described, especial stress being laid upon the occurrence of dilatation when the pressure of the circulation is normal, but the cardiac walls degenerated. Some instances of very large hearts were narrated, due to concomitant dilatation and hypertrophy. Bouillaud had described one weighing 34 oz., Lancisi one weighing 2 lbs., and Gibb and Bristowe each one weighing 46½ oz.

The lecturer then passed to the consideration of the causes of these forms of cardiac enlargement. Placed as the heart

was, in the centre of the system of combined actions called life, it was liable to suffer from derangement of its own mechanism or of the other organs with which it is related. The morbific agencies acting upon it might be grouped in three classes:—First, influence of the nervous system shown in the effect of moral influence. Heart disease was considered to have been more frequent during the French Revolution than before; and the excited life of the present day seemed to be having a marked effect in increasing the amount of heart disease. Some statistics of Dr. Farre's showed that the percentage of deaths to the population living had risen by one-half during the last twenty years among men between 20 and 45 years of age, while in men under 20 and in women over 20 it had remained the same. The second class of causes comprehended the mechanical agencies. Habitual severe exertion was one of these—seen in the effect, often so injurious, of many laborious occupations, and of undue athletic exercise. This was no doubt the cause why hypertrophy of the heart is, as Vanderbyl showed, nearly twice as frequent in men as in women—a consideration worthy of the attention of those who were always trying to put women into the places of men. The chief mechanical causes, however, were those occurring in the course of the circulation in the heart, in the great vessels, or in the distal circulation. Two examples of the latter—that in Bright's disease, and pregnancy—were described at some length. A very interesting sketch was given of the history of the explanation of the hypertrophy of albuminuria, which refers it to obstruction to the flow through the small vessels, and has been chiefly connected with Bright and Johnson. Mr. James, of Exeter, was the first to propose it, in 1817. The fact of the enlargement in pregnancy was undoubted, but its explanation was less certain. It was probably due partly to the need for more blood for the uterus, and partly by the uterine pressure on the great vessels. Its relation to the albuminuria of pregnancy is still uncertain.

In conclusion, the influence of disordered nutritive functions on the heart was briefly alluded to. Such influence might be one acting on the whole system, as anæmia, etc., in which dilatation is the common form of morbid change. Of those acting on the heart alone, the most interesting was that connected with pericarditis and adhesion.

There had been much discussion as to the state of the heart in these cases. It was usually enlarged, but sometimes diminished. In each case the chief change was probably an increase in the connective tissue.

Finally, hearts were sometimes met with whose enlargement could not be referred to any of the above causes. Such were some of the enormous hearts on record. It might be that some of these were due to the form of connective-tissue hypertrophy. This opinion Dr. Quain said he had written a few days before almost as a prophet, for since writing it examination of one of these hearts, preserved at St. George's Hospital, had shown that a considerable part of the enlargement was due to connective tissue.

THE

REGISTRAR-GENERAL'S ANNUAL SUMMARY OF BIRTHS, DEATHS, AND CAUSES OF DEATH

IN LONDON AND OTHER LARGE CITIES IN 1871.

It will be well to print for reference the pithy statistical abstract with which the Registrar-General prefaces this Summary:—

"London, 1871.—*Area:* The area of London (the registration division so called) is 78,080 acres, or 122 square miles, including 2718 acres of the Thames; this is equal to 31,597 hectares, or 316 square kilometres. *Houses:* At the recent Census there were within this area 417,767 inhabited houses, containing an average of 7·8 persons to a house—exactly corresponding with the proportion in 1861. *Annual Value of Property* (county-rate assessment of 1866) = £15,261,999. *Density:* 103 persons to a hectare; 42 persons to an acre; 26,674 to a square mile. *Elevation:* The population of London resides at a mean elevation of 11·9 metres (39 feet) above Trinity high-water mark—the elevation varying from 3·4 metres (11 feet) below high-water mark in Plumstead-marshes, to 131 metres (429 feet) above high-water mark in Hampstead.

"1871.—Population (enumerated April 3), males, 1,523,151; females, 1,731,109—total 3,254,260. Annual rate of increase of population per cent., 1851-61, 1·73; 1861-71, 1·50. Births, males, 57,034; females, 55,501—total, 112,535. Annual rate of births per 1000, 34·5. Deaths, males, 40,685; females, 39,647—total, 80,332. Annual rate of mortality per 1000, males, 26·6; females, 22·8—total, 24·7."

The Registrar speaks with satisfaction of the increasing "solidarity" of the civilised world, so that we are enabled to trace the first origin of an epidemic, even at Calcutta and New York; and he pertinently observes that if cholera, small-pox, or the plague can arise in some obscure corner of India, Arabia, or Egypt, and carry desolation all over the world, so now, at all events, "the discovery of the laws of public health, the determination of the conditions of cleanliness, manners, water-supply, food, exercise, isolation, medicine, most favourable to life in one city, in one country, is a boon to every city and to every country, for all can profit by the experience of one: a hygienic truth once established by facts becomes as general in its application as a truth in chemistry."

The death-rate was very high in London last year, higher than in any year since 1866, when cholera was epidemic. It is satisfactory that "fever deaths are steadily declining, from 3689 in 1864 to 1746 in 1872." This the Registrar accepts as a sign of the "improved sanitary condition of the metropolis." But unluckily the 3894 deaths from diarrhœa exceed the number any year since 1859. But of the diarrhœa deaths five-sixths occurred during the heat of early autumn. Scarlet fever was low; small-pox was high—so one malignant star sets and another rises. Diphtheria presents a steadily declining range, and we hope may some day die out as an exotic in uncongenial soil.

The whole community owes the deepest debt of gratitude to the department which year after year shows us our sanitary condition, and enables us to gauge our state of physical purity. We must work on, and faint not; although conscious that if the animal emanations in our midst and the oxygen of the air are the two forces in opposition, the conditions of a large and increasing town daily place the friendly oxygen at a greater distance.

REVIEWS.

On the Symptomatic Treatment of Cholera, with especial reference to the Importance of the Intestinal Lesion. By Dr. Felix Von Niemeyer. Translated from the German by P. W. Latham, M.A., M.D. Cambridge: Deighton, Bell, and Co. 1872.

Dr. Latham has done us a service in translating Niemeyer's remarks on the treatment of cholera. The author begins by disclaiming anything like a pretence to explain the intimate nature of the cholera-process, but asserts that, in the absence of known specifics, we must adopt a rational symptomatic treatment, which should be directed "against the symptoms arising from the intestinal lesion which in cholera is the starting-point of the disease." The work, which is comprised in fifty-six pages, is divided into three parts—1, on the Significance of the Intestinal Lesion in Cholera; 2, on the Treatment; 3, on the Results.

We know not, says Dr. Niemeyer, the precise morbific agent in cholera, nor how it gains access to the system. [These are points, however (so the English think), on which we have great probability, if not actual certainty, of knowledge.] Neither, says Niemeyer, do we know what takes place between the reception of the poison and the outcome of consequences. In all cases that Dr. Niemeyer observed diarrhœa was the first symptom. In some cases, this, with more or less exhaustion, was the only one. In others, again, other symptoms followed, all to be explained without difficulty as arising from the condition of the intestines. There is no such thing as *cholera sicca*. Even if there be no vomiting or purging in fatal cases, the intestines are distended with fluid. Diarrhœa may be the only symptom, and between this and the most fully developed cholera there are gradations innumerable. The primary and essential condition is in the intestines, not in the blood nor in the ganglionic nervous system; for if it were, how could cholera be prevented or suppressed by extreme care in diet and by checking the diarrhœa? The likeness which some persons try to establish between cholera and typhoid is unreal; for no anti-diarrhœa treatment will check typhoid as it will cholera. There is no evidence of primary disease of the blood or nervous system. The altered condition of this fluid, and the cold, pulseless asphyxial symptoms follow the intestinal affection. The characteristic post-mortem appearances are—injection of blood,

occasional ecchymosis, and evidence of copious intestinal catarrh, with loss of epithelium, which is stripped off as from scalded skin. This local mischief gives rise to the thickening of the blood and the paralysis of the nervous system. Just so extensive burns of the skin, acute abdominal inflammations, and the action of corrosive poisons depress the heart's action and the animal heat. The blood, from its physical condition, circulates with difficulty, for the corpuscles are not diffused through an adequate amount of fluid; hence, also, in part, embarrassment of the circulation of the heart itself. Still, the rapid disappearance of the symptoms when the intestinal flux ceases, shows that it is the state of the bowels, not of the blood, which is the cardinal point. The so-called *typhoid* symptoms of the cholera and the consecutive inflammations do not always occur—hence are no essential part of the disease; and when they do occur are due to extreme exhaustion and anæmia of the brain, or to an inflammatory state of the intestinal mucous membrane, and to the consequences of venous stagnation and nervous paresis. This part of Dr. Niemeyer's book is fully worked out, but we could not explain it without transcribing the whole passage; but he believes that the hypothesis with which he starts explains not only the individual symptoms, but the morbid conditions which follow.

Now as to the treatment. Our author shows how some Physicians employ vapour-baths to warm the skin; others, venesection to relieve stasis in the internal organs; others, energetic counter-irritants against the paralysis. He does not believe in contagion; yet advises all persons to quit an infected house or place. He advises such a diet as shall counteract diarrhœa, with a moderate use of generous wine. Painless diarrhœa is the thing to guard against; and on the occurrence of such a symptom he advises his patients to go to bed, drink hot tea or coffee, and use hot bricks, etc., to keep the extremities warm. They must not leave their bed for any purpose.

If the motions, however frequent, remain "coloured and somewhat homogeneous," the patient may get good from "cholera medicines" of which the only essential ingredient is laudanum; but if rapid improvement does not take place from warm bed, warm drinks, and three or four ten-drop doses of laudanum at an hour's interval, then this remedy should be discontinued. And if the motions become serous or flaky, with thirst and anxiety, showing that the inflammatory stage is developed, Niemeyer gives a grain of calomel every hour or two, and envelopes the body in cloths wrung out of ice-cold water, and renewed as often as they get warm. He does not believe that the biliary secretion is suppressed, only that the bile-colour is lost in the enormous liquid flow; so that he does not refer the good effects of the calomel to its action on the liver, but rather to its effects on the inflammatory and exudative process of the intestines. He relies more, however, on the cold, and speaks most highly of this agent in inflammatory affections in general. If vomiting continues, he leaves off the calomel, and gives merely little bits of ice and very small quantities of iced liquids, as white of egg in cold water—nothing hot. He also allows iced champagne or soda-water with a little ether in it. Meanwhile the extremities are kept warm with friction, hot bottles, and mustard liniment. Supposing the collapse to continue after the intestinal symptoms have been relieved, hot coffee, camphorated spirits, and sinapisms. Congestion of the head is combated with ice. Till twenty-fours have elapsed without evacuation, nothing is given but rusk and milk-and-water; the calomel is never continued so as to salivate, and the cold applications are continued so long as the patient expresses himself benefited. If the abdomen continues tender, with repeated purulent and greenish evacuations, just like the discharge from a blistered skin, mucilaginous drinks are given with the diet named above, and poultices to the stomach. Dr. Niemeyer, in conclusion, says that of all remedies the external cold is the most to be trusted, both for its immediate relief to the patient's distress and for its curative results.

As we said at starting, Dr. Latham has done a good deed in enabling the English Practitioner to see this terrible disease with Niemeyer's eyes, and to reinforce his remedies, if he pleases, with those which this great Physician recommends.

A Dictionary of Chemistry and the Allied Branches of other Sciences. By Henry Watts, B.A., F.R.S.; Assisted by Eminent Contributors. (Supplement.) London: Longmans. Pp. 1136.

The present volume is designed by Mr. Watts to bring before the public the most important chemical facts attained since the publication of his large Dictionary. This Supplement brings the whole work down to 1869, and in parts to 1870 and 1871. The contributors who have engaged to help Mr. Watts with this Supplement are—Professor Carey-Foster, who writes on Electricity and Heat; Dr. Michael Foster, who writes on Proteids; Dr. Benjamin Paul, who contributes articles on Beer and the Metallurgy of Iron; Dr. Roscoe, who is the author of what relates to Light and the Spectroscope; and, finally, Mr. Wanklyn, who contributes parts of what is written on Acetic Ether, Butyric Acid, and also on Butyl Alcohols, Ketones, etc.

The longer articles deal with the following subjects, viz.:—Acetic Acid, Acetylene, Organic Acids, Alcohols, Inorganic Analysis, Organic and Volumetric Analysis, Aniline Colours, Aromatic series, Arsenic, Atomicity, Benzine and its homologues, Benzoic Acid, Blood, Boron, Chemical Action, Alcoholic Cyanides, Electricity, Ethers, Fermentation, Absorption of Gases, Glycollic Acid, Heat, Hydrocarbons, Iodine, Iron, Light, Mellitic Acid, Naphthalene, Proteids, Quinine, Spectral Analysis, Sulphocyanic Ethers, and Sulphur. The others consist of short notices.

We need hardly say that the workmanship is good—worthy of the original work in every respect; and though a good deal of the volume relates to facts of pure science rather than to the applied Medical sciences, still we encounter a great many articles relating to our own particular compartment of the scientific field. If the book has a fault, it is that it is overbalanced, the earlier being by much the fuller portion; but it must be remembered that this is also the oldest portion of the large Dictionary.

NEW BOOKS, WITH SHORT CRITIQUES.

Medical Thermometry and Human Temperature. By C. A. Wünderlich, Professor of Clinic (*sic*) at the University of Leipzig, etc.; and Edward Seguin, M.D. New York: W. Wood and Co. Pp. 280.

*** In this guise we fear Wünderlich would not be able to recognise himself. We have some abstracts of what Wünderlich has done, and then some work, let us say euphemistically, not quite so good by Dr. Seguin. The book, in point of fact, illustrates one of the phases of Americanism we particularly dislike. They will not only persist in republishing without authority works published here—a process generally known as pirating—but they will edit us. It is, of course, a grievance to be pirated, but nothing like that of being edited. We would beg of our American brethren to let us alone in the nakedness of our views or imperfections of our work. We should like to have an international copyright; but if we can't, let us be spared the misery of being edited.

The Pocket Formulary and Synopsis of the British and Foreign Pharmacopœias, etc. By Henry Beasley. Ninth Edition. London: J. and A. Churchill. Pp. 546.

*** This is called a pocket formulary, but we suspect that it finds a more congenial home on the dispensary table than in the pocket. It will be found an exceedingly useful manual for preparing unusual remedies or suggesting forms for giving them when made. The references to foreign Pharmacopœias and prescriptions are particularly useful.

A Treatise on Human Physiology. Designed for the Use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York, etc. Fifth Edition. Philadelphia: Lea. London: Trübner. Pp. 728.

*** Dr. Dalton's treatise is well known, and by many highly esteemed in this country. It is, indeed, a good elementary treatise on the subject it professes to teach, and may safely be put into the hands of English students. It has one great merit—it is clear, and on the whole admirably illustrated. The part we have always esteemed most highly is that relating to Embryology. The diagrams given of the various stages of development give a clearer view of the subject than do those in general use in this country; and the text may be said to be upon the whole equally clear.

Plain Directions for Dealing with an Insane Patient. By J. M. Winn, M.D. Hardwicke.

*** A shilling's worth of most useful information on a subject practically interesting to almost every member of the Profession.

Mr. Pease has obtained leave to bring in a Bill to amend the Vaccination Acts by restoring the clauses limiting the penalties.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, March 19.

Death of Michel Lévy—The Legion of Honour—Sanitary State of Paris.

You will learn with regret the death, which took place somewhat suddenly, of M. Michel Lévy, the eminent hygienist, and Principal Physician of Val-de-Grâce. It was only a few days ago that *lettres de faire part* (invitations) were issued by him for the marriage of his son, a distinguished engineer of mines, which was to have been celebrated this week; but, alas! these were replaced by funeral notices for his own obsequies. He died on the 13th inst., in his 63rd year, and was interred in a family vault in the Jewish quarter of the Père-la-Chaise, followed by a large concourse of friends and former pupils, but, according to his expressed wish, no discourse was pronounced over his grave.

M. Michel Lévy was a native of Strasburg, and born in 1809. He began his Medical career in the army in 1829, being then only 20 years old, and was appointed Assistant-Surgeon to the Moreau Ambulance. His career was a most brilliant one, and he contributed in a very great measure to the real progress of Medicine in France. His Medico-philosophical articles, which were published in the *Gazette Médicale*, will long be consulted by the present and future generations of the Faculty.

On the outbreak of the Crimean war, the Emperor Napoleon appointed him Principal Medical Officer of the Army in the East, and on his return from the war he was rewarded with the post of Director of the School of Military Medicine and Surgery. In 1850 he was elected Member of the Academy of Medicine, of which body he was also President; and in December, 1867, was promoted to the grade of Grand Officer of the Legion of Honour.

Among the recent nominations to the Legion of Honour, I may mention that of M. Collin, the worthy successor of M. Charrière, the famous surgical instrument maker, who was appointed Chevalier for the many improvements he had effected in that branch, and for the signal services rendered by him during the late war.

The sanitary condition of Paris is excellent. There is no epidemic at present, and the mortality for the past week is reported to be 788, which includes the deaths in Hospital and private practice.

HOLLAND.

Rotterdam, March 2.

Disposal of Sewage in Holland.

If the so-called water theory of cholera had no other merit than that of creating a wholesome horror of water contamination by excremental matter, everyone must confess that it would have done more good than a great many other theories which have been held in high esteem. In our country a reaction has arisen against the contamination of our rivers, canals, and the subsoil water by human evacuations; and it is to be expected that ere long a great amelioration will have taken place in this matter.

As I stated in my papers of May 1 and June 12,(a) 1869, in this journal, there is nowhere in our country, with a single exception, a distinct sewerage system, but everywhere all the excremental matters find their way directly into the canals and rivers, or, being collected in bottomless tuns, the greater part of them sink into the soil. The city of Gröningen only has long since introduced a system of *fosses mobiles*. The excrements are mixed with the city dust, ashes, dirt, etc., and sold to the farmers, and so successfully that after the deduction of all the costs there remained lately a net revenue of one shilling and eightpence per inhabitant. In Delft the same system was introduced last year with some ameliorations and with great success. The *fosses mobiles* consist of little tuns, very neatly kept, and a compost is made of the fæcal matters in the same manner as in Gröningen. The farmers in the neighbourhood of Delft, to whom this system was quite new, have already taken a liking for the new compost, so that the demand increases daily, and also the price of it.

But what is still more interesting than this, with relation to the removal of the excremental matters in a great town, is the introduction of Captain Liernur's pneumatic sewerage system into Leyden and Amsterdam which has taken place lately. In Leyden the Council of the town resolved to introduce the system in a part of the town populated with 1200 inhabitants, and the experiments have taken place publicly, and with success. The plan of introduction of the system was promoted by a private committee for the promotion of public health. In Amsterdam the Town Council resolved to give the system of Liernur a trial, when, in one of the poorest quarters of the town, a certain foul canal, into which all the sewage matters of the surrounding neighbourhood found their way, was to be filled up. After the system was introduced in that part (some weeks since), a public trial of it took place during a whole week by the liberality of the Town Council, so that the opportunity of seeing the system at work was given to everyone who interested himself in it, whilst all desirable explanations were given by the engineers in person, who were all present.(b) Hundreds of persons from all parts of the country, and even from Germany, have made use of this opportunity offered to them, and amongst them were a great many architects, engineers, and hygienists. The trial has met in general with great satisfaction. As a result of the working of the system, it will be introduced in many other parts of Amsterdam, and also in Leyden.

It is my opinion that we ought to be very glad of these endeavours for the removal of the human excrements. Firstly, with a view to the public health, by preventing the contamination of the water and soil; and, secondly, with a view to the conservation of a very precious manure. The prices of all comestibles are constantly rising; and, at the same time, a precious manure is not only wasted in enormous quantities, but suffered to corrupt the waters and the soil, and to be the cause of many sicknesses, which should not be so. Man in this case acts contrary to nature, where nothing is unnecessarily wasted.

(a) "The Water-Supply of Holland and Cholera."

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

March 19.

Some years ago an effort was originated by Dr. Trench, the very able Health Officer of this borough, to obtain the erection of a mortuary chapel in a part of the town densely populated by the poorer Irish, in which the bodies of their relatives could be deposited shortly after death, instead of being retained in close and overcrowded rooms for the purpose of being "waked." After much unavoidable delay, a building of the kind indicated has been completed, and on Sunday last (St. Patrick's Day) was formally opened by religious services from the Roman Catholic clergy. As if painfully to comment on the necessity that exists for such a building, a poor Irishwoman lost her life through attending, on the very evening of the opening ceremonial, a wake on the body of a friend who had died of typhus fever just previously. This woman and three male companions were shut in a room in which the corpse lay. They were liberally supplied with whisky, and in the morning she was found in one corner dead, as the evidence at the inquest went to show, from suffocation resulting during intoxication. This is only one among very many cases that show the evils resulting from wakes, but it is specially striking from the time at which it has occurred. The Roman Catholic bishop and the clergy are earnest in their appeals to the people under their charge to avail themselves of the advantages offered to them by the chapel, so that it may fairly be hoped that after a few years one fertile source of the spread of disease—viz., the retention for days in close and crowded rooms of the bodies of relatives who had died from infectious disorders—will be done away. The mortuary can contain, without crowding, twenty-one coffins, and with the chapel has cost nearly £5000.

The subscriptions for the proposed alterations in the School of Medicine have already exceeded £2000, and as it is estimated that £3000 will cover the expenses, there can be no doubt that the work will be entered upon immediately, with the certainty of the remainder being in the hands of the treasurer, Dr. Waters, long before its completion.

A case of death through misadventure was investigated yesterday before the borough coroner, which should convey an

(b) Captain Liernur, Mr. de Bruyn Kops, Mr. Thooft, and Mr. P. Maes Geesteranus, agent for the Netherlands.

important caution both to those who send for and those who dispense medicines. Dill-water had been prescribed for the infant son of Mr. R. S. Iddeson, to relieve him of flatulency. The medicine was put into a bottle, which, although empty at the time, had, it seems, previously contained nepenthe, of which sufficient had remained adherent in a dried state to render the contents, after its solution, highly poisonous to an infant only 14 days old. Only a teaspoonful was given, but death ensued in the course of the day, with symptoms of narcotic poisoning.

At the last meeting of the Medical Institution, a petition to Parliament was drawn up, and signed by all the members present, praying for the adoption in the proposed Public Health Bill of clauses which shall insure the due independence of the Sanitary Officer, and provide for the consolidation of the sanitary departments of central administration; for the establishment of large local areas, and the consolidation of all functions within them; and for the recognition of a suitable local authority of a representative character.

GENERAL CORRESPONDENCE.

THE TICHBORNE CASE.

LETTER FROM DR. SAMUEL WILKS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your leader on the Tichborne case, together with the extracts from Professor Laycock's lectures, sufficiently show that the decision of such a claim as that preferred might possibly be left in the hands of a jury of physiologists. In reflecting upon the fact that a judgment was formed mainly by the ordinary legal tests of the Claimant's outward acts rather than upon what is called internal evidence, I cannot but feel that our Profession has not been equal to its obligations, in failing to have that knowledge in readiness which, after a due exposition of his physical, moral, and intellectual characteristics, would have settled speedily and satisfactorily the plaintiff's claim.

Man being the object of our study, we ought to have a more precise acquaintance with the varieties of the genus as seen in civilised life than we now possess: we ought to have a better knowledge of the temperaments, together with the physical and mental natures which belong to them. These, however, are studied by few, and the professors who have anything more than a superficial acquaintance with them in the three kingdoms must be regarded in the minority.

Natural philosophers are at the present day engaged in the great question of evolution, and are endeavouring to discover how, by a process of development, new species may arise and higher mental phenomena be evolved. They declare, however, that long periods of time are required for the change, and thus, for many generations, certain peculiarities of form remain permanent, by which the genus can be at once determined. Man is, therefore, profitably compared with the lower animals, and his varieties, again, have long been the subject of study; but, at the same time, as the doctrine of temperament shows, he is open to a still further analysis with respect to the modifications which he exhibits in civilised life, even in so small an island as ours. Although, no doubt, in man outward circumstances may through a lapse of time produce many of the peculiarities which we witness, yet these remain for generations perfectly distinct, and are transmitted through a long line of descent. We are thus able to distinguish the man of sanguineous temperament, with his physical strength and mental vigour, from the leucophlegmatic man, with his inactive body and sluggish mind. Such differences are, no doubt, appreciated by Medical men, and noted for practical purposes by a rule of thumb; but what we want is a more precise method whereby we could at once classify the individual, and never allow that he could belong to two temperaments at different periods of his life. We should not, then, be content with discussing so superficial a question as the possibility of a person growing fat or losing a tattoo mark, and similar outward and visible signs of identity. Nor, as regards his mental phenomena, would the question of identity turn on so trivial a matter as the capability of forgetting a language, but rather on the possession or loss of more essential mental characters. For example, a more important question would be, whether a generous and open-hearted youth could become a crafty, subtle, or lying man. The general opinion is, that peculiarities of body and mind remain unchanged, even to the twitching of a muscle; thence the importance attached to a trick of this kind. Novelists, in description of character, would assuredly take care to paint their hero with some peculiarity of disposition which, striking in boyhood, should not be lost in old age.

It is difficult to believe that even now there are not those in our Profession who have so far studied their fellow-creatures in their several forms and modes of development as to be able to assert with much confidence that a youth with a certain configuration of head, chest, or limbs could not, by any possibility, assume in time the form of a man having, from their point of view, another temperament; or that there are those in all walks of life who have so studied character as to be able to speak positively of the impossibility of a certain mental or moral quality becoming extinguished and replaced by another. Although the subject has not been reduced to system, there have been those—and I myself was amongst the number—who, as soon as the Claimant entered the witness-box, had the very strongest conviction with respect to his personality.

So strongly am I convinced that a better knowledge of the varieties of social man, or of the temperaments, would have determined the question at issue, quite apart from any strictly legal procedure, that I feel assured that such a trial as we have lately witnessed would have been impossible in ancient Athens; for Praxiteles would have been there, with a much larger knowledge of the human form than we possess, and Hippocrates, with his discovery of temperamenta (whose terms we use to this day), would have aided the artist by his ability to distinguish the varieties of the human type; and Plato, moreover, by his powers of analysis of the mind (made possible by the very forms of the Greek tenses), would have still further assisted by unravelling, in the subtlest manner, mental traits which at the present day might have been unobserved.

At some future time, when the Anthropological Society shall not only have studied man in relation to other animals, and have contrasted the various races of the species, but shall have also determined the lesser varieties, with their modes of development, another Tichborne trial will be, perhaps, impossible. I believe now there are men in our country (the name of one has already been designated) who could write an ingenious and instructive essay on the physical and mental types of social man as exemplified in the Tichborne case. I am, &c.,

Grosvenor-street, W., March 16. SAMUEL WILKS.

SCARLET FEVER IN THE ORTHOPÆDIC HOSPITAL.

LETTER FROM DR. C. MURCHISON.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the account of the meeting of the Governors of the Royal Orthopædic Hospital which has appeared in your columns, it is stated that I advised the Committee as to certain sanitary measures called for by an outbreak of scarlatina in the Hospital, the Surgeons of the Hospital having declined responsibility in the matter. The statement is inaccurate, and conveys an erroneous impression. I was first asked by Mr. Adams, as a friend, to see a patient of his suffering from a severe attack of scarlatina; I did so to oblige him, and not at the request of the Committee, and I had repeated consultations with Mr. Adams on the case. Subsequently, at the request of Mr. Adams, and in consultation with him at my house, I drew up some instructions for the guidance of the Committee. And thirdly, on the written request of Mr. Tamplin, I gave advice as to the readmission into the Orthopædic Hospital of a child who had recently been discharged from the Fever Hospital. I have had no other dealings with the Orthopædic Hospital.

I may add that nothing would have induced me to interfere with the Medical affairs of the Orthopædic Hospital, except at the request of, and in consultation with, its Medical officers, or even then had they declined all responsibility in the matter on which they sought my advice. I am, &c.,

C. MURCHISON, M.D.

79, Wimpole-street, London, W., March 19.

CHOLERA POISONS: DR. CHAPMAN'S THEORY.

LETTER FROM DR. CHAPMAN.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to thank you for your appreciative recognition of my pamphlet on "Diarrhœa and Cholera," reviewed in your issue of February 17. The thorough discrimination and judicial impartiality which distinguish your carefully expressed judgment of my little work awaken in me the liveliest feelings of gratitude, and at the same time assure me that you will be good enough to afford space for the following remarks on one

point in reference to which my meaning has not been quite correctly apprehended.

You rightly say: Dr. Chapman holds that the *chief* cause of cholera "is not a poison, by which he distinctly means that the cause is not a material particle or particles transmitted from sick to healthy persons." I have put the word "chief" in italics. You add, "The question, he says, is not one of the introduction of new matter, but of the states of the old matter; and among these states its temperature is, in his eyes, of chief importance." And afterwards you remark: "If Dr. Chapman denies that cholera depends in any way upon the introduction of a material poison from without, we hesitate to follow him. . . . The introduction of some specific material poison into the system from without seems to us almost indisputable. The observed course of cholera through Europe can scarcely be interpreted so favourably as Dr. Chapman seems to think. . . . Again, the well-known cases of well-poisoning, such as that of the fountain at Constantinople, and of the Broad-street pump, investigated by Snow, carry something like conviction with them."

These passages are likely, I think, to make your readers believe that I deny, as you say, "that cholera depends *in any way* upon the introduction of a material poison from without;" and inasmuch as, if they should believe so, they would misapprehend my meaning, I beg to re-state as precisely as I can my ideas on this important question. I have, I believe, adduced evidence sufficient to establish the doctrine that both diarrhœa and cholera, however induced, are essentially and invariably disorders of the nervous system, and that the *proximate* cause of all the phenomena of diarrhœa and cholera (before the stage of reaction) is hyperæmia, with consequent excessive action of the spinal cord and of the ganglionic or sympathetic nervous system. Now, it is easily credible that various agents, operating either separately or conjointly, may produce such hyperæmia in various degrees of intensity; that some may alone suffice to produce it in so high a degree as to give rise to the phenomena of cholera; and that some, acting on organisms the nervous centres of which have already been rendered hyperæmic to a considerable degree, but not sufficiently so to give rise to those phenomena, are then able to superinduce in them that intense degree of hyperæmia which is the "*conditio sine quâ non* of cholera and cholerine."

Solar heat may alone suffice, and I believe does alone suffice in thousands of instances, to induce even the most deadly forms of cholera; but I also believe that certain noxious effluvia, and water containing a large proportion of organic matter in solution, may each do the same; and, of course, if any one of these agents acting separately produces a certain degree of hyperæmia, but not sufficient to issue in cholera, it nevertheless engenders a predisposition to it, and then a second agent becoming operative on the nervous system in which that predisposition already exists may easily evoke the disease, whereas without such predisposition that agent would have been powerless to do so.

In fact, my doctrine of the genesis of cholera involves the recognition not merely of one cholera poison, but of several, the effectiveness of each poison in producing some or all the characteristic phenomena of cholera being dependent on the state of the nervous system of the patient when he becomes subject to its influence.

I freely confess that I am responsible for your misapprehension of my meaning; for, though in the pamphlet in question I expressly state that noxious *effluvia* and *impure* water are capable of becoming causes of cholera, I speak of them only as *exciting* causes, which may prove effective when the spinal cord and sympathetic ganglia have already become hyperæmic by the influence of great solar heat, but not sufficiently so to enable them to become self-originative of the disease.

This limitation of the potency of these causes is simply due to an inadvertence when I was intent on condensing the expression of my views within the compass of a few pages introductory to the reports of cases, which form the chief part of the pamphlet. But in my larger work,(a) in which I discuss at length the pathology and etiology of cholera, there is no such limitation of the potency of those causes. I expressly recognise them as independently capable of originating cholera, and observing that, in respect to cholera at least, the distinction between *predisposing* and *exciting* causes cannot, strictly speaking, be maintained, I state "that what is a predisposing cause in one person may be an exciting cause in another, and *vice versâ*," but that whereas one only of the several causes of diarrhœa is very often productive of the disease, "the sources of cholera are more frequently complex, and thus effect, by their co-operation, results which, acting singly, they would be unable to produce." The section on *impure water* as a cause begins with these words: "That this is a cause of cholera has been proved by such an overwhelming amount of evidence, that no doubt on the subject can still be entertained by any competent judge," and I support this statement by citing two striking examples—that of the poisoning by the water from Broad-street pump, alluded to by yourself, being one of them.

What I do not believe in is the existence of the so-called specific "cholera-poison," by which, according to Parkes, Goodeve, Johnson, and other pathologists, a morbid change resulting in the phenomena of cholera is wrought in the blood of cholera patients, and which, being diffused in some mysterious way, causes those widespread and epidemic developments of the disease which we are all acquainted with. Neither do I believe in the existence of the so-called "cholera germs," which are alleged by Snow and Budd to be produced and disseminated in terrific abundance from the gastric and intestinal discharges of cholera patients. I do not believe in these hypothetical creations, because their existence has never been shown to be probable by any trustworthy evidence; because the hypotheses of their existence do not afford any satisfactory explanation of the mode of production of the several phenomena of cholera; because the genesis of every one of them is simply, rationally, and harmoniously explicable as a result of the operation of causes which are known to exist; and, finally, because experience proves that effective counteraction of the operation of those recognised causes, in cases of both diarrhœa and cholera, constitutes the most successful method yet known of treating those diseases.

I am, &c., JOHN CHAPMAN.

25, Somerset-street, London, W.

(a) "Diarrhœa and Cholera: their Nature, Origin, and Treatment through the agency of the Nervous System." London: Trübner and Co. 1866.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

LETTER FROM DR. JOSEPH ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to enclose the form of petition which I have forwarded for presentation to the House of Commons on Thursday, the 21st inst., and shall be obliged if you will publish it in your this week's issue. Would you also permit me to add, for the information of the Medical public, that all that will be necessary for those to do who agree with its tenor is to copy it out fairly on one side of a sheet of paper and sign their name; they can then send it on to their own member for presentation, or to me; if forwarded to me it will be put into the hands of a friendly member without delay. Whatever is done should be done quickly. I am, &c.,

33, Dean-street, Soho, March 21. JOSEPH ROGERS.

To the Honourable the Commons of Great Britain and Ireland in Parliament assembled.

The humble petition of the undersigned sheweth—

That whereas a Bill, called the Public Health Bill, has been brought before your honourable House, seeking to impose fresh burdens of work and responsibility upon Poor-law Medical Officers without providing for their proper remuneration for the same, the effect of which will be that the sanitary work entrusted to them will of necessity be ill-performed;

That whereas the position of the District Poor-law Medical Officer is not sufficiently independent of local influences to justify his incurring the odium and responsibility of directing what works should be executed to remove unsanitary conditions in his locality, the existence of which conditions he may have reported;

And whereas Clause 56 of the said Bill, which relates to the establishment of Poor-law Dispensaries, is permissive only as it leaves the question of their establishment or otherwise solely within the discretion of the Local Government Board;

And whereas to be truly of national benefit it is necessary that such Dispensaries should be more extensively distributed than is contemplated by the clause in question;

Your petitioner prays that no Bill be allowed to become law which does not provide for the proper remuneration of District Medical Officers who may be required to act as Deputy Health Officers, and that does not place the odium and responsibility of sanitary action in a Superior Health Officer, independent of private practice, and paid accordingly.

Your petitioner further prays that Clause 56 be amended so

that the establishment of Dispensaries may be made compulsory generally, instead of permissive only, as now contemplated.

And your petitioner will ever pray, etc.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 5.

Mr. HILTON, F.R.C.S., President, in the Chair.

THE Morbid Growth Committee reported on Dr. Gower's specimen of Enlarged Liver. It was stated that the growth was a medullary sarcoma.

Mr. McCARTHY exhibited a child, the subject of a Peculiar Cutaneous Growth on the left buttock. This growth, which was first seen when the child was three weeks old, corresponded to the distribution of the lower sciatic and external saphenous nerves.

The same gentleman showed a little girl, the subject of Keloid, which was improving. At one time she seemed likely to die. Her hands and feet had been hide-bound; they were now loose.

Mr. CARR JACKSON exhibited Parts of a Thigh-bone removed by amputation at the hip after excision of the head of the femur, and an Astragalus removed by excision.

Dr. GREENHOW exhibited specimens illustrating Embolism and Softening of the Anterior Cerebral Lobes. The patient was a woman, aged 27. At the age of 14 she had suffered from rheumatic fever. She was the mother of four children. In 1870 she had a kind of a fit, and in her fifth confinement she had more fits. She was admitted to Middlesex Hospital on January 1. She had then loss of sensation on the right side, but power had been regained after the fits. She could only make use of a few words, but was quite intelligent. She spoke slowly, but could repeat words which were spoken to her. There were signs of heart disease. On January 15 she had a fit, and after it there was loss of consciousness. When she improved, she could move her right limbs freely, but the left were paralysed. She gradually sank and died. The left frontal lobe of the brain was diminished in size, and a cavity was found in it, containing milky fluid, and its walls were pigmented, as from old clots. There were also softened patches and cavities in the right frontal lobes. The left anterior and right middle cerebral arteries were plugged, probably by fibrine from diseased aortic valves. The left side had been first affected, but had gradually improved till the right was affected.

Mr. GAY showed the Head of a Thigh-bone excised for long-standing disease. The boy had suffered much pain, and when he came to operate he found the capsule entire, and the neck of the bone tunnelled for the exit of pus, leaving a sequestrum. This was probably the cause of the pain. In one of two other specimens there had been no pain, but the capsule was entirely destroyed. He also thought that in this case pressure must in a fashion have flattened out the head of the bone. Disease of the acetabulum was, he thought, no objection to the operation.

Mr. T. SMITH was surprised to hear disease of the acetabulum so lightly treated. If it was of so little moment, why not leave the diseased femur too? If the acetabulum was diseased, he supposed Mr. Gay removed the diseased bone. Experience made him shy of such cases.

Mr. GAY's experience, on the contrary, was good. It was, he thought, almost a necessity to have some disease of the acetabulum. He of course took away bone if loose, but not if only denuded.

Dr. PYE-SMITH exhibited for Dr. Shepherd a Malformed Heart. The child was cyanotic, but had no clubbed fingers, and there was a systolic bruit at the base. It lived fourteen weeks. The lungs were condensed almost like the spleen. The heart gave off the aorta from its right side, and the pulmonary artery from its left side, and the right ventricle was thickened as the left ordinarily is. The venæ cavæ were normal, and the foramen ovale was cribriform. The ductus arteriosus was patent, and the septum ventriculorum complete. By this arrangement the head would receive the most impure blood, the lungs would receive the purest, and the lower extremities blood of an intermediate quality. He thought the condition might be accounted for by a twisting of the septum which separates the aorta from the pulmonary artery in the fœtus. There was no transposition of viscera.

In reply to Dr. C. T. Williams, Dr. PYE-SMITH said there was no time for any difference to be developed in the growth and nutrition of the parts supplied with blood of different qualities. The coronary arteries sprang from the aorta.

Dr. C. THEODORE WILLIAMS exhibited a specimen of Ulceration of the Vermiform Appendix caused by a lump of hardened fæces, and giving rise to peritonitis in the neighbourhood of the cæcum. The patient had had two attacks of pleurisy, with effusion, from which he had recovered after tapping, and left the Hospital. A week later, after some constipation, he was seized with symptoms of severe peritonitis, and a tumour the size of an orange was felt in the right iliac fossa. Under treatment, the bowels became freely open. Several scybala were passed, the tumour disappeared, and the peritonitis subsided. Subsequently he died of pneumothorax. After death the cæcum was found closely attached to the right iliac fossa and abdominal wall, except in the neighbourhood of the vermiform appendix, round which was a circumscribed abscess, containing the lump of hardened fæces, which had passed through an ulcerated opening in the appendix. No signs of peritonitis were observed elsewhere in the abdomen. Dr. Williams remarked that there must have remained some fluid in the right pleura before the peritonitis occurred, as the liver was pushed down and adherent to the cæcum by inflammatory bands of lymph. The point of interest in this case was the localisation of the peritonitis and its conversion into a circumscribed abscess.

Mr. WAREN TAY exhibited a child of nine months, on whose right arm, close to the axilla and on its inner side, there had grown a Tumour the size of a fist. It was soft and pendulous. He removed it with most of the skin. It was whitish in texture, and seemed to consist of a soft connective tissue hypertrophied.

Mr. HAWARD exhibited a Fibrous Tumour of the Testicle, from a man aged 81. He had long suffered from enlargement of the right testicle. There was no pain, but it was heavy and dragged. The swelling was hard, nodulated, and elastic. There were no adhesions. It was removed, sloughing followed, and he died. The growth seemed to spring from the albugines, and consisted of dense fibrous tissue. Such a structure was very rare. Mr. Heath's specimen grew from the cord.

Mr. HULKE asked if the histology was made out by examining one spot or more, and if cartilage cells were entirely absent.

Mr. HAWARD, in reply, stated that the tumour was examined at several spots, and no cartilage corpuscles were found.

Mr. ANDREW CLARK exhibited specimens of Disseminated Melanosis following melanosis of the eye. The nodules formed separate masses in the walls of the heart. The glands were not affected. There was a single nodule, almost free, in the abdomen. The liver, kidneys, and dura mater all contained nodules. There was little in the eye. No history was given.

Mr. T. SMITH exhibited a specimen of Axillary Aneurism, for which the subclavian had been tied. The patient (a male) had, nine months before his admission, noticed a tumour in his right axilla; but there was no pain. When seen, it was the size of a lemon. The arm was painful, and there was swelling in the hands. The fingers were clubbed, but after the arm had been raised the clubbing left. The operation lessened the pain and swelling, and the man did well for eight days. Then pneumonia and pyæmia set in, and he died in twenty days. The left lung was glued to the side. In the right were signs of recent pleurisy, but around the half-healed wound there was none. The wound was nearly healed; the tissues around it matted together. There was a small abscess near the ligature, and the veins were filled with coagula. The nerves had been stretched by the tumour. The aneurism was nearly solid. The aorta was enlarged and atheromatous, and there were three aneurisms in the sinuses of Valsalva. His occupation was that of a roundhand bowler. Pressure could not be borne by the tumour. There were abscesses in the left lung.

REGULAR MEDICAL SCHOOLS OF NEW YORK.—The *New York Medical Record* (February 15) states that the following are the only strictly regular Medical institutions empowered to grant diplomas for practice:—College of Physicians and Surgeons (1807), University of City of New York (1840), Bellevue Hospital Medical College (1861), Long Island College Hospital (1859), and the Woman's Medical College of the New York Infirmary (1868).

OBITUARY.

P. W. WILLIAMS, M.D., M.R.C.P., etc.,

Died on the 10th inst. at his residence in Foregate-street, Worcester, at a comparatively early age. He was the son of Sir John Bickerton Williams, who practised for many years as a Physician at Shrewsbury, and received the honour of knighthood in 1838. His widow only three weeks ago died at the advanced age of 85. Dr. P. W. Williams, who had for some years previously practised as a Physician in Worcester, was appointed one of the Physicians to the Worcester Infirmary in 1855 on the retirement of Dr. Nash; and on his recent resignation of the office, owing to severe indisposition, the governors, at their annual meeting on the 1st inst., adopted a resolution expressing great regret for the loss of his services, and conveying their thanks to him for the same, and also elected him an honorary Physician to the institution. Dr. Williams succeeded the late Rev. Robt. Sarjeant in the post of secretary to the Worcester Musical Festivals: this, too, ill-health had compelled him to resign. His gentlemanly demeanour, musical knowledge, and unvarying suavity rendered him a general favourite. He was married to a daughter of the late Robert Gillam, Esq., by whom he leaves several children. Dr. Williams was Consulting Physician to the Ophthalmic Institution, and Surgeon to the prison. He was the author of "Prize Essay on the Nature and Objects of Medical Science," and contributor to the *Provincial Medical Journal* of "Report on Cholera," "On Porrigo," and "Case of Granular Degeneration of Both Kidneys without Serous Effusion."

ROBERT OTTER BLYTHMAN, M.R.C.S.,

Died at Swinton, on March 3, and will long be deeply mourned by all classes. During a residence of more than forty years at Swinton, he had gained a large practice both as a general Practitioner and consulting Surgeon, and his great experience and sound judgment will long be greatly missed. Mr. Blythman held the appointment of District Medical Officer to the Rotherham Board for thirty-seven years. He was also Certifying Factory Surgeon. Mr. Blythman was a student of Guy's and St. Thomas's Hospital, where he was a pupil of Sir Astley Cooper.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the examinations for the licence to practise Medicine, held on March 11 and 13, the following candidates were successful:—

Mayne, Nathaniel. | Ovenden, William Henry.
Pigott, John Charles C. Pemberton.

At the examinations for the Midwifery Diploma held on March 14, the following passed:—

Mayne, Nathaniel. | Ovenden, William Henry.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 14:—

Cartwright, Henry Gordon, Burton-on-Trent.
Cave, Alfred, Barking, Essex.
Clyma, Handsford Hosking, Truro, Cornwall.
Floyer, Blaise Bernard, Floore, Northamptonshire.
Julius, Stanley Alexander, Mortlake.
Stone, Charles Henry Augustus, Poole, Dorset.
Swan, William George, St. George's-road, Southwark.

The following gentlemen also on the same day passed their first Professional examination:—

Burton, John Randall, Guy's Hospital.
Pink, Thomas, Guy's Hospital.
Swan, Richard Jocelyn, Dublin.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Edmonds, Spencer, M.R.C.S., L.A.C.—Medical Officer and Public Vaccinator to the Lullington District, Burton-on-Trent.

Evans, Ernest T. R., M.R.C.S., L.S.A.—House-Surgeon to the Salford and Pendleton Royal Hospital.

Heburn, Robert, jun.—Dental House-Surgeon to the Dental Hospital, London, *vice* Mr. Mordaunt Stevens, resigned.

Lloyd, Thomas, of St. Mary's Hospital, Paddington—Dispenser to the West Ham Dispensary.

Owen, D. C. Lloyd, M.R.C.S. Eng., L.S.A., M.B. Lond.—Honorary Surgeon to the Birmingham and Midland Eye Hospital, *vice* Charles Townsend, M.R.C.S. Eng., deceased.

Prigg, Frederick, M.R.C.S., L.S.A.—Assistant House-Surgeon to the Birkenhead Borough Hospital, *vice* W. R. Hughes, resigned.

Shearman, William Millar, M.R.C.S.—District Surgeon to the Salford and Pendleton Royal Hospital.

Strange, Dr. A., of Colney Hatch Asylum—Medical Superintendent to the Salop and Montgomery Lunatic Asylum.

NAVAL AND MILITARY APPOINTMENTS.

Terry, Septimus, has been promoted to the rank of Surgeon in her Majesty's Fleet, with seniority of August 18, 1871 (confirming a commission given by Vice-Admiral Sir Henry Kellett, K.C.B., late Commander-in-Chief of her Majesty's ships and vessels on the China station, *vice* M'Clement, deceased).

Medical Department.—Staff Surgeon Donald Sinclair Smith, having completed twenty years' full-pay service, to be Staff Surgeon-Major, under Article 342 of the Royal Warrant of December 27, 1870; Staff Assistant-Surgeon Robert Arthur Elliott retires upon temporary half-pay; Assistant-Surgeon James Joseph M'Carthy, M.D., from the 5th Foot, to be Staff Assistant-Surgeon, *vice* Thomas White, M.B., appointed to the 5th Foot.

BIRTHS.

Austen.—On March 15, at High-street, Ramsgate, the wife of Josiah Austen, Surgeon, of a son.

Barton.—On March 16, at Hampton Court, Middlesex, the wife of Alfred B. Barton, M.D., of a daughter.

Carter.—On March 12, at Lichfield, the wife of Graham Atherley Carter, M.D., of a son.

Duffey.—On February 13, at 30, Fitzwilliam-place, Dublin, the wife of George F. Duffey, M.D., of a son.

West.—On March 18, at Carlton House, Acock's-green, near Birmingham, the wife of James F. West, F.R.C.S., of a daughter.

MARRIAGES.

Anderson—Coudon.—On March 13, at St. Peter's Church, Belsize-park, John Ford Anderson, M.D., to Gabrielle, only daughter of M. Louis Coudron, of Paris.

Cotton—Crane.—On March 7, at Christ Church, Cheltenham, Dr. Cotton, of Clarges-street, Piccadilly, to Eliza, widow of the late Hon. William Crane, of Sackville, New Brunswick.

Roberts—Phillips.—On March 1, at the Cathedral, by the Lord Bishop of Bangor, D. W. Roberts, M.D., son of the Rev. D. Roberts, Llanelidan Rectory, Ruthin, to Charlotte Elizabeth Hamilton, daughter of William Phillips, Esq., Cae Derwen, Bangor.

Skelton—Smith.—On March 12, at Cork, John Skelton, Esq., of Langton House, Cheltenham, to Susan Frances, eldest daughter of the late John Smith, Esq., M.D., Cappoquin, county Waterford.

Spencer—Harvey.—At Agra, India, on March 12, Lionel Dixon Spencer, M.D., Bengal Medical Staff, youngest son of William Spencer, Esq., of Newcastle-on-Tyne, to Elizabeth Gordon Lamond, eldest daughter of Alexander Harvey, M.D., Professor of Materia Medica in the University of Aberdeen. (By telegram.)

DEATHS.

Andrews, Jane C., widow of the late John Andrews, Esq., Surgeon, of Salisbury, at 2, Castlemaine-villas, Bournemouth, on March 18.

Blyth, Robert Otter, M.R.C.S.E., on March 3, at Swinton, Yorkshire, aged 69.

Breakey, Alice Jane, second daughter of Dr. Breakey, R.N., at the Royal Naval Hospital, Plymouth, of scarlatina, on March 18, aged 5 years and 5 months.

Chappell, John C., M.R.C.S., L.S.A., on March 13, at 14, George-street, Hanover-square, aged 58.

Clifford, Joseph, M.R.C.S., late of Clarence-crescent, Windsor, at High Wycombe, on March 17, aged 57.

Drummond, Maria Sarah, widow of the late Henry Drummond, M.D., at her residence, 15, Westbourne-terrace, Hyde-park, on March 16.

Fuase, Robert, Surgeon, on March 11, at South Molton, Devon, aged 74.

Horner, Thomas, M.D., son of the late William Horner, Esq., De Beauvoir-square, Kingsland, at 1, Bessborough-gardens, Pimlico, on March 16, aged 43.

Jones, Theodore Johnston, second son of Dr. J. Jones, of Notting-hill, on January 31, at Wickliffe, Victoria, Australia, aged 22.

Lamb, Charles Stuart, third son of G. H. Lamb, Esq., and grandson of the late Dr. Lamb, formerly Physician-General, Bengal, at 11, Colville-gardens, Kensington-park, W., on March 16, aged 27.

Monro, Frederick Hugh, fourth son of Henry Monro, M.D., at 13, Cavendish-square, March 17, aged 18.

Stuart, John, L.R.C.S.E., of Roxburgh House, Kelso, at 23, Porchester-square, Hyde-park, the residence of his son-in-law, after a lingering illness, on March 16, aged 80.

Thompson, Joseph, M.R.C.S., L.S.A., suddenly, at Oxford-street, Nottingham, on March 19, aged 63.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Beckett Hospital and Dispensary, Barnsley.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications and testimonials, on or before April 8, to Messrs. Newman and Sons, Solicitors, Barnsley.

Birmingham General Dispensary.—Resident Surgeon. Candidates must be duly qualified. Applications and testimonials to Alexander Bottle, M.D., Secretary, on or before April 17.

Camberwell Provident Dispensary.—Medical Officer. All particulars to be obtained from the Secretary, Dispensary House, Camberwell-park, S.E.

Carmarthen County and Borough Infirmary.—House-Surgeon. Must be M.R.C.S. and L.S.A. A knowledge of the Welsh language is necessary. Applications to Mr. H. Howell, King-street, Carmarthen, on or before April 10. Election on the 12th.

Hospital for Consumption, Brompton.—Resident Clinical Assistant. Applications and testimonials to be sent on or before Saturday, March 30.

Ripon Dispensary and House of Recovery.—House-Surgeon and Dispenser. Testimonials to the Hon. Sec., on or before March 25.

Rotherham Hospital and Dispensary.—House-Surgeon. Must be duly qualified. Applications and testimonials to the Honorary Secretary, on or before March 26.

Royal Surrey County Hospital.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before April 16.

Royal Veterinary College.—Professorship of Physiology, Therapeutics, and Pharmacy. Candidates must be M.R.C.V.S. Applications and testimonials to the Principal of the College, on or before April 4.

St. Marylebone General Dispensary.—Surgeon. Candidates must be M.R.C.S. Eng., and must attend personally on Wednesday, April 3 next, at eleven o'clock in the forenoon, with a written application. No canvassing allowed.

Salisbury Infirmary.—House-Surgeon. Candidates must be duly qualified. Applications and testimonials to be sent to the Secretary, on or before April 11.

Walsingham Union.—Medical Officer and Public Vaccinator. Candidates must be duly qualified in accordance with the General Orders of the Local Government Board. Applications with testimonials to be sent to Mr. J. Wright, Clerk, Bridge-street, Fakenham, on or before March 26.

Westminster Union.—Medical Officer to the Workhouse Infirmary; also a Dispenser. Particulars may be obtained at the Clerk's office, Poland-street, where applications are to be sent, not later than Monday, April 1.

West Sussex, East Hants, and Chichester Infirmary and Dispensary.—House-Surgeon. Candidates must be duly qualified. Testimonials, etc., to be sent to Mr. E. W. Bartoa, on or before April 1.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

East Ward Union.—Mr. Alexander Lindsay has resigned the Brough District.

Manchester Township.—Mr. George R. Brebner has resigned the office of Assistant Medical Officer at the Crumpsall Workhouse; salary £150 per annum and allowances.

Samford Union.—Mr. Charles Spurgin has resigned the Stratford District.

Sudbury Union.—Mr. W. E. S. Stanley has resigned the First District; area 12,651; population 3195; salary £55 per annum.

Tavistock Union.—Mr. J. H. Willis has resigned the Lew Trenchard District; area 12,710; population 1994; salary £25 per annum.

Weymouth Union.—Mr. T. Parker has resigned the Abbotsbury District; area 11,358; population 2034; salary £60 per annum.

APPOINTMENT.

Penistone Union.—George F. Leigh, L.S.A., to the Penistone District and Workhouse.

The Levée.—At the levée held on Thursday, March 14, at Buckingham Palace, the following presentations were made:—Dr. John Rose Cormack, on receiving the honour of knighthood, by the Secretary of State. Dr. Crothers, by Lieutenant-General Sir George Bell, K.C.B. Surgeon John Daniel Hill, by Lieutenant-General Sir Arthur Lawrence, K.C.B. Dr. Lowe, by General Sir W. Knollys, K.C.B. Dr. Edward Makaffy, C.B., Deputy Inspector-General of Hospitals, by Major-General Lucas. Deputy Inspector-General of Hospitals W. C. Maclean, on being made a C.B., by the Secretary of State. Sir James Paget, on being made a baronet, by the Lord Chamberlain. Dr. Paget, Regius Professor of Physic in the University of Cambridge, by the Right Hon. W. E. Gladstone. Dr. Mackenzie, C.B., C.S.I., Honorary Physician to the Queen, by Lieutenant-General Sir J. Hope Grant, G.C.B. Assistant-Surgeon Clement Cuthbert Walker, Kent Artillery Militia, by Viscount Sydney, G.C.B. The following gentlemen attended the levée:—Sirs James Alderson, W. Fergusson, H. Holland, William Jenner, Charles Locock, Henry Thompson, Thomas Watson. Deputy Inspector-General Jee, C.B., V.C. Drs. Acland, Emil Becher, Hinckes Bird, Brodie, Burrows, George Butler, Wm. Carr, T. B. Christie, Langdon-Down, Arthur Farre, Day-Goss, Hooker, Leonard Kidd, M.B. (Staff-Surgeon), Wickham Legg, Alexander Marsden, Mouat, Reginald Read. Messrs. W. Adams, Oscar Clayton, Alfred Cooper, White Cooper, Du Pasquier, Cæsar Hawkins, Harry Leech, Leonard Sedgwick, John Simon, T. Spencer Wells. H. Cooper Rose, M.D.

Mr. Partridge.—The friends of this gentleman will be glad to learn that he has so far recovered from his late serious illness as to be able to attend to his Professional and Collegiate duties, and on Wednesday last week was chairman at a meeting of the Dental Board of the Royal College of Surgeons.

Dr. Hunt, one of the Medical Officers of St. George's (Hanover-square) Union, has been voted by the guardians £25 for extra services during the epidemic of small-pox.

We learn from Malta that a spacious Hospital is being constructed near Zabbar-gate at a short distance from Verdala Barracks for the benefit of the troops stationed at the Cottonera district.

The Wolverhampton Medical Officer of Health has resigned in consequence of the Town Council refusing to carry out the sanitary resolutions considered necessary by him.

The late Mr. Wade, F.R.C.S.—The exquisite collection of paintings by Hunt formed by the discriminating taste of the above esteemed member of our Profession (lately deceased) were sold on Saturday, the 9th inst., by Messrs. Christie, Manson, and Woods, and produced nearly £5000.

Lectures at Cambridge.—Dr. Bradbury, the Linacre Lecturer in Medicine at Cambridge, has given notice that he will lecture on Pathology in the Old Anatomical Schools on Tuesdays, Thursdays, and Saturdays, at 9 a.m., during the Easter term, commencing on Thursday, April 18. The fee for the course will be two guineas.

The mortality per thousand, according to the annual report just issued for the last year of the Relief at Death Fund of the London Society of Compositors, is considerably in excess of the average rate; 50 per cent. of the deaths are due to chest affections.

Yellow fever still exists in the ports of Pernambuco and Paraiba.

Cholera broke out on board H.M.S. *Daphne* before she left Calcutta for Sauger with the remains of the Viceroy, and a sub-lieutenant died. The captain, Assistant-Surgeon, and several men were seized, but the ship dropped down the river, and a telegram has been received stating that the captain's case was hopeful, and that the others were going on well.

Dr. Decaisne's researches about the hygienic effects of the working of the sewing-machine on the health of the operative have been published. Putting aside some local influences of the pedal motion, the Doctor says that, when reasonably and temperately employed, and taking care not to overwork the female operative, as is frequently the case, the machine-work is no more injurious than needlework. He, however, recommends a mechanical motor.

Cambridge Philosophical Society.—On Monday, February 26, Dr. Latham read a paper "On Teichopsia, a form of transient 'half-blindness'; its relation to nervous or sick headaches, with an explanation of the phenomena." The disturbance of vision referred to in this paper, Dr. Latham said, was a subject which had engaged the attention of Sir John Herschel, the Astronomer Royal, Dr. Hubert Airy, and many members of the Medical Profession. He should proceed to show that it was one stage of a complaint known under the name of nervous headache, bilious headache, or sick headache; the complaint not always accompanied by disturbed vision, but other disordered sensations being substituted for it, and on the other hand the distnrbed vision not being always followed by headache; and he should then endeavour to explain the phenomena. He divided the complaint into two stages—first, the stage of disordered sensation, and, second, the stage of headache. After quoting the descriptions given by those whose names are mentioned above, as well as by persons who had come under his own observation, Dr. Latham referred to the causes and conditions under which the attacks were induced. It is to be observed, he said, that all these causes and causes like to them are of a depressing nature, exhausting the power, and therefore lowering the tone of the system, putting it out of tune, disturbing the harmony of the functions, and at the same time exalting the susceptibility of the nervous system. The result was that the power of the ganglia of the sympathetic nervous system to conduct, transfer, and radiate the effects of impressions was no longer controlled by the superior force in the cerebro-spinal centres, and instead of tranquil, even harmonious action in the various organs, as in perfect health, we had convulsive and painful movements. After referring to the effects of irritation and section of branches of the sympathetic, the next step in his argument was that, in the disorder under consideration, there was first of all contraction of the vessels of the brain (probably the middle cerebral artery), and so a diminished supply of blood produced by excited action of the sympathetic, and that the exhaustion of the sympathetic following on this excitement causes the dilatation of the vessels and the headache. This he supported by various cases and comparisons. He next discussed the question why the dis-

order might be sometimes unilateral and sometimes bilateral, and, lastly, why in some cases there is (1) disturbance of vision without headache following, (2) disturbance of vision followed by headache, and (3) headache preceded by disordered sensation, but not by disturbed vision, all of which he maintained were explicable by the theory which he had advanced.

CENSUS OF THE UNITED STATES FOR 1871.—The official Census returns the entire population at 38,923,210, distributed as to colour as follows:—White, 33,589,857; coloured, 4,886,387; Chinese, 63,254; and Indians, 383,712. Of these latter, some two-thirds are estimated as "nomadic."—*New York Medical Record*, January 15.

POMADE FOR BALDNESS.—M. Bouchut recommends the following:—Beef marrow, thirty parts; chloride of zinc, ten parts. The head is to be shaved, and friction made morning and evening until a purulent miliary eruption is produced. The pomade is then to be suspended until the scalp has returned to its normal condition, when it is to be resumed.—*Union Méd.*, March 5.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN FEBRUARY, 1872.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	20·61	0·135	0·124	0·005	14·3	4·0
West Middlesex .	19·11	0·049	0·121	0·002	14·0	3·6
Southwark & Vauxhall . . .	20·83	0·116	0·120	0·005	14·5	3·8
Chelsea . . .	21·03	0·134	0·121	0·004	14·8	4·0
Lambeth . . .	...	...	...	...	...	...
Other Companies.						
Kent . . .	26·97	0·012	0·256	0·000	20·3	6·0
New River . .	21·07	0·069	0·121	0·001	15·4	3·9
East London . .	23·47	0·098	0·134	0·002	16·5	4·6

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in the case of the Grand Junction and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 101,139,041 gallons; and the number of houses supplied was 492,231. This is at the rate of 31 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 27·7 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Ego.—In January, 1833.

Mr. Prott, of Oxford-street, writes to warn the public that there are imitations of Stöhrer's batteries abroad which may not give the satisfaction the real articles generally do.

Bayswater.—Mr. Delamark Freeman is *not*, as stated on the prospectus of the Bayswater Mutual Medical Aid Society, a *Fellow* of the Royal College of Surgeons.

A Competitor.—Six essays were sent in for the Jacksonian Prize before Christmas-day last, hence the delay in making that announcement which you are so anxiously looking for, but which we understand will shortly appear.

CHANGE OF TYPE OF MODERN AMERICANS.

The marvellous advance of temperance among English-speaking people is a complex effect of vast and varying causes. It is to be attributed partly to the general improvement of the race under a Christian civilisation, which has made coarse vices of all kinds unpopular, partly to the very zealous efforts of temperance reformers, partly to the wide diffusion of knowledge of the nature and effects of stimulants and narcotics, and very largely to the enormous and rapidly increasing nervousness of our brain-working classes, which will not allow them to be the drunkards and gluttons that our ancestors were. Wisely has Bulwer remarked that it needs a strong constitution to be dissipated. The typical modern American, whose distant ancestor gorged himself like a boa constrictor, and in his character partook not a little of the hog, on whose meat he largely subsisted, now finds it difficult to eat enough to sustain life and labour, and can hardly take a glass of wine or smoke a pipe without at once paying the penalty by torturing headache, trembling nerves, and sad indigestion.—*Dr. G. Beard.*

Ears.—We do not know what Dr. Christie can be spoken of by the Plymouth paper as having first called attention to the ear as a distinctive feature in the "Claimant's" case. Professor Laycock's lectures were published in our columns in 1862, with the drawings of ears reproduced in our number of last week; and it is, we believe, to him that is due the credit of pointing out the relevancy of his researches to the present case of disputed identity.

A. B. C.—The error mentioned was of no consequence: the context was sufficient to show the meaning of the sentence. Mere "word-catchers" find fault when sensible people remain silent.

FALSE QUANTITY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the *Medical Times and Gazette*, p. 331, col. 1—in the verse "*Principibus*," etc.—if I remember rightly, the word is *ultima*,—certainly not *minima*, which will not *scan*. I am, &c., G. Hastings.

[*** Alas! the exigencies of life and work must be the excuse for such a slip.]

M.D.—Joseph Mazzini was the son of a Physician and Professor of Medicine in the University of Genoa. His father wished him to follow the same Profession, but he was determined on a political career.

Latin Prescriptions.—On a late trial of a chemist for manslaughter, in consequence of having dispensed muriate of morphia for solution of that compound, the defence was that the *solu.* looked like *salt*, and consequently the mistake did not amount to criminal carelessness or ignorance. The prisoner was acquitted. The counsel and judge made some strong remarks on the advisability of writing prescriptions in English instead of Latin. The mistake in a letter had been the cause of a death.

WHY IS THE TENCH CALLED THE PHYSICIAN OF FISHES?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I met, the other day, with a little scrap of some unknown book, published in Latin, in the sixteenth century, and referring to the manners and customs of the English. It says that the pike is a very common article of food in England, and that the fishwomen keep the pike alive in tanks, and fatten them on small eels and other fishes. It goes on to say that these women never hesitate to cut open the belly of a fish to show its internal fat and spawn for the attraction of purchasers, and that if the fish is not sold, they simply sew up the wound with needle and thread, and put it back into the tank. There are always tench in the tank, and the glutinous secretion of their skin is said to heal the wound in the pike's belly. I am, &c., A.

Thomas Bateman, M.D.—"Who was the author ('J. R.') of a Life of Thomas Bateman, M.D, F.L.S. (of Whitby), published by Longmans in 1826? —C. A. FEDERER, Bradford."—(*Notes and Queries*, February 24, 1872, p. 159.)—"The author of the Life of Dr. Bateman was his brother-in-law, Dr. James Rumsey, who practised for many years at Amersham, but spent the last years of his life at Clifton, Bristol. He received his M.D. degree from the Archbishop of Canterbury, and he well deserved it, for he was a skilful Practitioner and a truly good man.—J. D."—(*Notes and Queries*, March 16, 1872, p. 227.)"—Are degrees in Medicine still conferred by the Archbishop of Canterbury?

THE CONTAGIOUS DISEASES ACTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In your article on the Contagious Diseases Acts, published in your journal of February 17, you say that you "lay the chief blame of the *imbroglio* on those members of our own Profession who, in their laudable zeal for wiping out syphilis, began by introducing the thick end of the wedge first, and shaped their measures in such a way as to awaken the prejudices and alarm the moral sense of the community." And again you say—"We lay the blame, then, of the present inveterate opposition to the Acts on the way in which the matter was first handled; on the well-meaning attempt to make it an isolated question of disease—a mere Medical question. The results would have been far different if the moral side, which the advocates of the Acts are now fain to put forward, had been acted upon from the first."

Before proving from the published reports of the "Association for Promoting the Extension of the Contagious Diseases Acts" that the Committee of that Association were not unmindful from the first of the great moral benefits conferred by the Acts, allow me to congratulate the *Medical Times and Gazette* on its returning, after several years of opposition, to the advocacy of the Acts; but, at the same time, I regret that so respected a journal should cast blame on those who have laboured long in support of those Acts, and borne the chief burden of their defence against the fanatical attacks of their opponents.

The first report of the Association was published in 1868, and extended to fifty pages. One of the objects of the Association, as printed in the first page of the Report, is, that "it aims at the moral and social improvement of a numerous and degraded class;" and at page 14 the Report states that "the Association is opposed to the Continental system of licensing prostitutes and brothels, and is of opinion that nothing resembling a certificate of health should be given to the women themselves, either after their Medical examination or on their discharge from Hospital."

Section V. of the Report, consisting of two pages, is entitled "Moral and Social Effects of Prevention," and paragraph 41 in that section states that "the Association desires the suppression by police regulations of the open profligacy of the streets, which offers so great a temptation to the young and thoughtless. This has resulted from the operation of the Contagious Diseases Act at Plymouth." And in the Appendix the good moral effects of the Act are referred to repeatedly by reports from the subjected towns and in letters from the clergy and chaplains cognisant of the working of the Act.

I need not refer to the subsequent reports of the Association, suffice it to say that the fourth report has just been printed and circulated, and any-one reading it will see that the moral side of the question has been fully treated in about sixteen pages out of fifty-six. The Committee of the

Association have the satisfaction of feeling that their labours have been appreciated by the political supporters of the Acts, but they have received scant justice from the Medical periodicals, from whence support was most expected.

I am, &c.,
J. Brendon Curgenven, one of the Hon. Secretaries
March 6. to the Association.

Bound in Human Skin.—A copy of the "Constitution of the French Republic of 1794," bound in human skin, is about to be sold in Paris. The binding, however, is said not to be unique. The public library in Bury St. Edmunds contains an octavo volume, consisting of a full report of the trial and execution of Corder—who, it may be remembered, murdered a young woman named Martin, at the Red Barn, in a neighbouring village, about forty years ago—together with an account of his life and other matter. This volume is bound in the murderer's skin, which was tanned for the purpose by a Surgeon in the town. The skeleton was prepared for the Suffolk General Hospital, and is still to be seen there. The human leather is darker and more mottled than vellum, of a rather coarse texture, with holes in it like those in a pig's skin, but smaller and more sparse. English books with this kind of binding are at the same time much less rare than is generally supposed. In the Bristol Law Library are several books bound in human skin, specially tanned for the purpose, and some curious details might be furnished of several local culprits executed in that city who were flayed after execution to furnish the leather for binding together some contemporary legal lore.

Ma. Multy Lal Mitra.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your readers will be glad to learn that the Hindoo gentleman, Mr. Multy Lal Mitra (not Mr. Lal Mitra), L.R.C.S.E., mentioned in your last number as lying at the Lambeth Workhouse in a state of insanity, and incapable, from want of present means, of procuring a passage out to his own country, although said to be possessed of large wealth in India, is in a fair way of being properly cared for, and has already been removed from the workhouse.

On Friday last I had the happiness of calling the attention of a Hindoo gentleman, a member of the Inner Temple, to the case, who, with the utmost alacrity, at once proceeded to the workhouse, and on the following day informed me that every reasonable expense should be incurred in sending his unfortunate countryman home as soon as he was in a fit state for removal, and that in the meantime he should receive all proper attention; but that there were circumstances connected with the case, which he explained to me, that would not justify an expenditure beyond the necessities of the occasion.

The two Hindoo gentlemen are comparative strangers to one another, and I am, therefore, the more rejoiced to bear this testimony to the Christian-like conduct of one of our non-Christian fellow-subjects.

I am, &c.,
1, Mitre-court, Temple, March 19. Hugh Weightman.

Dr. Hill and St. Pancras.—The following letter addressed to the Board by Dr. Hill was read at their meeting last week:—

"In reference to an agreement which I was on Wednesday requested to sign at the meeting of the General Purposes Committee, I beg to inform you that I am quite willing to devote the whole of my time to the discharge of my duties as Medical Officer of this workhouse, and have held myself in readiness to do so since the 5th instant. My objection to sign the agreement is that, according to the construction placed upon it by the Committee, I should be bound to disobey the legal order of the coroner to make a post-mortem examination of the body of any person dying in the workhouse. I have the highest authority for stating that such disobedience on my part would render me liable to a penalty of £5 for each offence. I cannot, therefore, allow myself to be placed in such an unenviable position. But in order to show that my objection is based, not upon motives of pecuniary advantage to myself, but upon a desire of self-protection, I beg to state that if the Board will give me a bond, holding me free from the costs and payment of the before-mentioned penalties, and such as will be approved of by my advisers, I will not hesitate to sign the agreement."

The Chairman said the Board did not object to Dr. Hill attending inquests as a witness and taking his guinea fee, but there was a great objection to his making post-mortem examinations, and it was believed that Dr. Lankester could not compel him to make them if he had other business to attend to. Even if it were otherwise, what they wanted Dr. Hill to do was to carry out his agreement by giving up the fees. Mr. Joseph Salter said Dr. Hill had written to the coroner with reference to the law on the subject, and had received a reply stating that every Medical Officer was bound to obey the coroner's order to hold a post-mortem examination under a penalty of £5 in each case of failure. Presuming that to be correct, Dr. Hill could still refuse to take the fee, and that would secure the object of the Guardians. There was no objection to the fee of one guinea as a witness being taken. He would suggest that they should ask Dr. Hill to allow the Guardians to submit the coroner's letter to their solicitor. The Chairman thought the best thing they could do was not to confirm Dr. Hill's appointment, and to take no further notice of the matter, but leave Dr. Hill to come to himself. Shortly afterwards, a letter was handed to the Chairman from the Local Government Board, stating that they had no power to compel Dr. Hill to sign the proposed agreement with reference to taking fees for holding post-mortem examinations. It was then resolved—"That, Dr. Hill having declined to sign the agreement, the Board take steps to make other Medical arrangements for the house."

"Aoe quæ Justa sunt."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am a subscriber and regular reader of your invaluable journal, and shall feel obliged by your inserting the following remarks in your next issue:—

Judging from the many attempts made and suggestions given from time to time to improve the working of the present Medical Act, it would appear to a stranger that it does not give satisfaction to the members of the Profession at home; and, if this be the case, how much greater must the annoyance be to the members of the Profession who have been educated in the colonies, and have taken their degrees from regular chartered universities, whose professors are recognised as competent teachers by the different licensing boards throughout the United Kingdom. Those gentlemen are placed in the same category as the *vilest quacks* on putting their foot on the shores of Great Britain, no matter how high their Professional standing may be in the land of their birth. For example, as the Medical Act stands at present: Dr. A is a regularly educated colonial Physician, and practising in the same neighbourhood is Dr. B., a member of a British university—the former gentleman meets the latter in consultation, and is in every way his equal in the colony; but let those two gentlemen meet in England, and how do they then stand? Why, Dr. B. is allowed to practise his Profession, and Dr. A. is not, although he thoroughly understands it, unless he is willing to go through again the routine of appearing in lecture-rooms, etc., for a year, and after submit to be examined by men whom he would perhaps have to meet the next day in consultation, and assist with his advice. The majority of the members of our Profession educated abroad would not submit to such a degradation, even to gain all the privileges obtained by their names appearing on the British Medical Register.

Assuredly a law that throws so great a slight on the members of an enlightened and educated class—our colonial Practitioners—is neither just nor generous; and I believe that the day is not far distant when an Act more in keeping with the spirit of the age in which we live will be introduced. If I am not already anticipated, I would suggest it should make provisions for the registration of the degrees of all foreign and colonial Practitioners, provided they can give satisfactory proof of their good standing in the country from which they have come, as well as evidence of having passed an examination for their degrees. Such information can be obtained from the registrars of the universities or colleges from which they were obtained.

I am quite aware that some over-cautious reader will say that, if such an Act became law, it would ruin the English colleges, and that the country would be inundated with foreigners; but I say to such "Fear not!"—for, if you will take the trouble of referring to the Medical Register, you will find that there were not many foreign degrees on the passing of the Medical Act in 1858. It must be remembered that before that date there was no law against even *unqualified* Practitioners, which clearly shows that foreign or colonial graduates, whose degrees would have been recognised then, did not think that the practice of their Profession would be more lucrative in England than in their own country.

You may say, then, What benefit accrues by our recognising them now, if they do not want to come here? I say the benefit is great; for, first, you would show that you were a liberal and enlightened body of men; and secondly, that you were willing to give the same privileges to foreigners as they have given and will give to graduates of British Medical schools; and lastly, by doing this it would prove that you consider that graduates of British colleges cannot be surpassed by those of any other—for I must say that the impression the present Act leaves on the minds of some is that British graduates in these days are not like their forefathers: they cannot defy competition.

Thanking you for the space occupied by these remarks in your columns, and hoping that they may be the means of gaining for members of the Medical Profession abroad all the rights and privileges which British Physicians receive and accept from foreigners,

February 27. I am, &c., A Voice from a Colony.

Funerals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—This morning a woman suffering from puerperal peritonitis lies ill in a miserable lodging, and in the same room a tiny coffin containing her infant attracts the attention and curiosity of neighbours—besides inviting typhus. Yesterday a lady, by no means of religious turn, quietly, peaceably closed her eyes, clinging to temporal existence less tenaciously than many a sister whose soul had been prepared, and ready for the dark future. Constantly reminded of death riding on every passing breeze, lurking in every flower, it is strange that we Medical men do not at all set our houses in order. Struggling for the laurels and the bays, have we no leisure to consider the elms, the yews, and the significant cypresses? Sir Astley Cooper, satiated with wealth and honour, often looked up at his tall trees half inclined to hang himself; Sir H. Holland, commencing practice at 27, able to travel all the world over, yet rapidly earned a large income. These instances of success are exceptional. The mitre, the woolsack, and the ermine are for other professions. Even to put money in the purse is comparatively rare. There is a fable somewhere that the eagle promoted the cuckoo to the rank of the nightingale of the wood; but the other birds, hearing the harsh, shrill note, refused to recognise the sound, and flew away in terror or derision. The tide comes some time or another to every man, everything depending on his ability to be equal to the occasion. Alas! the trial in the scales of public opinion and private reflection may be unsatisfactory, very disappointing. In that unhappy frame of mind, easily recognised by the unsuccessful, broken-spirited middle-aged Practitioner, temporary mental relief is sought in scribbling, and to-night the disposal of the dead forms the subject—gloomy, but concerning all. When once the spirit has fled from the body, lately so lovable, so full of joyous health and activity, the cruel fingers of destructive decay leave us but a ghastly corpse, spreading perhaps pestilence in the house, and in the grave poisoning the atmosphere above and the water springs below. Trousseau relates that during the last century there was ordered the judicial exhumation of a person who had died of small-pox a long time before. The gravedigger and others contracted the disease, which spread rapidly in a village for years previously exempt. On reference to Parkes's "Hygiene," it appears that carbonic acid, ammonia, sulphuretted and carburetted hydrogen, nitrous and nitric acids, and various fetid gaseous products, result from burial; but should the body be burnt, carbonic acid, carbonic oxide, nitrogen, etc., are given off. The solitary cynic will say—Why not be placed in holes or caves, or hermetically sealed coffins, be embalmed at the expense of £200, be exposed to the vultures on the mountains, or in the Towers of Silence? Why not be preserved in a museum, be burnt, consigned to the waves, or become the prey of wolves, dogs, or crocodiles? What does it matter? *Que sçais-je?* What do I know? *Ubicunque felix.*

From a sanitary point of view the question materially concerns the survivors; but, whether sulphate of zinc, carbolic acid, charcoal, or quicklime be sprinkled about the corpse or not, it is quite clear old English customs will remain intact—incremation will never be tolerated excepting

during a campaign, a panic, or an epidemic such as the plague at Eyam, where 267 out of 350 inhabitants died! Besides, this troublesome, expensive process carried on in large towns would constitute a nuisance, and in the country scarcely required. This afternoon, whilst driving from one anxious case to another (very sad at heart, and with sufficient reason), the intervals between the houses occupied reading Dr. Brehm's book, the subject appeared in such harmony with the train of thought that a quotation needs no apology. "When a bird dies a whole army of gravediggers take the little corpse under their care, hundreds of different beetles and other insects devour it; the grass soon covers its remains, mosses enclose the bleached skeleton; the feathers are scattered by the winds, the flesh has vanished, the bones are buried, and the leaves of the trees alone rustle and murmur long after the lovely being which lived, loved, and died under their gloomy shade has vanished from their midst."

In an obscure churchyard in the Scilly Islands rest wanderers returning from foreign climes; invalids yearning for home and kindred pitiably die within sight of the blue hills of the dear old country, and are buried in this lonely spot.

The Moor has done his work; the Moor can go. Yes, many a worn-out Medical man, an exile whose sun is setting, wistfully longing for one last look at his native village, the ivy-covered church, the red-brick house, the trim garden, the clean streets, the quaint shops, the salmon river, and the green familiar lanes, would say with the poet—"*There* I should sleep softly; I would know that the things I loved so here below were about me still."

I am, &c.,
A. W.

COMMUNICATIONS have been received from—

Mr. Gulliver; Mr. Coxon; Mr. H. Fox; Dr. Sansom; G.; Mr. Chappell; Mr. J. F. Pratt; Mr. F. W. P. Jago; Dr. Conradi; Dr. Phillips; Dr. Wilks; Dr. A. Harvey; Mr. J. Roberts; Dr. Balmanno Squire; Dr. Boulton; Mr. Winterbotham; Dr. Handfield Jones; Dr. C. J. B. Williams; Mr. J. Chatto; Mr. J. F. Clarke; Dr. Nottingham; Mr. F. A. Mahomed; Professor Flower; Dr. C. Currie Ritchie; Mr. Bradshaw; Mr. Teevan; Dr. H. A. Lediard.

BOOKS RECEIVED—

Report of the Sussex County Lunatic Asylum—The Origin of Cancer, by Campbell De Morgan, F.R.S.—Report of the York Lunatic Asylum—The Physician, a Family Medical Guide—The Education of the Deaf and Dumb, by Dr. W. B. Dalby—Stimulants and Narcotics, by George M. Beard, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Quarterly Journal of Education, No. 1—Philadelphia Medical Times, March 1—Medical Press—Chemist and Druggist—Western Daily Mercury—Pharmaceutical Journal—Transactions of the Odontological Society, vol. iv., No. 4—Detroit Review of Medicine, March, 1872—Liverpool Daily Post, March 18—Liverpool Courier, March 19—Medical Press and Circular.

APPOINTMENTS FOR THE WEEK.

March 23. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. Moncure D. Conway, "On Demonology."

25. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Dr. Crisp, "Three Cases of Sudden Death." Mr. Coulson, "On Lithotomy after Lithotrity."

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

26. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Medical and Chirurgical Society, 8½ p.m. Dr. Graily Hewitt, "On the Acquired Deformities of the Uterus: their Importance, Effects, and Results; with a Statistical Account of Observations on the subject at University College Hospital from 1865 to 1869."

27. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Royal College of Surgeons of England, 4 p.m. Prof. Flower's Lecture "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."

28. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

29. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

EXPECTED OPERATIONS.

West London Hospital.—The following Operations will be performed on Tuesday next, March 26:—

By Mr. Teevan—Lithotrity, two cases.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 16, 1872.

BIRTHS.

Births of Boys, 1214; Girls, 1229; Total, 2443.
Average of 10 corresponding weeks, 1862-71, 2180·2.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	764	711	1475
Average of the ten years 1862-71	775·8	756·8	1530·6
Average corrected to increased population	...	...	1684
Deaths of people aged 80 and upwards	...	...	56

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	5	6	4	...	11	1	3	...	4
North ...	751668	14	19	6	2	25	3	4	1	...
Central ...	333887	3	4	2	...	11	...	...	...	2
East	638928	9	8	5	...	27	...	5	2	4
South... ...	966132	11	3	2	1	37	3	4	3	6
Total	3251804	42	40	19	3	111	7	16	6	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·790 in.
Mean temperature	44·6°
Highest point of thermometer	59·3°
Lowest point of thermometer	28·3°
Mean dew-point temperature	38·8°
General direction of wind	Variable
Whole amount of rain in the week	0·02 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 16, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending March 16.	Deaths Registered during the week ending March 16.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2443	1475	59·3	28·3	44·6	7·00	0·02	0·05
Portsmouth ...	115455	12·1	73	50	57·8	31·6	44·3	6·84	0·19	0·48
Norwich	81105	10·9	48	37	56·8	29·0	42·2	5·67	0·00	0·00
Bristol	186428	39·8	107	100	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	56	46	57·6	31·0	44·0	6·67	0·25	0·63
Birmingham ...	350164	44·7	284	115	58·3	31·9	44·4	6·89	0·30	0·76
Leicester	99143	31·0	60	38	59·5	28·7	44·8	7·11	0·04	0·10
Nottingham ...	88225	44·2	62	54	56·2	30·5	44·0	6·67	0·28	0·71
Liverpool	499897	97·9	375	227	58·2	37·9	46·2	7·89	0·38	0·97
Manchester ...	352759	78·6	290	181	59·0	33·5	45·8	7·66	0·41	1·04
Salford	127923	24·7	113	66	58·7	32·8	45·0	7·22	0·40	1·02
Oldham	84004	20·2	71	44	...	...	...	...	...	...
Bradford	151720	23·0	142	87	54·8	35·6	45·2	7·33	0·29	0·74
Leeds	266564	12·3	249	137	56·0	34·0	43·7	6·50	0·12	0·30
Sheffield	247847	10·9	204	133	59·0	35·0	44·2	6·78	0·01	0·03
Hull	124976	35·1	101	62	...	...	...	...	...	...
Sunderland ...	100665	30·4	80	50	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	81	53	54·0	32·0	43·8	6·55	0·36	0·91
Edinburgh	205146	46·3	144	135	53·0	28·0	42·0	5·56	0·20	0·51
Glasgow	489136	94·8	398	264	...	...	...	...	...	...
Dublin	310565	31·9	195	230	59·0	29·0	48·0	8·89	0·38	0·97
Total of 21 Towns in United Kingd'm	7394345	34·0	5576	3584	59·5	28·0	44·5	6·95	0·23	0·58

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·79 in. The highest was 30·15 in. on Sunday morning, and the lowest 29·27 in. on Thursday afternoon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

CLINICAL LECTURES ON INTESTINAL OBSTRUCTION.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

Lecture II.

Gentlemen,—At our last meeting I took the opportunity of bringing under your notice the subject of constipation and intestinal obstruction, and of placing it before you from several points of view. We reviewed, too, the symptoms which these conditions give rise to in their different classes—namely, where the constipation or obstruction is due (1) to powerlessness of the bowel itself; (2) to tumours, bands, and other causes outside the bowel; and (3) to growths within the intestine. And, further, I went on to say that this latter kind of case led me on to the consideration of the subject of intussusception.

It is not my intention to describe fully and to differentiate the symptoms produced by each special cause of obstruction, but I may state in passing that these are distinct enough to allow of our diagnosing one kind of cause from the others. The symptoms provoked by the first class of cases are long-continued and gradually increasing constipation, leading up to complete obstruction, followed by pain, abdominal fulness, and ultimately, it may be, death. When the symptoms are due to the presence of bands they are of an acute character and paroxysmal—abdominal pain, vomiting, and constipation all occurring rapidly, and even suddenly. The acuteness of the symptoms and their paroxysmal nature are the two facts to be remembered.

Now, all these symptoms are common to a large variety of cases, and are due not only to the presence of bands. They are common to hernia—external hernia as well as internal hernia—for I would have you regard hernia as nothing more than constriction of the bowel; and if that occur suddenly, the symptoms are alike whether that constriction be situated outside or inside the peritoneal cavity. Anything, in short, that suddenly produces constriction of any part of the intestinal canal may give rise to these acute symptoms. But these differ widely from the more chronic symptoms we get in atony of the bowel, or when an extra-intestinal tumour encroaches upon the gut. We come next to the third class of cases—those, namely, in which the constipation and mechanical obstruction are due to some cause existing within the bowel itself. Intussusception is the first which presents itself to us.

Now, as to the signs of intussusception. It matters little whether the cause of the invagination is a polypus of a villous or fibrous character growing into the gut, or the presence of scybala; in each case nature's efforts to get rid of the foreign body is the direct agency in bringing about the intussusception. It is rare for the small intestine to be alone affected; more frequently the small passes through the ileo-cæcal valve into the large bowel, and sometimes the large bowel only is the seat of the disease, the bowel itself at times projecting externally through the anus. In all cases we get tenesmus—that is, violent pain with straining—and the passage of blood, mucus, and a little fæces. These symptoms we never find with the first set of cases, nor in obstruction due to bands or tumours; hence we see a great difference in the signs upon which our diagnosis is to be founded.

The importance of a correct diagnosis is great, for upon it our treatment must depend, and this differs in the different classes. In the first set colotomy is the means of relief we must resort to, but in the second class of cases, as where we suspect the presence of a band, abdominal section is the operation to perform. Desperate as this operation may seem, it is the right treatment to adopt, and if neglected death must inevitably follow. In strangulated hernia our rule is to operate; and why should it be different when the bowel is constricted within the abdomen by a band instead of at one of the rings of the abdominal wall? The old authors on Surgery were not well acquainted with the Surgery of the abdomen. It is a branch of our art which has of late years been developed. They knew nothing of ovariotomy, and would have discredited the possibility of many operations which are now performed with success—such, for instance, as a case of my own, which I intend bringing soon before one of the Societies, in which I removed the uterus with both ovaries. On this point, then, I feel strongly, and I affirm that we are not justified in standing by, waiting for death, but should undauntedly perform abdominal section. As we do not hesitate to operate in ovarian disease and in hernia, neither should we here. As to the value of this operation in intussusception I will not so positively assert, but the experience I referred to of Mr. Hutchinson's is, perhaps, good enough to make us favourably entertain the operation even in these cases.

We will now pass on to consider some points connected with a subject distinct from, but still allied to, the above—I mean the subject of hernia. And in my remarks upon this disease I do not intend to dwell upon the characteristic features of hernia, for these, I take it, you are familiar with; but rather to point out some odd complications and results of hernia. In two of the cases I referred to in my last lecture hernia existed, although the symptoms were quite unconnected with it. In each of these cases a band of adhesion was the cause of the obstruction. Now, without attempting to explain why it is, I will state that bands are much more frequently found in persons the subjects of old hernia than in others; and I lay stress upon this fact because in such cases the seat of hernia must be first explored.

If you are called to a patient suffering from symptoms of intestinal obstruction, such as are produced by the presence of bands, and he is also the subject of hernia, you would obviously take the seat of hernia as the starting-point for your operation, and then, after exploring the hernia, you could proceed, if necessary, to open the abdominal cavity. In one of the cases I referred to at our last meeting, you may remember this course was followed, and the patient is alive now, eight years after; and in another, and a fatal case, I was only deterred from adopting the same treatment by the objections of the friends.

This, then, is one relation between hernia and intestinal obstruction, but the symptoms in these instances are not due to the hernia.

One class of cases in which the symptoms are due to hernia, but not to mere strangulation of the bowel, I have firmly impressed on my mind; it is where an adhesion has taken place between the bowel and the intestinal wall, or between the bowel and the sac of the hernia. A case of this sort, I well remember, occurred under the care of Mr. Cock. A patient who for a long time suffered from constipation got at last complete obstruction, followed by abdominal pain, vomiting, and death; and at the post-mortem the transverse colon was found adherent to the neck of the sac of an umbilical hernia. The hernia itself was reduced, but the colon was drawn up into a sharp flexure at the spot adherent, and the portion above the adhesion went on distending until rupture of the bowel occurred. A similar case in a patient the subject of femoral hernia was under the joint care of Mr. Birkett and myself. And a third case occurred in my own practice in a patient from whom I had removed an ovarian tumour. There were numerous adhesions, and one of these, attaching the tumour to the left loin, I ligatured. She got quite well, but some time afterwards symptoms of uncontrollable sickness set in, and she died from starvation. After death a portion of the small intestine, bent upon itself, was found adherent to the loin in the situation in which the ligature had been placed. This spot was marked by the presence of a small quantity of pus. This is no doubt a rare, but still an actual, cause of intestinal obstruction associated with hernia, and explains many cases in both Medical and Surgical practice. In these cases the operation of abdominal section is not to be thought of—it is altogether inapplicable.

A still rarer, if not an unique, case occurred to me in 1870, and consists in the subsequent contraction of the portion of intestine which had been strangulated in a femoral hernia, due to inflammation in the submucous and peritoneal coats of the intestine, and resulting in a stricture of the bowel.

I. H., aged 52, came under my care at Guy's Hospital on April 1, 1870, for a strangulated femoral hernia. She had been ruptured on the left side for four years, and had never worn a truss. The hernia had never given her any trouble till thirty hours before admission, when it came down, and was followed at once by vomiting and abdominal pain. When I saw her, a true femoral hernia existed; it was very painful, and an operation was proposed. Under chloroform, the taxis was applied, with no good effect. Herniotomy was consequently performed, the hernia being reduced without opening the sac. All the symptoms at once ceased; the bowels acted naturally within the week. The wound healed kindly, and the woman was only waiting for her truss to leave the Hospital, when some bowel trouble appeared. These were irregular in their action; at one time constipated, at another loose. Some griping abdominal pain appeared, and at the end of a week, after these

symptoms, vomiting—it being then seven weeks after the operation.

These symptoms persisted, and became worse. Her stomach became so irritable that all food was rejected, and she was kept alive only by nutrient enemata. She sank, however, exhausted on June 13, ten weeks and a half after the operation, and three after the appearance of the abdominal symptoms.

After death, about one inch and a half of small intestine was found contracted and thickened. The upper part was twice the diameter of the lower. No fæces were found below the seat of stricture. It seemed as if the knuckle of intestine that had been strangulated had subsequently contracted and formed a stricture, for at this part the folds of mucous membrane had entirely disappeared, the surface appearing smooth. The folds of membrane above and below were natural. The thickening of the coats likewise points to the same conclusion.

Such a consequence of hernia I believe to be very rare. I am not aware that such has been recorded.

Rare, then, as such cases must be, still you may fairly suspect the presence of such a state of things if, after five or six weeks from the date of an operation for strangulated hernia, the symptoms of intestinal obstruction set in.

Thus far, then, we have seen (1) hernia co-existing with bands of adhesion, (2) hernia followed by the adhesion of some part of the intestinal canal to the old hernial sac, and (3) hernia followed by the contraction of the previously strangulated gut, engaged in the production of intestinal obstruction.

I shall now pass on to consider some other points connected with hernia, and the first I will allude to is the subject of displaced hernia.

No cases demand closer attention than these. When understood and appreciated, they are to be successfully treated; when misunderstood, they are sure to be overlooked. Thus, it may be accepted as a fact that a strangulated hernia with its sac may be bodily reduced within the abdominal ring and behind the abdominal parietes, the intestine being still held by the neck of the sac. This form was first described by the French writers as "reduction *en bloc*" or "*en masse*," and by Mr. Luke in this country (Med. Chir. *Trans.*, 1843).

This displacement of a hernia can probably only take place in the femoral form of rupture, and the whole sac and its contents are pushed up into the abdominal walls, without the contents being returned into the peritoneal cavity. A case of this sort occurred to me in November, 1871, and another similar to it in character has been described by Mr. Morris, of the Middlesex Hospital, in the twenty-second volume of the Pathological Society's *Transactions*. This preparation has been lent to me by Mr. Morris for your inspection, and you will see a large cavity formed behind the rectus muscle and the pubes, dipping deeply down into the pelvis in front of the displaced bladder, and limited posteriorly by the peritoneum and subperitoneal fascia, which had been detached from the abdominal and pelvic walls. My own case I will describe to you. It was as follows:—

On November 9, 1871, I was called by Mr. Berry, of Claremont-square, Pentonville, to see a Mrs. S., aged 64, the subject of strangulated femoral hernia.

She had had a hernia for years, and had worn a truss; it had never given her any trouble. On the present occasion it had been down a week, and for that time local pain, abdominal tenderness, constipation, and vomiting had existed—the vomiting having been stercoraceous for one day.

When I saw her she was very feeble; a hernia the size of a walnut existed in the right groin, clearly femoral. Chloroform was given and the taxis employed with great gentleness without success. Herniotomy was consequently proceeded with. Having exposed the sac, I divided the stricture externally, and, on employing the gentlest pressure, the whole hernia suddenly slipped up within the crural ring. By abdominal pressure it was made to reappear, and by digital pressure to the tumour to disappear a second time—indeed, to clear up some point, I reduced it again, after which some little difficulty was experienced in getting it down; but at last it reappeared for a third time. I opened the sac and exposed the intestine, readily reducing it without making any incision into the neck of the sac, which I took care to keep well down by means of forceps.

A morphia suppository was given, and a grain of opium by the mouth. The bowels acted six hours after the operation, and all pain and vomiting ceased, the wound healing by primary union. The patient, however, was too feeble to rally fully, and died on the tenth day.

No post-mortem could, unluckily, be obtained.

The facility with which the sac was separated from the subjacent tissues is a feature of importance, for had I used great force in the reduction, the whole tumour would have been reduced out of sight, the bowel remaining unrelieved and without the peritoneal cavity, although within the abdominal walls.

This case made me ask myself the question whether the same result might not have taken place had I attempted the reduction of the hernia without operation by forcible taxis.

The majority of cases reputed to be of this nature are probably caused by other lesions of the sac, and the credit of having made this out is due to Mr. Birkett, who, in an able paper read before the Medical and Chirurgical Society, 1859, gave the following explanation (the observations only apply to *inguinal* hernia):—

In the *first* form the neck of the sac becomes detached by force from the internal abdominal ring and pushed upwards beneath the abdominal walls, the intestine within the sac being strangulated by the orifice of the sac.

In the *second* form, "as the effect of forcible and long sustained compression of the hernial tumour, the delicate serous membrane of the sac is rent, burst, or torn, and the hernia makes it escape through the aperture into the subserous connective tissue. Its course outside the peritoneal sac is advanced by continued pressure; and, detaching the connexions of the neighbouring peritoneum, it forms for itself a pouch between that serous membrane and the internal abdominal fascia."

The posterior part of the neck of an inguinal hernia sac is the usual seat of the rupture, and the position of the artificial sac is downwards and outwards. The congenital form of hernia sac is also the more prone to the accident.

The indications of the accident having taken place are as follows—I give them in Birkett's words:—"The tumour becomes flaccid, and therefore smaller; the bulk of the tumour slowly diminishes as the pressure is continued, until at last very little, if anything, can be felt; but the *Surgeon has failed to experience that sudden jerk so characteristic of the escape of the hernia* from the gripe of the mouth of the sac, as it enters the abdominal cavity. After the effects of the chloroform have passed away, *all the symptoms of strangulated bowel recur*, and perhaps with increased force; even the tumour itself may reappear and recede on the application of slight pressure. When this condition is found, there is but one form of practice to follow, and that is the exploration of the sac; at its neck two orifices will be found, one dipping down into the artificial sac, and the second into the abdominal cavity—from the latter the bowel will be seen to pass through the former into the artificial sac. The Surgeon must then draw out the bowel from the sac through its false orifice, and, having freely divided the true neck or abdominal orifice of the sac, replace the intestine; and "the exercise of great care and caution is needed to prevent the entrance of the hernia once more into the abnormal space outside the peritoneal cavity."

As a *third* form, an intermuscular, interstitial, or *intra-parietal* sac has also been described, being a kind of diverticulum from the inguinal sac. It is almost always found, according to Birkett, associated with the congenital form of hernia; and this sac may be found in the anterior abdominal walls—in an upward, outward, or inward direction—mostly behind the abdominal muscles, in front of the abdominal fascia, in some instances in front of the external oblique muscle beneath the skin. Birkett refers to a case recorded by Scarpa, and a second by Dr. Fano.

In a second class of cases, "the sac extends into the iliac fossa, and rests upon the iliacus muscle between the internal abdominal fascia and peritoneum; or, directing itself inwards, it passes behind the horizontal ramus of the pubes, and reaches the side and front of the urinary bladder."—Birkett.

At Guy's Hospital a preparation taken from a patient of my own confirms it. The disappearance of the tumour without the characteristic jerk, and the persistence of the symptoms, characterise all these three forms. The treatment in all is that described under the second form.

To Mr. Birkett, for his paper to which I have alluded, we owe a great deal. Not only is his description admirable from a literary and scientific point of view, but it is of great assistance to us at the bedside, and by its clearness and accuracy we are able to stand by and say to which class of these cases any individual instance belongs. Here is a case in which the diagnosis was rendered certain with the aid afforded by his investigations. It is an instance of the first class of cases:—

On January 6, 1872, Dr. Paul, of Camberwell House, called me to see an imbecile patient of his, aged 27, who had a congenital hernia, with all the symptoms of strangulated intestine. This patient had always worn a truss. Vomiting, abdominal

pain and tenderness in the seat of the hernia having existed for twenty-four hours.

I found the patient with the symptoms described, with the right testicle in the inguinal canal, and only a slight fulness at the internal ring; but above the ring, and occupying a space as high as the anterior superior spine of the ilium, and halfway between this process and the umbilicus, beneath the abdominal parietes, there was a marked, prominent, tense, elastic, and painful swelling. The swelling was pear-shaped, the end of the pear appearing at the internal ring.

Chloroform was given, and the inguinal canal opened, the testicle being exposed. The internal ring was then slightly enlarged, and directly this was done a knuckle of black congested intestine appeared. This knuckle was not in the abdominal cavity, but in a separate one continuous with the vaginal process of peritoneum that I had opened. I passed my finger freely into this cavity in search of the abdominal ring through which the hernia had descended, and I found the opening about the size of a sixpence—just enough to admit the tip of the finger at its upper and inner corner. Several inches of intestine existed in the sac. With the guarded herniotome I enlarged the opening of this ring, but found much difficulty in reducing the bowel, for I could only just reach the opening, and the walls of the cavity gave before the taxis. I then made forcible traction upon the testicle in the canal, and was pleased to find the cord ran upwards through the opening by which the bowel had descended. The intestine was then readily reduced. Opium was ordered, and the wound brought together.

On the next day the bowels acted, all symptoms having at once disappeared after the operation. Some suppuration followed in the sac, but no bad symptoms, the man convalescing.

Remarks.—This case was one of unusual interest, and was valuable, as it went far to prove the truth of Mr. Birkett's investigations into this form of hernia. When I first saw it, I was able to recognise its nature, and to know how to deal with it, simply from having made myself acquainted with Birkett's explanation of the masked hernia; for the case had all the clinical history and symptoms of a hernia into the vaginal process of the peritoneum, this process having been expanded towards the abdominal cavity, instead of externally—the constant wearing of a truss having probably done much towards producing this end. That the sac was really a dilated vaginal process, and not a new sac, I think was fairly proved when I found the cord passing into the abdominal cavity, out of which the intestine that had been strangulated had passed. The success of the case was better than I expected, for some inches of intestine were involved, and these were as black as jet from congestion. Possibly the feeble intellect had something to do with this absence of inflammatory action.

In the third class of cases, in which an intra-parietal sac exists, or that in which the neck of the sac becomes protruded, and the contents are forced into the dilated portion, the escape of its contents from the sac may take any direction, either downwards, inwards, upwards, or outwards. I will quote to you the following instance of this kind of case:—

On September 23, 1869, M. T. was admitted into Guy's Hospital under my care; he was a labourer, and 36 years old. He had been ruptured in the right scrotum for fifteen years, and had worn a truss. Whenever it came down it was easily reducible, except on two occasions when some difficulty was experienced. Two weeks before his admission it came down, and after its reduction he experienced pain, which kept him from work for three days. He remained well till two days before he came to Guy's, when the hernia came down into the scrotum. He pushed it up, however, by manipulation after a little trouble, but it did not go up as usual with a rush. After its reduction vomiting appeared and local pain; this continuing he came to Guy's. For the two days his bowels did not act.

When I saw him he had all the symptoms of strangulated bowel—vomiting, local abdominal pain, and constipation. There was no hernia down, but some fulness at the internal ring, and above this, towards the crest of the ilium, a tense, globular, painful swelling was to be felt. An exploratory operation was determined upon. Under chloroform I then laid open the inguinal canal, and I exposed the empty hernial sac with the testicle, showing that the hernia was of the congenital form. I then passed my finger into the internal ring and came against a tense piece of intestine. I enlarged the opening, and this intestine at once protruded; it was very dark from congestion, but glistening. On following up this intestine my finger passed downwards and outwards into a distinct cavity which was filled with bowel; but it was not the abdominal cavity—it was a distinct cavity with a smooth surface, and about the size of an egg. At its upper surface it communicated with the hernial sac, and above this with the abdominal cavity. I then increased the size of the abdominal orifice, which was very small, drew out the strangulated bowel from its intraparietal sac, and returned it into the abdomen. The intraparietal sac was thin, and very distinctly felt; it was placed almost entirely below the ring, which was pressed upwards.

All symptoms ceased directly after the operation, and everything looked well, when peritonitis appeared, and death took place on the fourth day. The preparation I have shown you illustrates the existence of a distinct sac from which the hernia had been removed by the operation.

ORIGINAL COMMUNICATIONS.

CLINICAL REMARKS ON THE SEVERAL FORMS OF PULMONARY PHTHISIS.

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(*Continued from page 152.*)

Alveolar Catarrh before spoken of may set up local tuberculisation; why disease tubercular, not simple chronic inflammation; scat; progress independent of pneumonia: How different from miliary tubercle; mode of extension by continuous growth; clinical differences—Chronic Tubercular Phthisis the best clinical name for this disease—Relationship of local tuberculisation to local, miliary, and general tuberculosis one of degree or intensity as regards infective origin or specific constitutional nature—Distinctive characters of Chronic Tubercular Phthisis; prognosis—Sketch of a case of acute Tuberculo-pneumonic Phthisis; distinguishing characters from Acute Tuberculosis and Acute Pneumonic Phthisis—General rule as to prognosis; necessity of watching the signs of fever as well as physical signs—Table representing chief varieties of phthisis, with their distinguishing characters.

In speaking of alveolar catarrh, it was remarked that, as in some cases it may proceed to catarrhal pneumonia of varying degrees of intensity, in which the pneumonic process, with its intra-alveolar products, gives the prevailing character to the disease, so in other cases the lymphatic or adenoid structures which so largely enter into the formation of the lung stroma may, under the same primary catarrhal irritation, take on the more prominent growth; and great thickening of the alveoli, grey induration, in which some individual granules of tubercle may or may not be distinguishable by the unaided eye, is the result—in fact, we have a local pulmonary *tuberculisation* of slower and more insidiously destructive progress than caseous pneumonia, so far as the lung is concerned, but more obstinately and continuously progressive, more prone to be succeeded by early implication of the other lung, supposing both are not from the first implicated, more quickly followed (sometimes even preceded) by disease in other organs, particularly the larynx and intestines; and, in short, though a chronic or subacute disease, yet one of more early average termination than the corresponding pneumonic forms of phthisis.

It will no doubt be said by those who only admit the existence of tubercle in the discrete or disseminately grouped miliary forms that this *local tuberculisation* is no tuberculisation at all, that it is merely chronic inflammation. If so, it is an interstitial inflammation of a very special kind, that in typical cases spreads through the lung from apex to base, with a well-defined grey advancing margin, immediately beyond which the highly vascular but crepitant lung-tissue presents a striking contrast to it. On examining, however, more minutely with a lens, the alveolar walls are found considerably thickened to some little distance (perhaps half an inch) beyond the defined margin, though the alveolar spaces are not occupied with catarrhal cells—at least, not uniformly so, or to any material extent. I am not aware of any mere inflammation at all analogous to this in its invasive characters. It most resembles lupus of the cutaneous surface, which, I presume, no one would venture to describe or treat as merely inflammatory. On the other hand, this form of tubercle (as I think it must be considered) differs from miliary tuberculosis pathologically by its primarily attacking one portion of one or both lungs (almost always the apices), and spreading therefrom, not by the

dissemination of miliary tubercles far beyond the margin of advance, but by a continuous growth, involving destruction and subsequent excavation of the affected tissue. Clinically, the peculiarly insidious origin and progress of the disease with the gradually increasing *malaise* and anæmia, nocturnal cough, irregular fever, and the physical signs at first very obscure at one apex gradually increasing and developing at the other, are in accordance with its pathology, and distinguish it also from the still more severe miliary form of tubercle. "Chronic tubercular phthisis" seems the best clinical name for this variety, of which the pathological process is, as above stated, best represented by the term pulmonary tuberculisation. Miliary tuberculosis, though not differing essentially in anatomical characters from the infiltrated form of tubercle above spoken of under the terms pulmonary tuberculisation, grey induration, etc., appears to differ somewhat in its mode of origin, which has been proved by late experiments, and is now generally admitted to be *infective*. It may be, however, that we should better appreciate the relationship, so striking anatomically, which exists between these two forms of tubercle if we were to bear in mind that as there are two degrees of miliary tuberculosis—viz., first, that in which the tubercles are widely dispersed through many organs (infection through vessels?), second, that in which the granules are merely sprinkled around some old cheesy disease or induration (infection through lymphatics?)—so in a similar fashion a still less intense degree of infective power, amounting only to a specific irritation, may lead to the production of tubercle more limited still in extent, affecting only the parts contiguous to the infecting agent. Further, with a certain predisposition, it seems certain that both in animals and men miliary tuberculosis may arise from the mere irritation of a catarrh or local lesion, the specific quality being yielded by the constitutional peculiarity of the patient. And it may, correspondingly, be a question of degree of constitutional aptitude, whether the disease shall be as local as the irritation giving rise to it, or shall extend only by contiguity (it may be with gathering intensity) from the point of origin, or whether it shall at once take on the more virulent diffused miliary form. These observations are speculative in some degree, but they surely find some support in clinical experience, and more from recent anatomical inquiries.

That some constitutional aptitude, hereditary or acquired, is necessary for the occurrence of tuberculosis is proved by its so often failing to arise in cases of chronic phthisis and scrofulosis, in which for months and years inflammatory products in every stage of degeneration have existed as apparently efficient sources of infection; while in other cases the pathologist must with much diligence hunt the body through of one dead of tuberculosis to discover the required *cheesy mass*.

Returning now to the consideration of chronic tubercular phthisis, it is very difficult to depict a case with sufficient accuracy in writing to bring out those somewhat minute differences, the accumulations of which build up the distinction between the cases of catarrhal pneumonic phthisis already described, and those of chronic pulmonary tuberculisation, the pathology of which we have referred to. And indeed it has already been pointed out that alveolar catarrh is really the first stage of both these diseases—or, rather, it is the true first stage of the one (pneumonic phthisis), and the determining cause of the other (chronic tubercular phthisis).

It will, then, perhaps be most instructive to enumerate those symptoms and signs the presence of which will warrant us in regarding the case as one of tubercular phthisis—as one, at all events, in which tubercle is the prevailing lesion; for it has been before stated that chronic tubercle is rarely wholly unmixed with other inflammatory products.

So far as temperature is concerned, there is nothing at present known characteristic of chronic tubercle. It is at times elevated, during which periods there are fresh accessions of disease, and the non-febrile intervals are of varying duration. In this respect the disease presents no important difference, so far as I have been able to observe, from the chronic pneumonic forms of phthisis. The physical signs are more characteristic. The obscure signs of alveolar catarrh do not give place to the well-marked dulness and coarse crepitation or crackling of catarrhal pneumonia, but to continued weakness of respiratory murmur, with impaired expansion or actual flattening, while moist sounds may be altogether absent, or one or two dry crackles may be elicited on cough. The percussion-note becomes hardened, and we may suddenly be surprised by the development (having omitted to examine the patient for a week or two) of some feeble, blowing respiration, of hollow quality, still very dry, which increases in the same obscure way until an unmistakable cavity is present. This formation of a cavity by a process of dry crumbling is very characteristic of the typical form of pulmonary tuberculisation.

Huskiness of voice, or actual aphonia, is a common first symptom in this variety of consumption, and is, I think, characteristic of tubercle. The huskiness may clear off, but the voice remains more or less altered permanently in quality. Too hasty a diagnosis must not, however, be made from this symptom, lest a grave prognosis be rested upon a simple laryngeal catarrh. The digestive organs are early affected; the tongue presents a scanty white fur on a very red ground, with prominent red papillæ, an appearance which is very significant, still more so if the fur clears off in patches, leaving raw-looking glazed surfaces. This tongue is almost always significant of intestinal lesion, the symptoms of which (alternating diarrhœa and constipation, with colicky pains, especially after food) soon appear.

As to prognosis, these cases admit of considerable temporary relief, and may appear to do well for the first few months. The physical signs progress, however, and I think the duration may be pretty safely reckoned as within two years of the first appearance of definite signs. The intestinal and laryngeal complications cause great distress towards the last, and hasten the fatal termination.

Patients the subject of this form of phthisis are usually of slender figures and good features. Among them are those more interesting examples of consumption or decline that novelists prefer to describe. This variety is, however, much more uncommon than the coarser pneumonic forms of phthisis.

The following sketch illustrates the phenomena characteristic of acute tuberculo-pneumonic phthisis—*i.e.*, a case of pulmonary tuberculosis, in which the tubercular granulations and groups of granulations are attended with much pneumonia, which latter is the main element destructive to the lung; while the former appears to stamp the disease with its peculiar adynamic characters, its continued fever, and determined progress without check to a fatal termination.

A woman, aged 31, was admitted into Dr. Cotton's ward at the Brompton Hospital in October last, and seen by me in his temporary absence. She had had "inflammation of the lungs" (there was no sign of old pneumonia post-mortem) two years ago, but had suffered from more or less cough, with frothy expectoration, for three years. Four weeks ago, however, she had had slight hæmoptysis (two teaspoonfuls), which did not clear off for five days. She had since suffered from night-sweats, emaciation, cough, and pain in the side and between the shoulders, of which she complained on admission. The pulse was 112; the tongue furred; catamenia regular. She knew of no family predisposition to phthisis. The physical signs on admission were—harshness at the right apex, with subcrepitant rhonchus; at the left, jerking respiration and prolonged expiration. She lost rapidly in weight, however, losing 3¼ lbs. between October 26 and November 14. On November 8 the physical signs were noted as unchanged. On the 21st she was much worse, with a red tremulous tongue, a rapid pulse, and great breathlessness, and much heat of skin. She was sitting up, though she could with difficulty stand from the trembling of her limbs and weakness. Subcrepitant rhonchus was found diffused throughout the right side behind, with some defect in resonance not amounting to dulness. At my request Mr. Garton, clinical assistant, took the temperature night and morning from this date. During this time—twenty-nine days (five days the temperature was not taken)—the maximum morning temperature was 103°, average 101·6°; maximum evening temperature 104°, average 102·3°; difference between the average morning and evening temperature ·7°. On the frequent occasions when I saw the patient in the middle of the day the skin was uniformly hot, and the pulse very rapid—usually about 120. Meanwhile the pulmonary physical signs advanced, the crepitation became more abundant, and extended through both lungs. There were signs of breaking down at the right apex, though the presence of a cavity could not be ascertained. On December 19 there was present "diffused blowing respiration, with sonorous rhonchus and scattered crepitation more abundant at the bases, with some dulness; high temperature, and much dyspnœa." On December 15 the patient began to be troubled with diarrhœa, which continued more or less to the last. The emaciation and loss of power rapidly increased, the smooth red tongue became white with aphthous patches, and she gradually sank, having never evinced, however, any delirium or other morbid brain symptoms.

The *continued* fever, the great and early prostration, the diffused crepitation, with no defined dulness, rendered the diagnosis of pulmonary tuberculosis being the prevailing lesion

a tolerably certain one, while the absence of that degree of utter prostration, with occasional muttering delirium, and the early presence of decided pulmonary signs, prevented one from regarding the case as one of acute general tuberculosis. There was, however, but little satisfaction to be derived from this reflection, for the prognosis was, so far as present knowledge could decide, inevitably fatal.

Post-mortem the lungs were found studded with racemose groups of tubercle surrounded by ill-defined areas of soft catarrhal pneumonia, all in active process of formation and degenerative softening; the right apex was breaking up into small cavities. There was no miliary tubercle on the pleural surfaces.

It will be observed that in this case there was a history of "inflammation of the lungs" two years before her fatal attack, and of three years' slight occasional cough and frothy expectoration. More or less long-continued bronchial catarrh is the very common precursor of pulmonary tuberculosis. It has before been observed that catarrh long limited to the bronchial mucous membrane may extend to the alveoli, giving rise to simple alveolar catarrh, catarrhal pneumonia, or tuberculosis, as something we do not yet understand shall determine.

There are, it is true, certain cases of acute pneumonic phthisis (galloping phthisis) in which the broncho-pneumonia is so diffused as to render the diagnosis from acute tubercle very difficult; this matters little, however, for the prognosis is identical in the two kinds of cases. But the acute pneumonic phthisis, as a rule, proceeds by consolidation rapidly extending from one apex, or more rarely one base, with increasing dulness, and abundant metallic crepitant sounds, rapidly changing to gurgling. In such cases, at the moment when the condition of the patient seems almost immediately hopeless, the extension of the disease may stop, the temperature (more intermittent than in tubercle) may fall, and the patient may again begin to pick up strength, while yet auscultation informs us that breaking down of the products of inflammation is still proceeding. Such cases point out what will generally be found a true guide to prognosis'—viz., that the more prominently the symptoms of acute phthisis are attended with *defined* auscultatory and percussion signs, the more hope is there that the active disease may subside and the patient recover from the attack with so much damaged lung; in fact, the more certainly is the disease to be acute *pneumonic*—and not acute *tuberculo-pneumonic*—phthisis, or acute tuberculosis. But it is imperative to watch closely, not the physical signs alone, for they will mislead us, but the signs of fever (temperature, tongue, and pulse), to learn the moment when the spread of the disease stops, and when tonic medicines, food, oil, etc., will have their due effect. Did we judge by the stethoscope alone, we should find softening and excavation signs increasing long after this period of true pause, because the products of the past inflammation must run through their normal stages of caseation, or liquefaction, and removal, and these mere physical processes largely contribute to the production of auscultatory signs. Nor is it easy by physical diagnosis alone to say when the limit of extension of the disease has been reached.

I may, perhaps, usefully conclude this series of papers by summarising in a tabular form the views advocated as to the distinguishing characters of the principal varieties of phthisis, which views have been acquired from the observation of a very large number of cases and the making and supervision of many post-mortem examinations

Table representing the chief Varieties of Phthisis, with their distinguishing Anatomical Characters.

Primary Lesion.	Pathological Nature and Tendencies.	Anatomical Characters.	Variety of Phthisis.
Alveolar catarrh ... Alveolar catarrhal pneumonia.	Terminates in recovery, or proceeds to catarrhal pneumonia. 1st degree terminates in resolution and recovery, or alveolar collapse. 2nd degree terminates in caseation, softening, excavation, or induration from thickening and agglutination of alveoli. 3rd degree terminates in simultaneous degeneration and softening of alveolar wall and contents; ulcerative destruction.	Large cells of epithelial type, more or less blocking alveoli; greater or less degree of implication of alveolar wall, and proliferation of its elements.	Catarrhal pneumonic ph. (*progress:* acute, chronic, intermitting).
Pulmonary capillary hæmorrhage.	(*α*) Copious hæmoptysis may be coincident with the commencement of, and may perhaps determine, *pneumonic phthisis*, giving rise at least to secondary pneumonia.	Coagulated blood blocking alveoli, with surrounding inflammatory changes.	(*a*) Hæmorrhagic ph.
Pulmonary tuberculosis.	Of primary irritative origin, or part of general tuberculosis, or supervening upon caseous pneumonia or chronic tubercle— 1. Pure, terminates in death without breaking down of lung. 2. When mixed with pneumonia, caseation softening and ulcerative destruction of tissue.	Nuclear growth of adenoid kind occurring as miliary grey granulations—(1) disseminated singly, or (2) in racemose groups, often associated with catarrhal pneumonia.	1. (a) 2. Acute tubercular or tuberculo-pneumonic ph. (*progress:* acute, fatal).
Pulmonary tuberculisation.	3 (*a*). Irritative local grey induration, secondary to caseous pneumonia. (*b*) May be the primary disease progressively invadiog lung.	Coalescing granulations, proceeding to grey induration from fibro-nuclear development; degeneration.	3 (*b*) Chronic tubercular ph. (*progress:* subacute or chronic, continuous).
Pulmonary fibrosis	Present more or less in association with the chronic forms of the above varieties; *never primary;* when so marked in unilateral cases as to give a special clinical character to the disease, is conveniently named separately.	Contractile fibroid cicatricial tissue, the result of proliferation of elements of fibrous stroma of lung, including vessel sheaths and lymphatic tissues, mingled with products of primary disease.	Fibroid ph. (*progress:* very chronic; with sometimes long quiescence).
Pulmonary arterial hæmorrhage.	(*β*) Copious hæmoptysis may be a marked and recurring symptom in the more chronic indurative forms of phthisis, attended with quiescent or slowly forming cavities.	Aneurismal dilatation, or erosion of vessels within cavities.	Ph. with recurrent hæmoptysis.

(a) Acute tuberculosis cannot be regarded as a variety of phthisis, though it frequently supervenes as a fatal complication of the disease.

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

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VII.

SARCOMA (*Concluded*)—LYMPHADENOMA.

Melanotic Sarcoma—Osteoid Sarcoma: Two varieties—Degenerative Changes common to these Tumours—Mixed Sarcomata—Lymphadenoma.

BEFORE quitting the subject of sarcoma, those varieties which depend upon degenerative changes or other modifications of nutrition must be briefly noted. This is the more necessary, because such variations have usually attracted far more attention than the changes in minute structure which have been already referred to. The difference between a bone-like and a soft fleshy growth is far more marked than between two forms of fleshy tumour containing round or spindle-cells respectively, although clinically and anatomically the latter distinction may be by far the more important. The terms "melanosis," "osteoid cancer," and "colloid," show how much stress has been laid on these accidental conditions, and how necessary it is to study them in connexion with the subject.

MELANOTIC SARCOMA.—It was stated, when treating of carcinoma, that by far the greater number of pigmented tumours are really sarcomas, of either the round- or spindle-cell variety. In a case, to which reference has been already made, of a woman dying with innumerable melanotic tumours over the body, chiefly lying in the subcutaneous connective tissue, but also invading the lymphatic glands, breast, and one kidney, the cells were round or roundly oval, and those cells in which the pigment was contained were of considerable size. In this instance an old black wart was the seat of the primary manifestation, but in the melanotic sarcomata so

frequently met with springing from the choroid of the eye, the cells are more commonly of a spindle form. I once examined the head of a man dying with cerebral symptoms many months after an eye had been removed with such a growth, and I found several black masses of considerable size scattered through the brain, all of which were made up of beautifully delicate pigmented spindle-cells.

Whether the cells are round or oval the striking fact about these growths is that the pigment granules are contained in only a very small minority of the cells, although the tumours may be as black as ink; and it is to be further noted that although the rule is that all the secondary growths are also black, the amount of pigmentation may vary considerably, and some of the visceral masses may be quite pale—still, however, presenting the same cell-forms as the primary tumour. No organ is exempt from the liability to become the seat of these melanotic growths. By far most frequently encountered in the subcutaneous connective tissue, the muscular tissue of the heart itself may occasionally be infiltrated with nodules of the disease, and I have seen a case in which a melanotic sarcoma of the eye was followed by the development of similar black infiltrations in nearly every organ of the body.

The great clinical indication in all examples of melanosis is to cut out the primary tumour as speedily and as widely as possible, as the early and free dispersion of the germs soon renders the extirpation of the disease impracticable.

Osteoid Sarcoma.—Bone-like sarcomata (commonly styled "osteoid cancer") may present very different structures. Springing usually from the periosteum, or from the medullary cavity of bones, the cells may be of either of the usual forms, and the peculiar character of the growths may depend upon either a growth of true bone ramifying through the tumour as an open spongy network, or an infiltration of the intercellular material with calcareous salts. In the latter case microscopic sections of the brittle chalky mass exhibit hardly any definite structure until a drop of dilute hydrochloric acid has been allowed to flow under the covering-glass. The observer, following the drop of acid, then perceives a copious effervescence, and, as the gas-bubbles float off the field, the confused granular network clears away, and reveals the delicate round or spindle-cells of which the tumour is constructed. No lacunæ nor canaliculi nor other bone elements are seen in such tumours, nor is there any cartilage or other structure suggestive of true ossification. The growth is simply an ordinary sarcomatous formation, in which the granular soft material between the cells is hardened by saturation with bone salts. Accordingly, although the secondary growths may be affected in the same way, it is not uncommon to meet with them quite soft or fleshy, and exhibiting only the cell structure of the primary tumour *minus* its calcareous infiltration.

True ossifying sarcoma is more rarely met with, and presents a very different appearance under the microscope. The bulk of the growth still consisting of round or spindle-cells, with soft intercellular material, a spongy network of bone pervades the cellular structure. The new bone varies in amount in different parts of the tumour, but almost everywhere lacunæ and rudimentary canaliculi are clearly recognisable, and at the margin of the growing bony spicules is commonly either a small-celled medulla-like structure, with perhaps some myeloid elements, or a cartilaginous tissue from which the bone is directly developed in the usual way. In this variety, as in the former, the rule is for the secondary formations to present a similar tendency to ossification; but here, also, the rule is frequently departed from, the remote growths often showing only the sarcomatous cell-structure of the unossified portions of the primary tumour.

It is clearly important to distinguish between the denser forms of these ossifying sarcomata and the simple osseous growths which they sometimes closely simulate; for the simple osseous tumours are probably never malignant, whilst the presence of any admixture of a soft fleshy substance having the microscopic characters of sarcoma is of grave prognostic significance, and, although by no means forbidding operation, necessitates the utmost care to insure the complete removal of the tumour. As in these cases the medullary canal of the bone is sometimes found to contain nodules of the disease at some distance from the neighbourhood of the large tumour, it would seem to be a sound rule to resect the affected bone entire, rather than to trust to sawing across it at an apparently safe distance from the morbid swelling, although, indeed, this last practice has the sanction of so high an authority as Mr. De Morgan.

Degenerative changes, due to fatty or mucous metamorphosis, or to the results of haemorrhages, blocking of vessels, inflammation, or gangrene, are all commonly met with in rapidly growing sarcomas—the mucous degeneration producing a colloid appearance of parts of the tumour which is specially striking, and to which reference has been already made when speaking of "Colloid Carcinoma."

Mixed Sarcomatous Tumours are sometimes so puzzling to students that they need a passing reference. When one remembers that a sarcoma is merely a tumour resulting from the reversion of healthy connective tissue to a fœtal type, the cells of which continue to multiply without, as a rule, undergoing any special differentiation into a normal adult tissue, one is prepared to meet with a tendency to develope into different forms of connective tissue in various sarcomas, and even in several parts of the same tumour. Now, since the histological group of "connective tissues" includes mucous, areolar, fibrous, elastic, fatty, cartilaginous, and bony tissues, there need be nothing very surprising in meeting with a tumour presenting a combination of all these varieties more or less completely developed; and it does sometimes happen that nearly all these structures may be encountered in different parts of the same tumour. Where this is the case, the point of chief prognostic importance is the amount of primitive cell-structure showing no such development. Where this is great, the bulk of the tumour presenting a simple cellular structure, the presence of well-marked cartilage or bone here and there is no surety of the innocence of the tumour. Secondary formations, in which the spindle or other cell-forms predominate, may be expected; but where the greater portion of the tumour exhibits some one fairly developed adult tissue (and especially where this tissue is strictly homologous—as lipoma amongst fat, or fibroma in fascia), the prognosis is more favourable, provided that the tumour itself is thoroughly extirpated.

Lymphadenoma.—Amongst the various new formations to which Surgeons have in former times given the common name "encephaloid cancer," perhaps none is still so seldom recognised as that to which the name "lymphadenoma" has been given by modern pathologists, to signify the close correspondence between the microscopic structure of this growth and that of the follicular portion of a lymphatic gland, known as the "adenoid tissue of His." It is only quite recently that special attention has been called to this variety, in England more especially by Dr. Sanderson and Dr. Murchison, and in France by MM. Cornil and Ranvier. The disease may be shortly described here as one in which soft infiltrating tumours of various sizes are scattered through the several organs and tissues of the body in a manner precisely resembling many of the soft sarcomas and carcinomas already noticed, but made up of very different and sufficiently characteristic elements.

Usually commencing in an enlargement of lymphatic glands, and often limited to such hypertrophy, many glands being matted together to form one vast mass, the morbid structure is often met with invading the internal viscera—as the spleen, lungs, liver, and kidneys—and even the muscles and bones are not always exempt from the disease. The tumours are usually of a greyish or yellow-white colour, sometimes as distinctly encapsuled as a lymphatic gland, but in other cases passing gradually into the structure of the part in which they are seated, varying in size from a miliary granule to that of a cocoanut, or larger, and in consistence from a creamy pulp to that of a cirrhosed liver, and yielding a more or less abundant milky juice. This juice, when examined microscopically, is almost sufficiently diagnostic, for it contains none of the cell-forms already described as occurring in carcinoma or the commoner varieties of sarcoma, but only small, spherical, faintly granular corpuscles, precisely resembling leucocytes or the white corpuscles of the blood. With these there may be free granules and a few somewhat larger distinctly nucleated cells. It is, however, only when thin sections are taken from bits of the tumour hardened in chromic acid solution that the true structure is seen.

Sections thus prepared show a fine homogeneous-looking network, enclosing in its meshes, either singly or in small clusters, the pale spherical corpuscles seen in the juice. In the early stages nuclei are to be distinguished in certain of the angles of this network just as in the stroma of a lymphatic gland; but in the later stages—those generally presented to the Surgeon—the network is formed of stouter fibrils, in which the nuclei are less apparent. The structure then closely resembles that of a lymphatic gland in a condition of irritative induration; and it is this structure, with the fibrillated stroma more or less largely developed, that forms the bulk of these tumours.

To see this stroma distinctly it is necessary to pencil out a very thin section under water. When the corpuscles which obscure the view have been thus mostly chased away, the irregular network is clearly visible. In the accompanying

sketch (Fig. 19) this has been done, and the thickened network shown is a fair sample of the usual structure of these tumours, although the absence of nuclei from the angles of the meshes

Fig. 19.

Fig. 19.—Very thin section of a lymphadenomatous tumour pencilled out under water, showing the delicate irregular network and a few remaining corpuscles. Magnified 220 times.

takes away the most characteristic element and that which specially distinguishes this growth from the small round-cell sarcoma. The latter, however, is so seldom accompanied by any notable fibrillation of its stroma, that a distinct small-meshed network is of itself sufficient to stamp the lymphadenomatous character of the growth presenting it. Whether these lymphoid formations originate in the proliferation of ordinary connective tissue, or whether they consist of hyperplasia of pre-existing adenoid tissue, is a question difficult to decide. In all their clinical features of rapid infiltrating growth, and implication of adjacent glands, as well as the formation of similar swellings in remote parts, they are probably as malignant as the most virulent carcinoma, and need the same treatment. The tumours differ from the similar masses present in leukæmia only in the absence of any obvious alteration in the blood. The histological structure is the same in both cases, but there is no notable excess of white corpuscles in the blood of a patient with lymphadenoma, as there is in so marked a degree in leukæmia.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

CLINICAL LECTURE ON A CASE OF ULCER OF THE STOMACH WITH PROFUSE HÆMATEMESIS.

DELIVERED JULY 8, 1871.

By W. H. BROADBENT, M.D., Physician to the Hospital.

Gentlemen,—The case I wish to bring before you to-day is that of a woman named Mary B., aged 29, a cook, whom we have just seen in the Victoria Ward. She was admitted June 16, in a state of extreme prostration from loss of blood, which she had been vomiting in large quantity during the preceding week. Four years ago she was in the Hospital on account of a similar attack, after recovering from which she remained quite well till fourteen days before her admission, when she began to have pain in the epigastrium. A week later the pain became more severe, and was felt in the right hypochondrium as well as in the epigastric region, and she now began to be sick, bringing up on two occasions a considerable amount of blood. Two days later the vomiting of blood recurred, and continued more or less up to the time of her admission, the blood being always dark and clotted. The amount of blood vomited could not be ascertained, but it had been very great. The patient was extremely pale—as pale, indeed, as a living person can well be—the lips, mucous membrane of mouth, and conjunctiva white and bloodless. Pulse 140, weak and sharp; breath short; expression anxious and depressed; she complained of headache, faintness, and thirst; had no appetite, and vomited immediately if she took food of whatever kind.

There was no doubt or difficulty here as to the diagnosis; no room for question whether the blood might not have come from the lungs, and scarcely any ground for hesitation in forming the opinion that its source was an ulcer, and not capillary hæmorrhage from the mucous membrane of the stomach generally. Cases, however, are sometimes met with in which from disease of liver the portal circulation is obstructed to such a degree that blood exudes in large quantity from the gastro-intestinal mucous membrane, and is vomited or passed in the stools; this, moreover, though usually occurring in advanced life and in spirit-drinkers, may happen in comparatively young people. In February of this year I had under my care a well-nourished, muscular young man, of 23 or 24, who up to two months before death had been apparently quite well. He then began to vomit blood at intervals, and finally died from profuse hæmorrhage two days after his admission into the Hospital. Here the liver was small, the left lobe represented only by a thin layer of tough fibroid material, apparently consisting of the capsule from which all proper hepatic structure had disappeared, the rest of the organ irregular on its surface, and traversed by bands of fibroid tissue; the mucous membrane of the stomach was almost black, and had exuded blood from every part; the spleen was large, weighing four pounds, another consequence of the venous obstruction in the liver. The patient had been at work a few days before death, and the body was muscular and well nourished. The history of the case, however, we are now concerned with was clearly one of gastric ulcer, and all the more so from there having been a previous attack.

In ulcer of the stomach we have two sorts of history: one chronic, of habitual pain in the epigastrium, often shooting through to the left shoulder-blade, coming on usually soon after food; or sometimes the pain is worst when the stomach is empty, possibly from action upon the ulcerated surface of gastric juice poured out in consequence of the irritation due to its presence. With the pain there is tenderness on pressure in the epigastrium, the tender spot being frequently curiously circumscribed, and vomiting at various intervals after meals—sometimes severe, and all but incessant, at others occasional and capricious. Pyrosis is also common. Sooner or later blood will be seen in the vomited matters. If these symptoms continue long, as they are apt to do, and especially when they are severe, the patient necessarily becomes weak and emaciated, and may die from slow starvation and repeated loss of blood; or he (more frequently she) may be hurried off by severe hæmorrhage, or by perforation of the stomach. The two latter events are less common than might be expected from the size and depth of gastric ulcers as seen after death, in consequence of blocking-up of large vessels and adhesion of the wall of the stomach to neighbouring parts.

The other history of gastric ulcer is of an acute process; and in fact, a small ulcer rapidly drills its way through the coats of the stomach, or a small portion of the mucous membrane deprived of its blood-supply by stoppage of a minute artery is eroded by the gastric-juice, a large vessel is opened, and profuse hæmorrhage occurs; or the mucous, vascular, muscular, and serous layers are perforated, and the contents of the stomach escape into the peritoneal cavity. In the latter case, the only hope consists in the immediate administration of a large dose of opium. Unfortunately, severe pain in the region of the stomach, and a feeling of faintness, are suggestive of brandy and other stimulants, which, given before Medical advice is sought, seal the patient's fate.

But the emergency we had to contend with was hæmorrhage—the vomiting of blood, escaping probably from some large vein. In cases of this kind the medicines usually given for the arrest of hæmorrhage frequently fail; and you will easily see why. Let us suppose that our gallic or tannic and sulphuric acids or our perchloride of iron have, in the absence of food, reached the bleeding point, and blocked up the aperture in the vessel by a coagulum; let us suppose, also, that these or other

substances, such as salts of lead, have been absorbed into the blood, and have increased its coagulability, at the same time producing an astringent effect on the tissues; we may also have given ergot, or digitalis, or turpentine, with the object of aiding the other remedies by causing the minute arteries to contract and diminish the supply of blood. All goes well till food is taken. Then there will be a certain degree of distension of the stomach, which, however, as the amount of food allowed will be very small, may be disregarded. A more serious matter will be the physiological movements of the organ tending to displace the clot, and finally gastric juice will be poured out, which will tend to dissolve it. The gastric juice, as you know, does not respect even the coats of the stomach itself, but, unless they are protected by the circulation through them of alkaline blood, attacks and destroys them. It is not likely, therefore, to respect the clot any more than if it had been swallowed as food. At the same moment, moreover, that the coagulum is thus endangered, the afflux of blood which attends digestion takes place, and we cannot wonder that hæmorrhage recurs again and again.

What, then, is our resource under these circumstances? I reply by describing the treatment adopted in this case. When I sent her up into the ward I trusted simply to the care in feeding. She was to have nothing but iced milk in very small quantities at short intervals, and a little very weak iced brandy and water. She vomited twelve ounces of blood soon after admission, and eight ounces more during the night. Next day the Resident Medical Officer ordered her acetate of lead and opium in the form of a pill, and later a mixture containing tannic acid and sulphuric acid was substituted; but the stomach rejected both the one and the other, and twenty ounces more of blood were lost. She was completely blanched when she first came under observation, and yet she had vomited an amount of blood since which would have been considered outrageous and dangerous if taken by venesection. Her condition had become something more than critical. She had the languid, distressed look of perpetually impending syncope; and, indeed, an attempt on her part to raise her head would have induced a fatal fainting. The pulse was weak, short, and fluttering, and at one time had the peculiar sharp, excited character which is of such evil omen after great loss of blood.

I now ordered food by the mouth to be absolutely withheld for twenty-four hours. She was allowed only to sip iced water with a little brandy to allay the intolerable thirst experienced under these circumstances, and five minims of laudanum were given every four hours in a teaspoonful of iced water. In order to keep life in her an enema was to be administered every three hours, consisting of beef-tea ʒiij., brandy ʒss., with laudanum ɱv. Next day the enemata had been retained, and no vomiting had occurred, and a teaspoonful of milk was now given every half-hour; enemata continued. On the following day the quantity of milk was increased to two teaspoonfuls, and again next day to a tablespoonful every hour. We had not yet reached a stage at which sufficient food could be given by the mouth, as was shown by the fact that she had once vomited the milk, and now on the 22nd the enemata began to be expelled as soon as injected. Unless this could be obviated, we should have to feed our patient by the mouth at all risks, and our success might be compromised. I had, however, anticipated this complication, and at once ordered the lower bowel to be thoroughly washed out by means of a large injection of soap and water. When nutrient enemata are given frequently for a few days, insoluble matters accumulate on the mucous membrane of the rectum, and probably undergo decomposition. At any rate, irritation is set up and the injections are at once returned. The remedy is, of course, to remove the irritating substance and give the bowel a few hours' rest, when it again tolerates and absorbs the nutrient fluid. This was so in our case, and we were enabled to resume and continue the enemata till the 28th, when the soap and water had to be repeated. The amount of milk taken by the stomach was increased with great caution, as vomiting was sometimes threatened, and actually occurred on the 23rd, 28th, and 30th. The epigastric pain and tenderness disappeared, and there was great craving for food, but I did not venture to yield to the patient's urgent request till July 1, when I allowed her a little custard pudding. On the 3rd she ate a little fish, and on the fifth part of a chop, no vegetables being given till some days later. The recovery was from this time rapid and uninterrupted, the return of strength being aided by the administration of quinine and iron.

The lessons of this case are few and simple, but important; and they consist entirely in the application of physiological knowledge to the emergencies of Medical practice.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

INTERMITTENT GLAUCOMA—IRIDECTOMY IN BOTH EYES—GOOD RESULT.

(Under the care of Mr. GEORGE LAWSON.)

The following are the notes of a very interesting case of intermittent glaucoma which was under the care of Mr. Lawson. The intermissions were very marked and complete, the patient regaining sufficient sight to be able to read No. 1 of Jaeger's test-types (Brilliant type); whilst the recurrences of the glaucomatous attacks were so severe that at the time of the operation the patient was only just able to count fingers with either eye, and had to be led by an attendant to his ward in the Hospital.

William G., aged 60, applied to the Hospital on February 2 of this year. He complained that for the last six months he had suffered from repeated attacks of fogginess of both eyes, which varied in degree from a mere dimness to such a loss of sight that he was unable to read ordinary printing. These attacks would frequently commence in the morning and pass off towards evening, and then his sight would be as good as usual; but sometimes they would last much longer. He also frequently observed rainbows around the candles and street-lamps. They were not, he said, constant, but he only noticed them when his sight was dim. He never suffered from any pain in his eyes.

On the day of his application to the Hospital his sight was worse than it had been before. He could only read Jaeger No. 16. The field of vision of each eye was contracted on the nasal side. The cornea of both eyes was dull and steamy in appearance; the pupils were rather dilated and sluggish; and the tension of the globes was increased to T 2. The patient was advised to come into the Hospital at once and have an iridectomy performed on each eye. To this, however, he positively refused, as he had not anticipated an operation, and could not make up his mind to submit to one. He therefore returned home, promising to come back to the Hospital if he did not shortly improve.

February 6.—The patient showed himself this morning in great glee, as all the glaucomatous symptoms had disappeared without an operation. The sight began to improve soon after he left the Hospital, four days previously, and he could now with either eye read Jaeger 1. The corneæ were quite clear, and there was no tension of the globes. An ophthalmoscopic examination was now made, and in each eye there was seen a deep glaucomatous cup. Under these circumstances Mr. Lawson still urged the patient to submit to iridectomy, as he felt sure that the glaucomatous symptoms would recur, and further that he was liable to an acute attack at any time which might destroy all sight in a few hours. The man promised to consider the matter and to return to the Hospital if the symptoms should recur.

13th.—The patient was admitted on the previous day suffering from an attack of subacute glaucoma. His sight was now so dim that he could only just count fingers, and he was obliged to have a guide to lead him up the stairs of the Hospital. Both corneæ were dull and steamy, and the tension of both eyes was T 2. Mr. Lawson performed iridectomy upwards in both eyes.

From this operation the patient soon recovered, and the sight of both eyes rapidly improved. At the end of a fortnight he could read Jaeger 2 with the left eye, and Jaeger 4 with the right, and there is reason to hope that in a few weeks he will be able again with proper glasses to read Jaeger 1.

Mechanical Restraint of the Insane.—A writer in the *Boston Journal* (January 11), reviewing an eulogium of Conolly by Dr. Lee, speaking of the opinion prevalent on the subject of restraint in the United States, says:—"In spite of former and existing abuses of mechanical restraint, it will be found to be the almost universal opinion of Hospital superintendents that it is often necessary and beneficial. The proportion of cases requiring it is small, no doubt. One per cent. is about the proportion at the Boston Hospital for the Insane. Here the *camisole* alone is used—a long-sleeved apron of drilling, which keeps the arms folded. This is used by some at night only, by some while at large in the wards, and by others who require confinement to bed for a time. To disuse restraint, or substitute seclusion, as is too often done in these cases, would be to overlook abuses, run risks, and lose chances of improvement. No number of attendants, no amount of free air and exercise, could take the place of it."

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Medical Times and Gazette.

SATURDAY, MARCH 30, 1872.

THE LONDON WATER COMPANIES.

These Companies remind us of the persons sentenced to be executed in the reign of Louis XI., who were marched to the gallows between the executioners, Petit André and Trois Échelles—one jocose, one penitential—one charged with fun, the other singing psalms. On the one side we have Dr. Frankland reporting to the Registrar-General that "the daily supply to London is now about 107 millions of gallons. Of this twenty millions is 'good wholesome water from wells and springs in the chalk,' and eighty-seven millions is 'more or less impure water derived from polluted rivers.' The Chelsea and Lambeth Companies draw their supplies from the Thames after it has received the polluted Mole and the sewage of 600,000 people, including the filth of Oxford, Reading, and Windsor. The West Middlesex, Southwark, and Grand Junction Companies draw their water from the Thames above the junction with the Mole, but after it has received the sewage of the three above-mentioned towns, as well as of smaller places." There is no doubt that Dr. Frankland's tone is calculated to alarm the public mind, and to present the totals of impurity in figures of the most appalling magnitude. In Major Bolton (the Government Inspector of Filtration), Dr. A. S. Taylor, and Dr. Whitmore, our drinking water has much much more lenient judges. Dr. A. S. Taylor even rebukes Dr. Whitmore for his use of the word "impurity":—"I object to the use of the word 'impurity' in Dr. Whitmore's analysis, because it has a tendency to mislead the public. He obviously employs this term to represent the solid or mineral constituents of the water—*i.e.*, he applies it to substances such as carbonate of lime, common salt, etc., which are found more or less in all terrestrial waters, which are natural to these waters, and quite inseparable from them when they have once come in contact with the earth." "Living organisms" and "previous sewage contamination" have no terrors in Dr. Taylor's eye—so far, at least, as Dr. Frankland's evidence of the latter is concerned. Nevertheless, a little severity of judgment is not misplaced when applied to the qualities of so all-important a thing as our water-supply.

CRIMINAL RESPONSIBILITY IN CASES OF DELIRIUM TREMENS.

With reference to the case of William Frederick Hovey, mentioned in a recent number as having been tried at the late Lincoln Assizes for the murder of his wife—the question involved in the inquiry being how far an attack of delirium tremens, from which the prisoner had been suffering, relieved him from the responsibility of his act—the authorities on this subject, as collected in Archbold's "Criminal Pleading" and Roscoe's "Evidence in Criminal Cases," are as follows, and are thus epitomised:—"The vice of drunkenness, which produces a perfect, though temporary, frenzy or insanity, usually denominated *dementia affectata*, or acquired madness, will not excuse the commission of any crime; and an offender under the influence of intoxication can derive no privilege from a madness voluntarily contracted, but is answerable to the law equally as if he had been in the full possession of his faculties at the time."—(1 Hale, 32; Co. Litt., 247; 1 Hawk., c. 1, s. 6.) "But if the primary cause of the frenzy be involuntary, or it have become habitual and confirmed, this species of insanity will excuse the offender equally as the former description of this malady. Thus, for instance, if a man, through the unskilfulness of his Physician or the contrivance of his enemies, take that which produces a temporary frenzy, he will not, whilst under the influence of the frenzy, be accountable for his actions. So neither will he be liable to be punished for any crime perpetrated under the influence of insanity which is habitual and fixed, though caused by frequent intoxication, and originally contracted by his own act."—(1 Hale, 32.) But to come nearer to our own times, Chief Justice Jervis, in 1852, in trying a woman for attempting to commit suicide, said to the jury—"If the prisoner was so drunk as not to know what she was about, how can you say she *intended* to destroy herself?"—(Regina *v.* Moore, 3 Carrington and Kirwan's Rep., p. 319.) So, in the charge of wounding with *intent*, etc., the drunkenness of the accused may negative the *intent*. In 3 Paris and Fonblanque's "Medical Jurisprudence," 140, a case of Rex *v.* Dey is reported, from which it appears that the prisoner, after a paroxysm of drunkenness, rose in the middle of the night and cut the throats of his father and mother, ravished the servant-maid in her sleep, and afterwards murdered her. It is superfluous to say that the prisoner was executed. He was doubtless suffering from a frenzy produced by drink, but not of a permanent character. There was no provocation to palliate his atrocity, and the paroxysm was brought on by his own voluntary act.

In Hovey's case in all probability the evidence did not go the length of showing that the unsoundness of mind, under which he might have been suffering when under an attack of delirium tremens, had become habitual and fixed, or that he was labouring under it when he shot his wife, so as to acquit him of premeditation, in which latter case, though the crime might thereby be reduced to manslaughter, he would not be held unaccountable for his actions unless, in addition, the long practice of intoxication had resulted in confirmed insanity. In no case would the mere fact of the accused suffering at the time from an attack of delirium tremens, voluntarily contracted, render him wholly unaccountable unless the insanity were also confirmed and permanent.

We ventured in our remarks on the case to "presume that a patient, suffering at the time from an undoubted attack of delirium tremens, although the result of drink, would not be held accountable for his acts." But it seems the law does not go this length. The extent to which the law does go is thus very clearly laid down by Mr. Baron Parke, in Rex *v.* Thomas (A.D. 1837):—"If a man makes himself voluntarily drunk, that is no excuse for any crime he may commit whilst he is so—he must take the consequence of his own voluntary act, or most crimes would otherwise be unpunished. But drunkenness may be taken into consideration in cases where the law deems sufficient provocation has been given; because the question is, in such cases, whether the fatal act is to be attributed to the passion of anger excited by the previous provocation—and that passion is more easily excitable in a person when in a state of intoxication than when he is sober; but if there is really a previous deter-

mination to resent a slight affront in a barbarous manner, the state of drunkenness in which the prisoner was ought not to be regarded, for it would furnish no excuse."—(7 Carrington and Payne's Rep., p. 820.)

Mr. Justice Quain, in disallowing the plea of Hovey, must therefore have meant that the law could only recognise permanent or confirmed unsoundness of mind from drink as a bar to responsibility; and that the prisoner, being actuated by jealousy, and not suffering from permanent mania, but from what the law calls *dementia affectata*, must abide the consequence of his own voluntary act, in thus exciting the passion of resentment without sufficient provocation to reduce the crime to manslaughter.

HARTNACK'S MICROSCOPES.

The following observations may, we hope, tend to the benefit of the Medical world in more ways than one. Our object is, of course, to point out to our brethren the mode in which their money may be best spent; but if thereby British makers are stimulated to improvements which will also diminish price we shall be doubly repaid.

So many questions have been asked with regard to Hartnack's microscopes, that we propose once for all to tell what is to be told about them, and so allow people to judge for themselves. The two French makers whose names are best known in this country are Oberhaeuser and Nachet. The last microscopes we have seen made by Nachet did not quite come up to his ancient reputation; whereas those of Oberhaeuser, which, we think, were first introduced into British schools by Dr. Hughes Bennett, of Edinburgh, continued to become more and more popular until those of Hartnack, who is Oberhaeuser's successor, began to be known. What mainly commended these microscopes was their simplicity, their portability, and the excellence of their lenses. They were simple, and hence not likely to get out of order; and though it was somewhat more difficult to learn their manipulation, this once learned was not readily forgotten, and subsequently preferred.

These microscopes have no coarse adjustment—that must be managed by sliding the microscope-tube in the tube of the stand. A little care must be exercised as to keeping these surfaces neither too tight nor too loose; so that the microscope may move easily, but not too easily. They are readily portable, the box containing them being small in size. Moreover, they can be put away in it with lenses ready adjusted, so that the microscope has only to be removed from its box and placed in a proper light to be ready for use. Those acquainted with the trouble of getting some English microscopes ready would appreciate this. The modern Hartnack's microscopes are so short that no joint is required, though that is added to the better class of microscopes. The stage is thus flat, which is the position best suited for examining specimens such as fluid, which are apt to run. The slide need not be fixed in any way, and is free to be moved by the fingers in any direction. This seems a disadvantage at first, but experience shows that it is not. After the fingers are fairly educated, movement is so free, and may be made so rapid, as to excel all varieties of movable stage. This applies to ordinary powers; in working with very high powers a mechanical stage is an advantage.

The microscope having been placed in a suitable light, the heel of the body is to be seized with one hand, and, by a screwing motion, the objective brought to within a quarter of an inch or so (if for a 300-power) of the stage, a good light secured, and the object adjusted as nearly as possible by the naked eye; after which, by screwing round the body, the focus may be roughly caught, the exact focus being made out by the screw fine-adjustment. Not unfrequently it saves time to use a low power as a guide, and afterwards to screw on the higher power; but these are matters of detail into which it is not our province to enter.

In these microscopes, then, there is no coarse adjustment, and no stage machinery beyond a pair of clamps to hold the slide *in situ*. But having learned how to work with them, there is no difficulty in working an English model of the ordinary powers. Such powers as Dr. Beale habitually uses are, however, a totally different thing; not many men can either work them or even make preparations fit for them.

There are three of Hartnack's models which we can confidently recommend from experience of their excellence; these are models 1, 3, and 8. No. 1 is the microscope we have had so often to commend for cheapness; it is very small, but very convenient. No. 3 has a larger stage and a more solid rest; it is bigger in every way. No. 8 is perhaps the best microscope Hartnack makes, though he himself places another not here mentioned before it. These numbers refer mainly to the framework of the microscope, for the lenses may be adapted to either. Hartnack's objectives are arranged, not like ours, according to focal length, such as half- and quarter-inches, but into systems 1, 2, 3, 4, etc.; so that a purchaser having fixed on his model may order what lenses he likes. Model No. 2 is very good, and is rather cheaper than No. 3. For our own part we should select either No. 1 or No. 3 for ordinary use—No. 8 if we could afford the money, for that is the next point.

Model No. 1, specially intended for clinical use, and having the objective combination No 7 and ocular No. 3, gives a magnifying power of 300 diameters; this, with case and appurtenances complete, is to be obtained for the amazingly small sum of 65 fr.—*i.e.*, £2 14s. 2d.—and we repeat that no one need care to work with a better instrument up to that power, which is about equivalent to our English quarter. To enable this microscope to be employed with objects demanding a lower power, it is advisable to add to the contents of the case another objective—viz., combination No. 4—which, with the ocular contained in it (No. 3), gives a magnifying power of about 65. With this addition, we can commend the instrument as a capital one for the Practitioner. The extra cost is 20 fr., bringing the whole up to a little over £3 10s.

Model No. 2, with powers from 50 to 600, costs 165 fr., or £6 17s. 6d.—surely marvellously cheap at the price. Model No. 3 costs 190 fr. To those, however, who could afford it, we should say—Buy No. 8, if you want a power over 600. The great feature of model 8 is the combination No. 9, which is adapted for immersion, and which, with ocular No. 4, gives a magnifying power of 1000 diameters. This model also possesses an ocular micrometer, and its price, according as it is furnished with a joint or no, is a little over or a little under £16.

For the purposes of the student or Practitioner we would recommend model No. 1, with ocular No. 3 and combinations Nos. 4 and 7; that costs £3 10s. 10d. For purposes of research with higher powers (the former are the best working powers) model No. 2, No. 3, or No. 8 may be selected, according to the capacity of the individual's pocket.

Hartnack has no London agent, so that it is necessary to write straight to his address, 21, Place Dauphine, Paris; and we may add that it will facilitate matters if, in accordance with Continental business fashions, a cheque, payable on a Paris house, be forwarded at the same time as the order, otherwise it will not be responded to.

THE WEEK.

TOPICS OF THE DAY.

At an extraordinary meeting of the Fellows of the Royal College of Physicians, on Monday last, Dr. George Burrows, F.R.S., was again elected President of the College. It was proposed by Dr. Farre that the reports of the proceedings of the Comitia should for the future be sent to the Medical journals.

We have great pleasure in calling our readers' attention to the fact that the International Ophthalmological Congress

will be held in London during the first three days of next August. The Council of the Royal College of Physicians have placed the rooms of the College at the disposal of the Ophthalmologists for the purposes of their meeting. Mr. Critchett is the Chairman of the London Committee, and Professor Soelberg Wells the Secretary. Any inquiries for information as to the approaching Congress should be addressed to the latter gentleman at his residence, 16, Savile-row, W.

The appearance of the report of the Briton Life Assurance and of the statements lately circulated by the Clerical Medical and General Life Assurance Society, both offices being amongst those in which many members of our Profession are especially interested, calls our attention to the improved condition and prospects of life insurance generally in this country. The panic has now disappeared, confidence has been restored, and the general position of insurance companies has been bettered, inasmuch as in many instances those who, in consequence of the late panic, have abstained from making their annual payments, have left their accumulated interests for the benefit of others who have displayed greater confidence. To members of the Medical Profession life insurance offers the easiest and surest way of providing for a family and giving the fearlessness for the future which is one of the greatest helps to success. Few men know better than those who are engaged in watching the interests and progress of the Profession as Medical journalists the difficulty which every man who relies upon his Profession alone must find in leaving the most modest competence for wife and children. But the easiest way to accomplish it is to insure, and to insure when young.

We have received a letter from Lord Abinger on the subject of the recent occurrences at the Royal Orthopædic Hospital, which we append:—

"THE ROYAL ORTHOPÆDIC HOSPITAL.

"*To the Editor of the Medical Times and Gazette.*

"SIR,—Though extremely unwilling to appear in print, I so fully concur in the justice of your remarks on the Royal Orthopædic Hospital as they appeared in your number of the 16th inst., that I cannot refrain from asking you to publish the following observations. I and my family before me have been connected with the Royal Orthopædic Hospital from its earliest foundation, and we have always taken a deep and abiding interest in its welfare.

"Into the personal differences which have arisen between the Committee of Management and their two Senior Surgeons, Messrs. Tamplin and Adams, as they have no reference to their Professional ability, I do not at this moment wish to enter.

"The broad view of the case is this—18,000 unhappy cripples have passed through the Hospital since its foundation. They have been cured by our Surgeons and not by the Committee, and it is by their eminent Professional skill and ability the Hospital now holds its position and the support which is accorded to it by the public.

"The two Senior Surgeons having placed their Professional honour in my hands, I am of opinion that it will be impossible for them to withdraw their resignations until the paragraphs reflecting on their conduct have been expunged from the annual report which was adopted at the Annual Court. In order to effect this object, I, in common with many other influential governors and earnest supporters of the institution, have summoned a Special Court, which will be held at the Royal Orthopædic Hospital on Monday, April 8, at 3 p.m. To this Special Court I earnestly invite the attendance of all governors, and they will then be able to judge for themselves as to the merits of the case from the facts which will be laid before the meeting.

"Since the holding of the Annual Court I have examined the Hospital books, and I find that on March 8 eight annual subscribers of £1 1s. were introduced, and that on March 12 (the day before the meeting) no less than twenty-two annual subscribers of £1 1s. were introduced—all these members being entitled to vote. I have it under the Secretary's own handwriting that the names of thirty of these members were given to him by one of the Assistant-Surgeons, who gave him his own cheque for £31 10s., and took thirty separate receipts for the same. I venture to think that the Assistant-Surgeon in question could hardly have failed to be aware that the adoption of the report would necessitate the resignation of his two superior officers.

"At the same time there was a resolution on the notice paper of business to be transacted at the meeting, to the effect that after a certain number of years' service all Assistant-Surgeons should have the rank of full Surgeons. The adoption of the report and the passing of this resolution at once converted the Assistant-Surgeon in question into Senior Surgeon of the Hospital.

"I make no comment on this proceeding of the Assistant-Surgeon; but I should be glad to hear through the columns of your valuable journal whether it meets with the approval of the Medical Profession.

"The report of the Committee was carried by fifty votes against thirty-three. Deducting the thirty-two votes and those of the Committee and their more immediate friends, how many can remain to have passed the vote of censure on our Surgeons? I am, &c., ABINGER.

"Cromwell-road, South Kensington, March 25."

It will be seen that Lord Abinger has called a special meeting of the Governors of the Hospital, and until that has taken place it would be perhaps premature to comment fully on the statements which his letter contains. We can only hope that Lord Abinger has been misinformed as to facts when he states that one of the Assistant-Surgeons of the Hospital has himself been instrumental in introducing persons to vote, paying their subscriptions by his own cheque, who came and outvoted the supporters of his colleagues. Such a policy, whether the report be correct or not, would deserve the censure of the entire Profession. Surely the Council of the Royal College of Surgeons should take cognisance of such a matter, supposing there be no mistake.

Several paragraphs have of late appeared in the papers under the heading "Drunk or Dying." They refer to different occurrences, in all of which unfortunate persons have been taken to public Medical institutions, have been believed by the Medical men in attendance to be drunk, and it has afterwards proved that they were suffering from the fatal effects of accident or disease. Now, we do not criticise the opinion given by the Surgeons. We know the difficulty in many of the cases of arriving at a correct diagnosis, and we have not the full details before us; but these occurrences have a moral, and it is this—that whenever a person insensible is brought to a public Hospital, unless it is clearly proved that he is intoxicated, he should have the benefit of the doubt, and be put to bed. Twelve hours would clear the matter up, and these terrible cases would not occur.

The trial of Hannah Steele for the alleged murder of Mr. Harris, the Senior Surgeon of the Manchester Workhouse, took place at Manchester on March 21. Mr. Harris died suddenly with all the symptoms of poisoning by atropine. Circumstances threw suspicion on the prisoner, a nurse in the lunatic ward, who was supposed to have had a grudge against Mr. Harris for reporting her to the authorities for some neglect of duty. However, the jury thought there was no reliable evidence against her, and she was acquitted.

ROYAL MEDICAL SOCIETY, EDINBURGH, ON CONJOINT EXAMINING BOARDS.

PROFESSOR GAIRDNER, of Glasgow, at a meeting of this Society, held last week, delivered an address on "Medical Examinations and Conjoint Boards." He said that "at various recent meetings of the General Medical Council it appeared that the Council were tending in a certain direction as regarded Medical examinations. It appeared perfectly plain to those who were in the secret that the Medical Council were acting under a sense, as it were, of constraint—that some individual members of it and some influences outside were, in fact, saying to the Council, if they did not do so, application would have to be made to Government for the institution of a system of Medical examinations wholly outside the control of the Profession itself. Although he appeared before the meeting as an oppo-

nent of this particular scheme of conjoint boards, he did not see any practical or theoretical objection to different examining boards acting in conjunction with each other, and giving common lessons. In fact, so far as the conjunction of examining boards might be effected in such a way as not to sap the feeling of independence belonging to each, and to accumulate examinations and toil and anxiety connected with examinations either upon examiners or students unnecessarily, he was entirely in favour of the conjoining of examining boards. He had no objection to conjoint examinations by the Colleges of Surgeons and Physicians, nor could he see any objection to conjoint examinations between the University and the Corporations of Physicians and Surgeons. As a teacher and Professor he had no jealousy whatever of the admission of other influences beyond those of teachers into examinations. He had no hope that any system could be established which would absolutely prevent incompetent persons getting into the Profession, but this new legislation was in danger of destroying incentives to improvement and all attempts to raise the character of Practitioners above that dead level indicated by the minimum. Dr. Gairdner concluded by adverting to the deteriorating effects which examinations by the conjoint boards would have upon the quality of teaching. An animated discussion followed, in which Dr. Martin (the President), Mr. Lewis Shapter, Professor Sanders, Dr. Gamgee, Professor Blackie, and others, took part. Ultimately the following resolution was unanimously adopted:—"That this meeting is of opinion—1st, that there is no sufficient reason or demand for 'uniformity of Medical qualification,' as attainable by one national board for each division of the kingdom; and, 2nd, that improvements in Medical education and examinations will be best carried into effect by the individual or voluntary conjoint action of the licensing boards."

HEALTH OF PARIS.

Our Paris correspondent tells us that the mortuary report shows a slight increase in the number of deaths during the week ending March 22, which amounts to 844. Of this number there are 14 cases of measles, 19 of typhoid fever, 39 of bronchitis, 58 of pneumonia, 10 of sorethroat, 16 of croup, and 165 of phthisis, by which it will be seen that affections of the respiratory organs are the most prevalent; and this is not to be wondered at, as the sudden transitions from cold to heat, and *vice versâ*, have been very great. The thermometer, after having risen to 60° Fahr. within-doors, suddenly came down nearly 15° about the middle of last week, when the thermometer out-of-doors marked freezing-point. On March 26 the mercury fluctuated between 45° and 50°, and there was a slight fall of snow in the afternoon. No comparison could be made with the corresponding week of last year, as there was no report published; but that for the preceding year gives a mortality of 1101. This, however, cannot be a proper criterion, as the present population of Paris, which must have been considerably reduced in consequence of the war and the subsequent disasters of last year, is not given in the weekly report just issued.

DR. HILL *v.* ST. PANCRAS.

After a somewhat valiant show of resistance, Dr. Hill has absolutely, after all, signed the agreement with the Guardians which he contended was illegal and might subject him to penalties under the Medical Witnesses Act. It appears that last Thursday Dr. Hill addressed a letter to the Guardians, in which he regretted the difference which had occurred respecting his appointment, and offering to sign the agreement. On this letter being read to the meeting, the notice to rescind Dr. Hill's appointment was by consent withdrawn. Dr. Hill was then sent for, and signed the agreement, after it had been read over to him in the presence of the Guardians. It remains to be seen whether this illegal proceeding will or will not be interfered with by the Local Board and the County Coroner.

CHELMSFORD DISPENSARY AND INFIRMARY.

It is stated that Dr. Nicholls and Mr. Carter, the Medical officers of the Dispensary and Infirmary, have been called upon by the Committee of that institution to resign. The circumstances which have led to this step are stated to be a painful want of harmony between these two gentlemen, having its climax in an angry correspondence. It appears that Mr. Carter has been recently appointed to the institution, and since then Dr. Nicholls had performed two amputations at the Infirmary without consulting with his colleague. His excuse is that Mr. Carter's appointment had not been officially made known to him. Hence a correspondence took place of an unpleasant character. The matter being brought before the Committee, they called upon both gentlemen to resign. Mr. Carter has acted on the hint. Dr. Nicholls has declined to resign.

SMALL-POX JOTTINGS.

Small-pox has been rapidly spreading in Crewe.——One death was reported in Mile-end Old Town last week from the disease. ——Eight deaths occurred during the past fortnight from small-pox in the Hackney district.——In Aberdeen the past week's return shows—Total number of cases admitted to Hospital since opening, 137; new cases admitted on the 22nd, 2; number of patients in Hospital, 32; total discharged recovered, 84; total dead, 21.——In Halifax during the past fortnight two deaths occurred from small-pox, and five new cases were reported.——The new Small-pox Hospital at Stoney Royd is fast approaching completion, and will be ready for patients in a very short time.——Small-pox has broken out in Brighouse; already three deaths have occurred. Large numbers of persons are being revaccinated.——Upwards of 500 deaths from the disease have now taken place in Norwich; the disease is now abating, the weekly return showing only ten deaths, while the mortality at one time was thirty-seven in seven days.——Small-pox has disappeared at Newmarket and Cheveley.——The deaths from the disease in the eight principal towns of Scotland declined from 461 in January to 314 in February.——A householder at Brixton has been fined £3 at the Lambeth Police-court for having sent to his laundress a quantity of linen which had been exposed to infection from small-pox without having previously had the clothes disinfected.——Dr. Aldis, St. George's, Hanover-square, reported last week two cases of small-pox, both of which were sent to the Hospital.——Four deaths from small-pox had been registered last week in the Poplar Union, and twelve new cases brought under notice. In the same period seventy-seven persons were vaccinated at the public stations. There were five small-pox patients under treatment in North-street Infirmary.

MEDICAL SPIRITUALISM IN MELBOURNE.

Melbourne at the present time, according to the *Australian Medical Gazette*, is in a state of excitement similar to that which obtained in London during the O'Key *séances*. It appears that some of the principal Medical Practitioners in Melbourne have given in their adhesion to the spiritualist cause, and are in the habit of diagnosing and treating disease with the aid of a medium. The actors in this absurdity are not mentioned by name. One, however, is said to be a "Hospital Physician" connected with the Melbourne University, whose spiritual medium is an ex-grocer, now carrying on the business of Medical "medium" and biologist. This person professes to be able, by the aid of a lock of hair, piece of garter, or other adjunct of a sick person, without seeing the latter, to prescribe successfully for the most obscure and dangerous disease. A second Melbourne University Physician, attached to a Hospital, prefers a female medium, who is young and good-looking. The *Gazette* states that the "humbug" has many followers amongst all classes in the Profession, and justly denounces a system at once degrading, demoralising, and disgraceful, calculated to injure the Profession and bring it into ridicule.

MASTERS AND SERVANTS (WAGES) BILL AND DOCTORS' FEES.

THERE has been a meeting of the Scottish Western Medical Association in Glasgow to discuss the bearing of the Home Secretary's Bill relating to servants' wages. This Bill is intended to meet the terrible evils of the truck system, but it seems likely to interfere with the remuneration of Medical attendants in certain districts. We sincerely trust that no Bill will be passed which will interfere with the scanty incomes of Medical men; but, as we should also be glad to see the truck system abolished, we hope that some measure will be found for attaining the one end without compromising the other.

MEDICAL AFFAIRS IN DUBLIN.

OUR Dublin correspondent writes:—

"There is but little stir in the Medical world here at present, except the very injudicious newspaper excitement about the 'Irish Surgical Baronetcy.' If the list of 'eligible' names continues to be added to as rapidly as it has been of late, the 'Medical Directory' will soon be exhausted.

"The Conjoint Examining Board has, as you are aware, fallen through for the present.

"A very marked increase in small-pox has taken place. In the Cork-street Hospital the wards set apart for that disease are quite full, and the type is a very severe one. The health of Dublin in general is deplorably bad. Last week eleven deaths from fever were registered, in addition to fifty-four from small-pox. Of the latter, however, sixteen were of old date. The present severe weather will, I suppose, still further augment the mortality."

FROM ABROAD.—PRIZES AND PRIZE QUESTIONS AT THE ACADÉMIE DE MÉDECINE—THE LYONS MEDICAL CONGRESS.

THE anniversary at the Académie de Médecine has been held this year without any public ceremonial, M. Béclard, the Secretary, merely announcing the prizes that had been decreed and the prize subjects for the ensuing years:—1. The Academy Prize for 1870 (Intracranial Traumatic Effusions) has been awarded to M. Martial Robert, a military Surgeon. 2. For the Civrieux Prize (Diathetic Neuroses) no prize was adjudged, but the sum of 500 fr. has been awarded as an "encouragement" to M. Berthier, of the Bicêtre, and one of 300 fr. to M. Aribaud. 3. In like manner the Godard Prize (for the best work on Internal Pathology) has been divided between M. Carrière for his work on "Hydatid Alveolar Tumour" and M. Bertin for his "On Emboli." 4. The Orfila Prize (Digitalis) of 6000 fr. has been awarded to M. Nativelle for his essay on "Crystallised Digitaline" (*vide Medical Times and Gazette*, February 3, page 138), and a "recompense" of 1400 fr. has been given to MM. A. E. and S. G. Homolle. 5. The Itard Prize of 2000 fr. (for the best work on Practical Medicine and Therapeutics that had been published at least two years) was given to M. Lancereaux, for his "Treatise on Syphilis;" a recompense of 700 fr. being also adjudged to M. Guipon for his work on "Malignant Pustule." 6. The Civrieux Prize for 1871 (Bromide of Potassium in Nervous Diseases) was adjudged to M. Voisin, of the Salpétrière. 7. The Barbier Prize for 1871, of 1500 fr., was given to M. Ehrmann, of Mulhouse, for his "Recherches sur la Staphyloraphie chez les Enfants." 8. The Capuron Prize for 1871, for the best memoir on Occipito-Posterior Positions, was not adjudged; but an encouragement of 1000 fr. was given to M. Sentex. 9. The Godard Prize for 1871, for the best work on External Pathology, was decreed to M. Berchon, a Naval Surgeon, for his "Histoire Médicale du Tatouage," an "honorable mention" being awarded to M. Rouge, of Lausanne, for his work on "Uranoplastie et les Divisions Congénitales du Palais." 10. The Amussat Prize for 1871, for the best work on Surgical Therapeutics, was given to M. Berenger-Féraud for his "Traité des Fractures non Consolidées ou Pseudarthroses." For the other prizes offered by the Academy there were no competitors, which is not to be wondered at, considering the troublous times they were offered in.

The following are the subjects of the prizes proposed for 1872 and 1873:—1. The Academy Prize of 1000 fr.—for 1872, "Malignant Jaundice" (*Ictère grave*); for 1873, "The Resection of Bones in their Continuity after Gunshot Wounds" (excluding articular resections). 2. Portal Prize of 2000 fr.—for 1872, for the "Best Memoir on a Question of Pathological Anatomy;" for 1873 (1000 fr.), "The Condition of the Bones and especially of the Vertebræ in Cancer of the Viscera." 3. The Civrieux Prize of 900 fr.—for 1872, "The Different Forms of Alcoholic Delirium and their Treatment;" for 1873, "The Transitory Mental Alienations which occur during the Convalescence of Acute Diseases." 4. The Barbier Prize of 2000 fr. for 1872, and 3000 fr. for 1873. This is to be given for the discovery of the means of cure of diseases recognised as usually incurable—as hydrophobia, cancer, epilepsy, scrofula, typhus, cholera, etc. "Encouragements" may be awarded to those who, without having attained the end in view, have made the nearest approach to it. 5. The Capuron Prize of 3000 fr.—for 1872, "The Precursory Phenomena and Concomitants of the Lacteal Secretion;" for 1873, for the best unpublished memoir on any subject of Obstetrical Science. 6. The Godard Prize of 1000 fr. will be awarded in 1872 for the best work on Internal Pathology, and in 1873 for the best work on External Pathology. 7. The Orfila Prize of 2000 fr., for 1872, will be given to the author of the best work relating to any of the branches of Legal Medicine, except toxicology. 8. The Lefevre Prize of 2000 fr. for 1872, "De la Mélancholie." 9. The Rufz de Lavison Prize for 1872—"Establish by means of precise and sufficiently numerous facts, observed in men and animals which pass from one climate to another, the modifications and alterations of functions and the organic lesions which may be attributed to acclimatisation." 10. The St. Lager Prize for 1872 is thus indicated by its founder:—"I offer to the Academy a sum of 1500 fr., in order to found a prize to recompense an experimenter who has induced a tumour of the thyroid as a consequence of the administration to animals of substances which have been extracted from the waters of localities where goître prevails as an endemic; the prize not to be awarded until the experiments have been successfully repeated by a committee of the Academy." 11. The Amussat Prize for 1873 of 1000 fr. "This prize will be decreed to the author of the work or of researches, simultaneously based on anatomy and experimentation, which shall have realised or prepared the most important progress in Surgical Therapeutics." 12. The Itard Prize for 1873 of 2700 fr. "This triennial prize is to be accorded to the author of the best book or memoir on Practical Medicine or Applied Therapeutics. In order that such works may have stood the test of time, it is obligatory that they shall have been published for at least two years." 13. The Marquis d'Ourche's Prize for 1873. The following are the conditions imposed by the testator:—"I desire to found two prizes—(1) A prize of 20,000 fr. for the discovery of a simple and vulgar means of recognising in a certain and indubitable manner the signs of real death. An express condition of this prize is that such means may be put into force by even poor and ignorant peasants. (2) A prize of 5000 fr. for the discovery of the certain means of recognising real death by the agency of electricity, galvanism, or any other procedure requiring either the intervention of a Professional man or the application of knowledge and the employment of instruments or substances beyond the knowledge of ordinary persons. If after five years from the date of the acceptance of this offer, either or neither of these prizes have been gained, the sums allotted to this foundation shall revert to the estate." All the essays, written in French or Latin, must be sent to the Academy by August 1 of the respective years.

The Committee of the Fourth Session of the French Medical Congress, to be held at Lyons during the International Exposition, has just issued its regulations and programme, signed by its President, M. Diday.

According to these the Congress will be opened on the 18th of September, and will hold its session during nine days (Sundays excepted). All Professional men who do not belong to the Lyons Medical Body, on signifying their adhesion to the Secrétaire-Général, M. le Dr. Dron, 5, Rue Pizay, Lyons, will be acknowledged as members without payment. Those of them who may wish to address communications to the Congress, either upon the subjects specified in the programme or on others not embraced in it, are requested to send them to M. Dron at latest by September 10. The Committee will decide upon the propriety of bringing them before the Congress. They should be as short as possible, as the time allowed for reading them will be limited, and all memoirs read will remain the property of the Congress, and will be published by the Committee.

The following are the eight questions which, according to the programme of the Committee, are to be brought before the Congress:—1. *Epidemic Small-pox:* It has appeared to the Committee that, in face of the vast epidemic which has spread over so large a part of Europe, it is "important to centralise the observations that have been made on the different regions visited by this scourge." It especially draws attention to certain points relating to vaccination, such as the comparative value of the different varieties of this, animal vaccination, and the measures of sanitary police calculated to favour and assure the practice of vaccination. 2. *Gunshot Wounds:* The Committee calls attention to the following points:—(1) The primary and consecutive effects of the new projectiles on the tissues, discussing also the question of explosive balls; (2) the respective indications for expectation, amputation, and excision in fractures of the diaphyses and joints; (3) the modes of dressing wounds most suitable for the prevention of complications, and allowing the transport of the wounded to great distances. 3. *Ambulances during War*, the chief points to be considered being the comparative examination of their organisation in different countries, the relations of the *chef d'ambulance* with the military officer in command, and the relations of the regular military Medical service with volunteer ambulances. 4. *Cattle Plague:* Under this head it will be of importance to consider the amount of loss from the last epizootic, which still prevails in some part of France; its comparison with other virulent epidemics or epizootics; its various modes of propagation; the best means of arresting its progress and preventing its return; and the nature of the legislation adopted in respect to it in various countries. 5. *The Causes of the Depopulation in France, and the means of Remedying it:* (1) The causes of the diminishing number of births—such as paucity or want of fecundity of marriages, large military levies, luxury, debauchery, alcoholism, etc.—will form one chief point for consideration; (2) the other will be the causes of the excessive mortality of young children. 6. *Treatment of Syphilis:* Here the whole question of the mercurial and non-mercurial treatment will have to be considered, as also the agency of local treatment. Other points will be—the efficacy and adaptability of the subcutaneous mercurial treatment; the comparative efficacy of mercury and iodine; and the utility of sulphurous mineral waters in certain forms of syphilis. 7. *The Reorganisation of the Teaching of Medicine and Pharmacy in France.* 8. *The Means calculated to Ameliorate the Condition of the Medical Practitioner*, so as to bring him into harmony with the importance of the part which he has to fulfil in society.

M. De Ranse, criticising the above programme in the *Gazette Médicale*, expresses his opinion that nine days is too long a period for the Congress to last, and that it should not extend beyond the week. He also believes that the Committee has brought forward too many topics for discussion, as it is far preferable to have a few important subjects well examined than a great variety superficially dealt with. Thus, he suggests the suppression of Nos. 1, 4, 5, and 6. The subject of variola has been recently and universally discussed. The cattle plague is an economic question, possessing little direct interest for the Medical Profession. The causes of depopulation, too, is a vast social question, which would alone occupy all the meetings the Congress contemplates. The discussion of the treatment of syphilis is much more suited for Medical societies and journals than for a Congress. On the other hand, Nos. 2, 3, 7, and 8 are subjects of great importance and actual interest.

PARLIAMENTARY.—AMENDMENT OF THE MEDICAL ACT—CONTAGIOUS DISEASES BILL—PUBLIC HEALTH BILL.

In the House of Commons, on Thursday, March 21,

Dr. Lush asked the Vice-President of the Council whether it was his intention during the present Session to introduce a Bill for the amendment of the Medical Act, 1858.

Mr. W. E. Forster: Lord Ripon and I have conferred on the question of my hon. friend. We are informed that most of the Examining Medical Bodies in England have already combined by voluntary action. We are therefore of opinion that it is unadvisable to bring in this session a Bill to amend the Medical Act of 1858. Next year we shall know how this combination in England is working, and to what extent similar action has been taken in Ireland and Scotland.

On Monday,

Mr. W. Fowler asked the Home Secretary whether he could name a day after Easter on which he would move the second reading of the Bill for the Prevention of Contagious Diseases.

Mr. Bruce: I regret to state that I cannot with any certainty fix a day for the second reading of the Bill.

Mr. Gladstone stated that the second reading of the Public Health Bill should be placed before the Parks Bill on Thursday, April 4.

THE NEW EDITION OF VIRCHOW'S "CELLULAR PATHOLOGY."(a)

Fourteen years have elapsed since the "Cellular Pathology" of Professor Virchow made its appearance, raising stormy discussions throughout Germany and strong opposition everywhere, and nine years lay between the previous edition and this last one. This long interval is chiefly due to the author's political life, upon which he spent all his energy during that period, and which furnished to his malicious detractors and enemies a most welcome pretext for hideous comments. It will be fair, therefore, to remark that his endeavours in politics rank equally high with his various merits regarding science. After the traditional fashion of the noble Prussian aristocracy, Bismarck, at the beginning of his glorious career, was very much given to violating and overlooking of constitutional rights, and only by the party of which Professor Virchow for some years was one of the chief leaders was the violent Minister brought about to take a different course. Thus Professor Virchow has his good share in the historical events of the last year. Lately he has returned to his work, and he has done so with his wonted vigour, the summary of which is laid down in the present volume.

Professor Virchow firmly holds up his system in all its essential parts. "The new discoveries," he says (p. 391) "do nought but confirm my theory—*omnis cellula e cellula*" (p. 24). All tissues consisting of simple cells—that is, such as are not distinguished by some peculiar quality, as is the case with muscles and nerves, with an intercellular substance interposed between them—are united into one large species: the connective tissue. Its cells, if they enter into communication with each other, which they very often do by the way of threadlike elongations they send forth, then form the corpuscles of the connective tissue. These anastomoses form a system of channels for the transmission of the nourishing juice to those cells which are not within the immediate reach of the capillary bloodvessels, thus representing a substitute for the vasa serosa antiquorum, which do not exist. That is the way the cornea, the cartilage, bones, and all the parts are provided for, where the bloodvessels are relatively scarce (p. 48, 119 *et seq.*). The connective-tissue corpuscles act not only a most important part in the nutrition of the part to which they belong; they partake, moreover, to a great extent in the process of inflam-

(a) "Cellular Pathology." By Professor R. Virchow. Fourth edition, revised and enlarged. Berlin, 1871. Pp. 574. Hirschwald.

mation. To a certain limit they produce the normal, as well as the anomalous, cellular products in their region. "It will be difficult to decide which part of an inflammatory product is due to white blood-corpuscles emigrated from the capillaries and to their division, as observed by Stricker, and which to the activity of the irritated cells. Cells, however, are not originated by the free fibrine, but again by other cells."—P. 479. "It has been said that I have built my doctrine of the origin of the new formations upon the activity of the connective tissue. I never had such an idea. I have always acknowledged the formative power of the epithelia."—P. 392. His views as to the origin of dyserasies are still the same: the blood is constantly supplied with the noxious matter, be it from some outside source, as in different chronic intoxications, or by some locality in the body which always produces the venom afresh (p. 270).

It is impossible to give in a small space a proper account of the book, whose leading principles are still the same already known. The present edition is considerably enlarged, with several additional engravings. All the principal recent discoveries which have any bearing are duly registered and brought to harmonise with the whole system. With all its strange conjectures, the "Cellular Pathology" of Professor Virchow is highly interesting, and well worthy the attention of the Profession, and its able translator ought to put himself to work again.

SIR HENRY HOLLAND. BART., M.D., F.R.S., D.C.L.(a)

No. II.

Holland commenced practice in 1816 in Mount-street, Grosvenor-square, and four years after removed to the house he now occupies in Brook-street—a house possessing, as he mentions, a charm for him, as Burke was in the habit of breakfasting there when he came up to town from Beaconsfield. But was not Burke staying at this very house at the time of his famous speech against Warren Hastings? For four successive years after his commencement of practice, Holland was in the habit of visiting Spa professionally. This brought him into contact with Wellington, Londonderry, the Duc de Richelieu, the Emperor Alexander, the Prince and Princess of Orange, the Duke and Duchess of Cumberland, and other notabilities. We gladly quote what Sir Henry says of a man as "well abused" as any public man has been in our times. Whatever were the faults of "Lord Castlereagh," something—nay, a good deal—must be allowed for them in the character of the times in which he lived. "I had a good deal of intercourse with Lord Londonderry at Spa, accompanying him in several excursions over the surrounding country. There was a certain nobility of presence and demeanour about him agreeable to the eye. Nor was this belied by his conversation—always, in my recollection of it, acute and intelligent, and in manner calmly courteous. This estimate, I am aware, is not commonly received. The sarcasms of Moore's poetry,(b) and one or two Parliamentary anecdotes, have clung to him with epigrammatic force. I may add I never met a man for whom I should less have predicted the unhappy way in which his life was closed. Within a short period of time three of his contemporaries—all men of note in public life—came to their end in a similar way." Two of these men were as much opposed in character to Lord Londonderry as could possibly be conceived—one, his fierce political opponent, was consistent and able (Samuel Whitbread); the other, the good, affectionate, and melancholy Romilly. Whilst on the subject of personal sketches, we may refer to what Sir Henry says about the "great Lord Erskine." Here are his words:—"In singular contrast to Sir S. Romilly came Lord Erskine, of whom, indeed, I saw much less, and at a time when his faculties had undergone a decay more obvious to others than to himself. He was still eager and eloquent in speech, but with a certain restless irritability, augmented, as I believe, by narrow worldly circumstances, and what he deemed the neglect of his former political friends. His mind, too, when I knew him, was clouded by little foibles and superstitions. I well recollect a dinner at Sir S. Romilly's where his agitation was curiously shown in his reluctance to sit down as one of thirteen at table, and by the relief he experienced when the fourteenth came in. His life had been one of *meteoric* kind throughout, vanishing in mist, as such lives are prone to do." Now, we emphatically protest against what we regard as this unjust "sketch" of Lord Erskine. We might with as much reason draw our conclusions respecting Marlborough or Swift from the distich of Pope—

> "From Marlborough's eyes the tears of dotage flow,
> And Swift expires a driveller and a show."

Every one knows that in his later years Erskine had become addicted to the use of opium in large doses; that he became irritable, vain, and querulous. He had much cause to complain of the neglect of his former friends, notably of the Prince Regent. But it would be as unjust to Erskine to forget his former life—his services to the cause of liberty of the press, his great speeches on trial by jury—as it would be unjust to Marlborough to forget the battle of Blenheim, or to Swift that he was the author of "Gulliver's Travels" and the "Tale of a Tub," and, at the time, the more celebrated "Drapier's Letters." To recur to the "Recollections"—in Paris in 1818, Holland dined at the house of the Countess Rumford, widow of Lavoisier. Here is the list of the illustrious guests: Laplace, Cuvier, Berthollet, Gay-Lussac, and Prony; Madame Laplace, Madame Berthollet, and Mrs. Marcet; Berzelius came in in the evening. Holland adds this melancholy line, "I am now the only one of these alive." In another memorable visit to Paris, just thirty years afterwards, he came into contact with Arago, Leverrier, Dumas, and Elie de Beaumont. Sir Henry's work is so discursive that it is impossible that we can be otherwise in our review of it. Early in practice he had some idea of becoming one of the Physicians of St. George's Hospital; but, no vacancy occurring until he was in considerable practice, he abandoned the intention. He seems to have been well satisfied that he did not become attached to the institution, as it afforded him more leisure for travel and for the indulgence of those literary and scientific pursuits so dear to him. We may here state that Sir Henry's practice continued large and lucrative for many years, and that he is now gradually and quietly retiring from it—not altogether, as employment is essential to him, but in consonance with his determination to do so. He was appointed Physician Extraordinary to the Queen in 1837; Physician-in-Ordinary in 1852. He was created a Baronet in 1853, the offer having been previously made by Lord Melbourne, but declined, on account of his anxiety for providing liberally for his eldest son. He became F.R.S. in 1816,(c) being introduced to that august body the same evening as Lord Byron. In 1847 the title of LL.D. was conferred on him by the University of Cambridge, Massachusetts; in 1856 he received the D.C.L. of Oxford, and somewhat later was elected one of the five Honorary Members of the Royal Academy. Amongst the more interesting of Sir Henry's sketches is the description of the meetings held by Sir Joseph Banks of the Fellows of the Royal Society in Soho-square. Here is an amusing sketch of the man who formed so prominent a figure in some of the best satires of Dr. Wolcot—"Peter Pindar":—"Sir Joseph Banks himself was necessarily a very conspicuous personage in these parties at his house. Seated and wheeled about in his arm-chair, his limbs helplessly knotted with gouty tumours, speaking no other language than English, and carrying his scientific knowledge little beyond the domain of natural history, he nevertheless looked the governing power of the Royal Society, and was such in reality. I had frequent occasion to notice the strong impression his aspect and demeanour made upon foreigners—men of science and others—who came over to England at this period of renewed Continental intercourse. It is less paradoxical than it may seem to say that this impression was strengthened by the very fact of his not speaking any foreign language. Silence often carries more weight with it than speech, and especially when the latter is encumbered with the effort to find words for its object. The intellect here becomes the slave of the instrument, and thought and argument are lost in the struggle to give them right expression. Sir Joseph Banks, silent in his chair, was more imposing than he would have been exchanging imperfect

(a) "Recollections of a Life." By Sir H. Holland, M.D., etc. Longmans.

(b) Sir Henry might have added, the savage epigrams of Byron.

(c) By the death of Dr. Granville, recorded in our last, Sir Henry became the oldest Fellow of the Royal Society.

phrases, whether of science or courtesy, with the strangers who came to visit him." These meetings were held on Sunday evenings, and here are the names of some of those who attended them most constantly:—Cavendish, Wollaston, Young, Davy, Chenevix, Davies Gilbert, Pond, Prout, Robert Brown, Tenant, Hatchett, and Warburton. Sir W. Herschell and Dalton occasionally attended. The following quotation relates to three of the most remarkable of this group, and is of great interest:—

"Two striking figures at these meetings were Cavendish and Wollaston—the former the shyest and most taciturn of men; listening intently when discussion was going on, but never taking part in it, and shrinking out of sight if reference were made to himself or his own researches—Wollaston, sternly logical and sceptical, listening to others as if ever ready to refute or rebuke; and generally doing so by pungent questions to which few could venture to reply. I have often known a plausible theory, uttered by someone unconscious of Wollaston's presence, suddenly upset by two or three of these abrupt questions or comments. To the mere pretence of science he showed no mercy. The habitual scepticism of his mind was, however, a hindrance to his own scientific career. This was strikingly shown in the circumstances attending his discovery of the metal palladium; and at a later time in his relation to the greater discovery of the electro-magnetic rotation. Though the first to denote the dark lines in the solar spectrum, the germ of so many later researches, he did not himself carry the observation further. That aid which hypothesis, duly limited, renders to experimental inquiry, he unduly disdained and put aside. He would have accomplished more had he doubted less.

"At these parties in Soho-square, the youthful and more elastic genius of Davy came in striking contrast to the inflexibility of Wollaston and the *umbratilis vita* and hereditary taciturnity of Cavendish. His early successes in science had emboldened a mind naturally ardent and speculative; and I well remember the eagerness with which men clustered around him to listen to his eloquent anticipations of future progress, many of these now more than fulfilled. His lectures at the Royal Institution, novel and earnest in manner, and invigorated by the succession of discoveries they recorded, brought crowds of admiring hearers. Admiration, indeed, derived from other sources than those of science was one of several concurrent influences on Davy's natural character, altering it disadvantageously in several respects. I knew him intimately throughout the greater part of his career; and with melancholy interest through those stages of decline sequent on his first paralytic attack. I saw him under this seizure a few hours after its occurrence, and when he was hardly yet aware of its nature or import. The peculiarities of his mind, his genius and irritability, were strikingly marked when the consciousness of the event came fully upon him.

"So in a different way were those of Wollaston, under another form of cerebral disease, which, though less sudden in its beginning, ended more speedily in death. Watching over his latter days with Sir B. Brodie, it was matter of deep interest to us to observe his philosophical mind taking calm but careful note of its own decay—the higher faculties, which were little if at all impaired, occupied in testing, by daily experiments of his own suggestion, the changes gradually taking place in the functions of the senses, the memory, and the voluntary power. Diagrams and figures drawn on a board before him were among the methods he thus employed. He had manifestly much interest, if not indeed a certain pleasure, in detecting the changes going on and in describing them to us. He would admit no interpretation of them save in reference to that final change which he constantly and calmly kept in view. It was a self-analysis of mind carried on to the last moments of life.

"Dr. Young, again, stood in singular contrast to each of the remarkable men just mentioned. His profound and very various knowledge was concealed under a certain spruceness of dress, demeanour, and voice, which strangely contradicted his Quaker origin, and perplexed those who had known him only from his scientific fame. I have seen the discoverer of some of the grandest and most occult laws of light loitering with ladies in a fashionable shop in Bond-street, helping them in the choice of ribbons and other millinery. But what might hastily be deemed affectation was in Dr. Young not really such, but genuine courtesy and kindness of heart. My attachment to him gave me much interest in the valuable memoir of his life by the late Dean of Ely, than whom no man was better able to appreciate his scientific achievements. These had been obscured for many years by an article of Lord Brougham's on his discoveries in the *Edinburgh Review*—an article to which the term *erroneous* is the mildest that can be applied. They were eventually restored to their proper place in the annals of science, by French philosophers succeeding in the same line of research. While interwoven with every part of the theory of light, they collaterally illustrate many others of the great physical problems of the universe."

Sir H. Holland refers with satisfaction to "The Club," the creation of more than a century ago, of Johnson, Burke, Sir Joshua Reynolds, Goldsmith, Garrick, etc. This club, at its centenary in 1864, numbered thirty-five, twenty-six of whom sat down to the dinner. Holland was elected a member in 1840, since which time many have been removed by death. Amongst these may be mentioned Lord Lansdowne, Macaulay, Hallam, Lord Aberdeen, Lord Holland, Lord Clarendon, Bishop Blomfield, Bishop Coplestone, Sydney Smith, Sir G. C. Lewis, Whewell, Lord Kingsdown, Dean Milman, Senior, Eastlake, Hawtrey, etc. Holland remarks—"When looking round our dinner-table, I cannot but feel at times how much the individualities are changed since I first sat there. With the exception of Lord Stanhope I am now the oldest member."

The concluding chapters of Sir Henry Holland's book refer more particularly to himself and his writings. He makes some valuable remarks on the influence of habits on health and on longevity. According to his experience, want of occupation is a very frequent cause of premature decay. He says—"Retirement from business and quietude of life are happy provisions, taken at the right time and in the right degree; but they may be adopted too soon, and too largely indulged in, and the vitality both of mind and body be unduly impaired by the very means employed to preserve it. Easy arm-chairs and other appliances of luxurious comfort are an invitation to indolence and to the disuse of faculties which need employment for their preservation."(d) So he considers the exercise of the intellectual faculties of the highest importance, and whatever the intellectual habit, these should be pursued, no long interval being allowed of abstention, or the habit would become irksome or lost. He managed, even in his busiest time, to snatch if only a few minutes for some "diversion of thought" from his Professional pursuits. With respect to books, he has never been a "book collector," and is rather in favour of *weeding* his library than adding to it. He refers to his contributions to literature, the earliest of which was published in 1810, the latest in 1871. He wrote both for the *Quarterly* and the *Edinburgh Reviews*. He states that on no occasion did he enter into any political discussion, and appears to be pleased with the fact that only on one occasion did a review of his offend the author of the book reviewed. The two great reviews with which his name is honourably associated would never have attained their great reputation if all the writers for them had pursued so Fabian a policy. His work entitled "Medical Notes and Reflections" has passed through three editions—the first was published in 1839, the last in 1855. The "Notes" consists of a series of papers of the most interesting character, chiefly concerning pathology or practice, and is too well known to require any lengthened notice here. It is certainly one of the most interesting and charming volumes ever written, and though by some regarded as "too sceptical on some points both of Medical doctrine and practice," every page is pregnant with thought and most valuable suggestions.

Hitherto we have spoken in terms of warm commendation of Sir H. Holland's "Recollections," and it is fully deserving of that praise; but it is impossible to rise from its perusal without a feeling of disappointment at his omission of almost every Medical celebrity of his day. He must have come into contact, Professionally and otherwise, with many men of whom we should

(d) We well remember the last consultation we had with Sir Astley Cooper, after his return to practice in Conduit-street. He spoke of the irksomeness of his retirement, of the almost intolerable *ennui* he endured. "Ah," he said, "never retire, as they call it; depend upon it there is no rest where there is no work." Many of our readers will recollect James Milman Coley, who was a frequent visitor and speaker at the societies about twenty-five years ago. We used to call him the "Old boy." Though about 75 years of age, he had the manner and vivacity of a youth. He came to London when upwards of 70 to make a practice, and was Physician for some time to Pimlico Dispensary. He did not succeed in London, and having obtained the appointment of Physician to the Embassy at Brussels, removed to that city. I was astonished at the ease with which he mounted the stairs of the Hotel de Ville, and said, "Why, Coley, you are younger than I am." "Oh," he said, "we are a long-lived family; I attribute this to our active and regular habits. My father succumbed to idleness—he retired when he was 90; took to indolence, smoking, etc., and did not live long afterwards. I shall not follow his example." Poor Coley! he suffered from reverses, got into ill-health, became paralysed, and died a few years since. He was a man of varied acquirements, and of considerable intellectual power. When engaged in a most extensive practice in Shropshire he managed to write regularly for Dr Johnson's *Medico-Chirurgical Review*. His remuneration consisted of the books he received for review.

be glad to have heard something more about. It is true that Sir Henry more than once informs us that he has purposely avoided reference to Professional anecdotes, and, of course, we must suppose Professional men of his own calling. At all events, he mentions the names of one Physician and one Surgeon only with whom he was acquainted during his long career. The latter he merely mentions by name; the former he dismisses thus curtly and unsatisfactorily. Speaking of Joanna Baillie and her sister Agnes, he says: "Their brother, Dr. Baillie, exhausted by years of Professional toil when youth was already gone by, and reaching repose only when it was too late to be of avail, died when but 64. He was the Physician with whom I was most intimate in my early Professional life—a man of simple and generous nature, in no way sullied by his large intercourse with the world." We are sure we shall be joined in our expressions of regret by many, very many, of Sir Henry Holland's Medical readers that he has not given us more anecdotes of his Professional life and more sketches of his Professional brethren. Anecdotes told in his striking way, and sketches drawn with his graphic power, would have been most acceptable. An extra chapter of his "Recollections" devoted to such anecdotes and sketches would have made his work of surpassing interest to the Profession. Is it too much to hope that he may yet favour us with that chapter? With what interest should we read his account of such men as the second Warren, Nevinson, Maton, Charles Clarke, Gooch, Halford, Jenner, Paris, and Chambers, of some of whom we know little or nothing—of the Surgeons with whom he probably came into contact, and who would form subjects for his pen: the first Hawkins, Gunning, Astley Cooper, Brodie, the first Keate, Cline, Abernethy, and Lawrence? Of Cline we know literally nothing; and yet he was one of the most considerable men of his time in various respects. He was, unquestionably, a Surgeon of the very first class, and was an accomplished gentleman. He had political views of an extreme character, but he was bold, honest, and single-minded.

In speaking of his earlier career, Sir Henry states that he ventured to disregard the admonitions tendered to him by persons of large experience in London practice. It was told him, and told very truly as a general fact, that there was danger to a young Physician in gaining other repute than that belonging strictly to his Profession; that the suspicion of literary tastes, or even of devotion to other parts of physical science, was taken as of evil augury for his Medical ability. "More than one instance, indeed," says Sir Henry, "had occurred to my own knowledge of failure owing presumably to this course, when all other circumstances promised success. The question bore directly on my own case, since with my fondness for travel I blended the inclination to certain other pursuits which I had taken up in early life, and was unwilling to relinquish." In a note on this subject, the following amusing anecdote is related:—"A man of high political rank, being remonstrated with by his family for employing a particular Physician, pleaded in reply that Dr. —— was so ignorant of everything else, that he could not be otherwise than profound in Medicine." There can be no doubt that if a reputation is acquired by a Physician for anything not strictly Medical, it may interfere with his Professional progress. But this is confined mainly to those cases in which the *real* work of life has been neglected for the *ideal*. Men who combine with what Baillie said—"A moderate amount of information, with good common sense"—earnestness and industry, will not find "accomplishments" interfere with their success as Medical Practitioners. The classical attainments of Sydenham, Mead, and Halford, the study of natural history by Jenner(e) and Wells, of physics by Paris and Arnott, did not interfere with their success or reputation as Physicians. When men fail from any such "acquirements," it certainly depends on some cause independent in a great measure of them. The law, our kindred profession, is open to the same objection; yet Blackstone, Denman, and Talfourd wrote poetry, were scholars, and were withal great lawyers. However, Sir Henry Holland is himself a remarkable illustration of a man rising to the highest distinction as a Physician, not because he had not other claims to distinction, but apparently because he had. His life appears to have been one singularly calm and unconstrained—methodical to a degree which shows an amount of self-command and determination which is rare indeed. But he had been from the first in easy circumstances, had good health, and no severe family afflictions. A wonderful constitution it must be indeed, physically and mentally, that enables a man in his 84th year to write a book like this, run along the streets like a boy, and enjoy the comforts, if not the luxuries, of life. There is much in the closing chapter which we should have been glad to quote, but our space is exhausted, and we must refer the reader to the book itself, promising him a rich intellectual treat from its perusal.

One of the most interesting chapters in the "Recollections" is that which refers to a "generation now nearly gone by," and a parallel the author draws between that and the present. He puts the question to himself whether the present is better or worse—morally, intellectually, and socially—than the generation gone before it. The question, he admits, is one difficult to answer; but he treats it in the spirit of an impartial and liberal observer. He is not, like some old men, infatuated with the past and dissatisfied with the present, but he compares the two, so as to do justice to both. What he describes as the *deterioration* of society he attributes to *overcrowding*. The cause of this is "a more miscellaneous intermingling of the different elements of society—the lower gaining, I fear it must be admitted, in their proportion to the higher." There is a little cynicism in the following, but there is some justice in the remark:—"The crowded dinner-tables of the present day, and still more those evening assemblages, under whatever fanciful name convoked—stifling breath as well as conversation—have largely swelled society, but not improved it. The practical definition of a crowd, of whatever rank it is composed, approaches closely to that of a mob; the intellect and happier refinements of society alike suffer from it. The men of genius, literature, and wit are doubtless as numerous in London as heretofore; but they are less marked individually in the multitude, and many of them partially concealed by their connexion with the anonymous periodical writings of the day." Recollections of the dinner parties and the evening gatherings at Holland House and elsewhere no doubt had their effect in producing the above sentences. The following is so much in accord with what we have repeatedly urged in this journal that we quote it entire. No observer of the times can fail to acknowledge the truth of these observations, particularly so far as they refer to Medical institutions:—

"I might enumerate, from my experience, other and more important influences, moral as well as physical, of this overcrowded life, were these things not alien to the purpose of my narrative. There is, however, one particular result on which I would say a few words, inasmuch as its effects upon society are patent to daily experience, and call strongly for correction. This is the present extravagant multiplication of societies and institutions of every kind, dividing and subdividing all the concerns of human life—charities, literature, science, art, the professions, trades, and social intercourse in all its shapes. Scheme follows scheme in rapid succession, and the devising and prosecution of these schemes has become itself a profession to many. With every allowance for increasing population and wealth, life and estate in London are grievously over-ridden by the multitude of the exactions thus imposed; often wholly fruitless for the objects assigned, and consuming in their method of use the means that have been evoked for more laudable purposes. Of the endless institutions thus created by public charity, fashion, or credulity, many speedily become mendicant; while those of higher and better purpose are starved in the struggle of competition. To annul some of these institutions altogether, and to concentrate others into co-operation, may be a work of difficulty, but is well deserving a vigorous effort to accomplish it. Those belonging to charitable objects especially need revision and reformation. I cannot doubt, from what I have myself seen, that the pauperism of London is augmented rather than relieved by their multiplicity and maladministration."

Sir Henry pays a graceful compliment to the press, and acknowledges its great influence, the vast ability employed upon it, and characterises it as "happily tempered by knowledge, good taste, and right temper in most instances, but capable of being mischievously used—and too frequently so used—among those with whom these qualities have little or no value."

Sir Henry has been struck with two results of the progress and diffusion of physical knowledge. One is the "boldness of modern hypotheses in regard to the highest problems of the universe and of man"; "the other is the more general and rigid demand for *evidence* on every subject of inquiry resulting from these methods of research, and not limited to physical science only, but extending to other and very dissimilar questions, in which truth is the object sought for." He fully appreciates the value of this change. He then discusses the influence which London clubs have exerted on society, and thinks that they have tended to refine it. He considers that society has

[c] Jenner, moreover, wrote poetry of a character which stamps him as being imbued with true poetic genius.

been very much modified in the present day by the closer intermingling of the higher and middle classes of society, due to many causes: the increase of wealth amongst the latter, the altered constitution of the House of Commons, modern modes of travelling, etc. Life, too, is faster in every way—people walk faster and live faster than they did. Religious thought and action have come into full force, in place of "quietude" or "stagnation." The chapter finishes with some admirable remarks on the "wits" of the past and present generations; but for these we must refer the reader to the book itself.

In concluding this somewhat desultory notice, we may say that Sir Henry Holland has mixed little with his Professional brethren. We have never seen him in a Medical society, nor, with one or two exceptions, at the gatherings of either of the Royal Colleges; but he was nearly a constant attendant at the Friday evening meetings at the Royal Institution, of which he was Vice-President, and is now President. We think this isolation of himself is to be regretted—not, perhaps, as regards himself, but his brethren. It was perhaps too much to expect of him that he should attend these meetings; he had great and irresistible attractions in other quarters. The man who could pass his evenings in conversations with Madame de Staël and Macintosh, in "coaching up" Lord Palmerston on the spectrum analysis, chatting with Lord Aberdeen, breakfasting with Cobden, dining with Rogers, or at Holland House, in company with "all the talents" of the time, as well as—

"Chiefs out of war and statesmen out of place,"

might be forgiven for neglecting the somewhat dull and prosaic *réunions* of the brethren of his own craft. Certainly his sympathies appear to have been with "great and distinguished persons" rather than with those less great and distinguished persons who were merely "Doctors." Finally, however, we may say of Holland as Sir Robert Peel said of Lord Palmerston—"We are all proud of him." J. F. C.

REVIEWS.

Treatment of Fractures of the Limbs. By S. Gamgee, Fellow of the Royal Society of Edinburgh, Surgeon to the Queen's Hospital, Birmingham. London: J. and A. Churchill. 1871.

This monograph neither is, nor pretends to be, a complete treatise on the subject of which it treats. It is put forth rather with the intention of defending and advocating one particular kind of treatment of fractures, and, as the author declares, with the hope that it may "contribute to the establishment of sound first principles, ... and to the transference of one of the most important departments of Surgical practice, from the stage of contradictory teaching to scientific generalisation."

The volume consists of an appendix and eight lectures. Seven of the lectures have been delivered at various times since 1862 to the students at the Queen's Hospital; the eighth is a condensation and revision of several addresses to students and papers to Medical societies. The appendix explains by descriptions and illustrations how the principles of treatment contended for in the lectures are to be put into practice.

The points upon which such conflicting opinions have been, and still are, held by Surgeons and Surgical teachers of eminence, and which Mr. Gamgee discusses, are numerous, the most prominent being the advisability of setting fractures at once, or after two or three days have been allowed for the subsidence of swelling; whether all fractures are or are not accompanied or followed by swelling at the seat of injury; whether the displacing force acting upon the ends of a fractured bone is entirely vital—*i.e.*, muscular—or whether it is partly vital and partly physical, and sometimes wholly the latter.

The treatment which the author contends for is one which has been long employed by him, and that, too, continuously, since he first put it into practice in University College Hospital in 1852. He states that he has again and again proved the advantage of it over other methods. He quotes many cases in support of it, and urges its claims upon physiological grounds. Its characteristics are, in his own words, "Firstly, immediate reduction, regardless of spasm, blebs, extravasation of blood, or inflammatory swelling; secondly, circular compression; thirdly, immobilisation." He emphatically denies that the great feature of the treatment is *a starched bandage*, which he considers as little more than an efficient substitute for the pins ordinarily employed in bandaging. He, too, justly condemns the confusion of a *compressing* with a *constricting* apparatus.

The author advocates his subject in language which is sometimes exaggerated and extravagant, generally high-flown, and always expressive of the completest self-confidence. Still, he has the merit of being clear and unequivocal, if dogmatic, and when argumentative his conclusions are, to our thinking, correct.

The work carries the impress of being the outcome of much earnest study and thought, and the result of long and wide experience, and we give credence to the author's assertion that, like Byron, when asked to perpetuate his curses to tyranny, he has taken care "to chew the cud before writing a line."

Though not exactly a work of easy reference for busy Practitioners, still to all who are concerned in the treatment of fractures it offers a large supply of material for thought, and the method of treatment it defends deserves a much wider trial and a much more dispassionate consideration from Surgeons than it has hitherto received.

NEW BOOKS, WITH SHORT CRITIQUES.

Photographic Clinique of the British Hospital for Diseases of the Skin. Edited by Balmanno Squire, M.B., Surgeon to the Hospital. No. I. Oval or True Keloid.

*** We have received the first number of this publication, and feel bound to say that it is a photograph of unusual excellence. Attention may be also drawn to the exceptional size of the photograph and the nevertheless unimpaired sharp definition of detail. Persons engaged in photography well understand the difficulty of combining so much distinctness with such size of detail, and an expert in photography would be able to see that the photograph is obtained *direct*, without intermediate process of any kind—a great advantage as regards the important matter of clearness of definition. The size achieved has not been attained, as it usually is, by the process of enlargement from a smaller photograph, nor has the photograph been "touched" either on the negative or the positive by any hand except that of the colourist. The photograph is superior to any photographs of skin diseases as yet published, inasmuch as the detail is much larger and the definition, nevertheless, clearer than in the series previously published by Mr. Balmanno Squire. The subscription-list still remains open for the current year at a slight increase of rate—viz., 22s. prepaid—the subscription-list of 21s. being restricted to those who paid their subscription before the commencement of the year. All communications should be addressed to the Secretary, at the Hospital, Great Marlborough-street.

Il Barth, Gazetta di Medicina e Scienze Naturali. No. 6. Del Dr. Gavino Gulia. Malta. March 9, 1872.

*** The only fault of "Il Barth" is its small size. It contains Medico-legal notes on the assertion hazarded by some Maltese Physicians, that it was possible to distinguish the dried stains of human blood from those of animals. The Editor's verdict is supplemented by that of Dr. J. Denis Macdonald, R.N., F.R.S. There is a case of diabetes treated by lactic acid and nitrogenous food by Dr. Carmelo Borg; a good account of *Coca*, reprinted from Dr. Scrivener's papers in the *Medical Times and Gazette;* and some interesting notes on the botany of the island.

Treatment of Dysentery.—Dr. Dale reports that the following formula has been for many years employed by the Practitioners of Kentucky with great success:—Sulphate of soda, ʒj.; sulphate of morphia, 1 grain; water, ʒvi. A tablespoonful every two hours until free watery evacuations are produced. The interval is then to be increased to four hours, continuing the mixture until the dysenteric symptoms cease. Thus administered in the early stages of spasmodic dysentery, it seldom fails to control the disease in two or three days.—*N. Y. Med. Record*, Feb. 15.

Removal of Plaster-of-Paris Bandages.—Dr. Carsten states that this is very easily accomplished by employing a concentrated solution of chloride of sodium. If the bandage be moistened with this, it becomes so yielding in a few minutes that a sharp knife finds little resistance. In the cut thus made some more of the solution should be poured, and after repeating this three or four times the bandage can be easily removed. The same solution is also very useful in cleansing the hands and nails of the operator.—*New York Medical Record*, February.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, March 26.

Students' Row at the Faculty of Medicine; List of Professors, Lectures, and Hours; M. Dolbeau, alleged Causes of his Unpopularity—Alcoholism—M. Littré—New Society of Positive Sociology—Société Protectrice de l'Enfance.

The opening of the summer session of the different Faculties took place during the course of the week, but that of one of the Professors of the School of Medicine was marked by scenes of a most scandalous nature. Allow me, first of all, to give you a programme of the course of lectures for this session, which I give in French, in order that your younger readers may familiarise themselves with the names and subjects of the leading members of the Profession in Paris before they visit Paris:—

Faculté de Médecine.

Les Cours d'Eté de la Faculté auront lieu dans l'ordre suivant.

Histoire naturelle médicale—M. Baillon, Lundi, Merer., Vend., à 11 heures.

Physiologie—M. Béclard, Lundi, Merer., Vend., à midi.

Pathologie chirurgicale—M. Dolbeau, Lundi, Merer., Vend., à 3 heures.

Médecine légale—M. Tardieu, Lundi, Merer., Vend, à 3 heures (petit amphithéatre).

Pharmacologie—M. Regnauld, Mardi, Jeudi, Samedi, à 11 heures.

Accouchements, Mal. des Femmes et des Enfants—M. Pajot, Mardi, Jeudi, Samedi, à midi.

Anatomie pathologique—M. Vulpian, Mardi, Jeudi, Samedi, à 2 heures.

Pathologie médicale—M. Hardy, Mardi, Jeudi, Samedi, à 3 heures.

Hygiène—M. Bouchardat, Mardi, Jeudi, Samedi, à 4 heures.

Thérapeutique et Matière Med.—M. Gubler, Mardi, Jeudi, Samedi, à 5 heures.

Clinique médicale—M. Bouillaud (supplée par M. Blacher, agrégé), à la Charité; M. G. Sée, à la Charité; M. Behier, à l'Hôtel-Dieu; M. Lasègue, á la Pitié—tous les jours le matin, de 8 à 10 heures.

Clinique chirurgicale—M. Richet, à l'Hôtel-Dieu; M. Gosselin, à la Charité; M. Duplay, agrégé, à la Pitié—tous les jours le matin, de 8 à 10 heures.

Clinique d'Accouchement—MM. Broca et Depaul, á l'Hôp. des Cliniq. et de la Faculté, tous les jours le matin, de 8 à 10 heures.

Cours Cliniques Complémentaires.

Maladies des Enfants—M. H. Roger, à l'Hôp. des Eufants, Lundi, Jeudi, Samedi, à 8½ heures.

Ophthalmologie—M. Trélat, à la Charité, Jeudi (leçon clinique) à 4 heures; Samedi (exerc. ophthalmolog.) à 4 heures.

Maladies syphilitiques—M. Fournier, à l'Hôp. de Lourcine, le Jeudi, à 9 heures.

Cours Complémentaire.

Chimie—M. Gautier, Lundi, Merc., Vend., à midi, petit amphithéatre.

On Wednesday, the 20th inst., M. Dolbeau, Professor of Surgical Pathology, was at his post at the appointed hour, but long before that time the students began to assemble in the court, and when the doors were open about 2000 entered and took their seats in the amphitheatre. At three o'clock M. Dolbeau made his entry, preceded by the beadle, and was received by a salvo of cheers, soon overpowered by a storm of hisses. For about five or six minutes after this vociferous demonstration there was a comparative dead silence, during which M. Dolbeau remained impassible. Some of the rebellious students finding that the Professor did not seem disposed to break the silence, redoubled their hisses, which were this time mingled with cries of "A la porte le dénonciateur! Qu'il donne sa démission! M. Dolbeau, expliquez-vous!" This cry became more general; soon after which one of the students approached the demonstration board, and with a piece of chalk renewed the demand for an explanation of the Professor's conduct in an affair which will be noticed hereafter, while at the same time slips of paper to the same purport were being circulated in the amphitheatre. To this the friends of M. Dolbeau responded that the Professor had no explanation to give them. At these words the clamours and hisses increased; the most insulting epithets were showered on the Professor, accompanied by volleys of paper balls and coin, the latter being conspicuous by the absence of gold and silver. One reporter even took the trouble of collecting the money, which is stated to have amounted to about fifty sous! These M. Dolbeau received with silent contempt. Then followed a general move, and the rival parties seemed to be on the point of coming to blows; but the fistic mode of deciding quarrels being unknown in France, this part of the scene ended in clouds of dust. During all this time the Professor remained seated in his chair in a dignified attitude, while the rebel students were determined not to allow him to utter a word.

This uproarious state of things continued for nearly an hour, when M. Wurtz, the Dean of the Faculty, made his appearance; and, although very popular, he was powerless to appease the wrath of the students. He was, however, cheered by them, which he gracefully acknowledged; and then, going up to M. Dolbeau, shook him by the hand, and after exchanging some words with him offered him his arm, and conducted him out of the theatre. M. Wurtz soon after returned, when he was again received with hearty cheers, and he caused the following to be written on the board:—"Que les manifestants quittent les gradins, et envoient leurs reclamations par l'organe d'un délégué?" None of the students had the courage to respond to this. So, after having rebuked them for their scandalous demeanour, the Dean said that such conduct, which occurred almost every year, would not only give the public an unfavourable opinion of the discipline of the School, but that they were thwarting their own interests in interrupting their studies, which were already so long suspended by the painful circumstances to which all had been more or less subjected, and from which the country had scarcely recovered itself, and he finished his discourse in the following terms:—

"Messieurs, vous abusez véritablement de la résolution que j'ai prise d'éviter à l'Ecole la présence des agents de la force publique. Mais sachez que de telles manifestations ne sauraient rester impunies, et que je suis plus que jamais résolu à y mettre fin. Quant aux faits reprochés à M. Dolbeau, ils sont tout à fait en dehors du Professeur."

This latter theory of separating the man from his official capacity, and of reviving the theory of two distinct moral agents existing in the same individual, did not seem to satisfy the radicals.

After this short allocution, M. Wurtz left the amphitheatre, and recommended the students to do the same. This was done in the greatest order.

Stringent measures were taken to prevent a recurrence of the disorder, and the following resolution, signed by the Dean, was pasted up in different parts of the School and principal Hospitals:—"En raison des désordres graves qui se sonts produits dans la journée du 20 Mars, la Faculté a pris la décision suivante à l'unanimité:—1. Les élevès en médecine seuls pourront entrer dans l'Ecole, sur la présentation de leur feuille d'inscription. 2. Si les désordres se renouvellent les cours seront suspendus." And the following injunction was noticed on the demonstration board in the amphitheatre:—"La suspension des cours et des examens ne pouvant que nuire à beaucoup d'étudiants, ne serait-il pas sage do s'abstenir de faire une seconde demonstration?"

Notwithstanding this, much the same disgraceful scenes took place on Friday. M. Dolbeau was obliged to leave the theatre. M. Wurtz was equally unsuccessful, and he therefore announced the closing of the School, which resolution was pasted on the principal entrance of the School in the following terms:—"Les cours et les examens de la Faculté sont suspendus. Une affiche ultérieure fera connaître la date de la réouverture," which produced great consternation among all concerned, innocent as well as guilty, as this will not only interfere with their studies, but may be the means of blasting their prospects in life.

Now as to the cause of these disturbances. You will of course be prepared to have different versions of the whole affair. M. Dolbeau is accused of having denounced two "Federates" who were under his care in the Hôpital Beaujon when the Versailles troops entered Paris in May last year, one of whom was set at liberty, and the other shot on the spot. It turns out, from authentic information, that this is totally incorrect, and the real facts have been most shamefully misrepresented. The truth is, M. Dolbeau is very unpopular among the students, as he is said to be unnecessarily severe at the examinations and in his Hospital discipline. He is perhaps the ablest Surgeon in Paris, but so reserved and little communicative as to be considered surly and conceited. Moreover, when

called in consultation by some of his *confrères*, he is said to speak disparagingly of them—and in their presence, too—to patients; which, if true, would justify his *confrères* in shunning him as they would a viper. It will be remembered that these "manifestations" have taken place from time to time; some of them may have had a political significance, but the greater part have occurred with Professors who are unusually severe at the examinations, and this goes to prove the inexpediency of having the offices of teacher and examiner filled by the same person. I shall, with your permission, write more on this latter subject on a future occasion.

The School of Medicine will be closed during the Easter holidays, which last for a week, commencing from to-morrow. It is to be hoped that the "*mutins*," as the rebel students are called in French, will have had sufficient time for calm reflection, and return to their benches wiser and better men than when they left them.

In your editorial of last week I find you notice the formation in Paris of an "Association against the Abuse of Alcoholic Drinks," and you very justly express your surprise that such an association had not been organised before now in France. The French are a very sensitive people, and they look upon all innovations with suspicion. When anything new is mooted, they are tardy in accepting it, as they are always afraid of an attempt on their liberty—a thing so greatly cherished by the French, and yet so ill-used, as we on this side of the Channel know to our cost. There already exists in Paris an Association against the Abuse of Tobacco. Alcoholism is increasing to an alarming extent in France. Among the principal causes of suicide habitual drunkenness ranks as one of the first, and M. Legoyt, the official statistician to Government, has made the alarming statement that, owing to this cause, to every woman who commits suicide there are seven men.

A meeting of the Medical members of the National Assembly has just taken place at Versailles, under the presidentship of the illustrious M. Littré, to examine and report upon the subject for submission to the Chamber of Deputies. A warm discussion took place on the minute proposed by M. Theophile Roussel, which is to the effect that if any individual who, under the influence of alcoholism, commits a crime is acquitted on the plea of irresponsibility, he ought to be condemned for drunkenness and punished very severely. This proposition was negatived, and no other resolution has for the present been adopted. In St. Petersburg and other large cities of Russia drunkenness is considered a crime, for which the culprit is flogged in public; and if this were adopted in our more civilised towns, we should see fewer of those degrading scenes that are occasionally witnessed in the streets.

Apropos of M. Littré, I may mention that the great lexicographer and Academician is organising a Society in Paris entitled the "Société de Sociologie"; and from its programme I learn that the object of the Society is "the scientific study of social and political problems." Its fundamental principles are those of positivism, and the Committee of Management for the present year consists of M. E. Littré, President; MM. Ch. Robin and G. Wyrouboff; MM. T. E. Cathelineau and Antonin-Dubost, Secretaries; and M. Caubet, Treasurer and Archivist. There are already twenty-five members, and these are styled "*membres fondateurs*." There are as yet but two corresponding or honorary members named, the celebrated J. Stuart Mill, of England, and M. de Roberty, of Russia.

One of the most useful Societies in France is, beyond doubt, the Société Protectrice de l'Enfance, which, as its name implies, is intended for the protection of infants, particularly those brought up by wet-nurses or by the hand, and prizes, consisting of bronze medals, accompanied with a certain sum of money, are annually distributed to those nurses who exhibit the healthiest babies. This boon has just been extended to mothers, in order to encourage them to nurse their own children. At the last annual meeting of this Society, which was held only lately, a woman, the wife of an artisan, exhibited a triplet a few weeks old. They seemed well developed, but I am afraid they will not live long, as the mother, not being sufficiently strong to nurse them, is obliged to bring them up by the hand. She received a small donation as an act of charity, and I suppose by way of encouragement, as the Society is justly alarmed at the gradual degradation and depopulation of France. Besides these prizes, others, in the form of medals, are awarded to the most meritorious inspectors, whose functions are to have a surveillance over the children in the provinces; and, lastly, prizes are annually offered to the best authors on subjects proposed by the Society. That for the present year is "Des Causes du Rachitisme," and the prize offered is £20, with or without a gold medal, according to the option of the Prize Committee. The subject is open to public competition, and even foreigners are admitted. The manuscripts, written in French, are to be forwarded, post paid, to the Secretary, Dr. Alex. Mayer, 17, Rue Béranger, and should reach his office before November 1, 1872. The manuscripts are not to be signed by the authors, but a motto is to be affixed instead, which will correspond with a similar one on a sealed envelope enclosing the real name and address of the author. Papers rejected will not be returned. I may here mention that the Society is composed of members of both sexes, lay as well as Medical, its present President being M. Béclard, Member of the Academy of Medicine and of the Council of General Salubrity. An urgent appeal is made to all interested in the work; and this, I should say, would be the proper field for the gentler sex.

PROVINCIAL CORRESPONDENCE.

BIRMINGHAM.

March 20.

Small-pox still continues to prevail extensively in this town. The number, as reported by the sanitary inspector for the borough, for the week ending March 16, shows a decrease of twelve cases on the number reported in the previous week. The total number of cases reported up to the present time is 1062—Number of new cases 44, number vaccinated 39, not known 1, number not vaccinated 4, cases at workhouse infirmary 74, cases at Queen's Hospital 9, cases recovered 34, deaths 6, number of cases remaining 119. The accommodation provided for the reception of cases is none too great. At the workhouse a building has been erected by the guardians for pauper and other patients, and a special Medical officer has been appointed to take charge of them. We are informed that this Medical officer does not, however, possess the Professional qualifications required by the Poor-law Board. Whether or not this be correct, the reports which he has from time to time issued show him to be a man not deficient in skill and judgment.

The Parish Dispensary gives complete satisfaction to all parties. To the guardians it has proved a valuable auxiliary to parochial dispensation by reducing the amount of pauperism; the Doctors are quite satisfied with it, inasmuch as, among other reasons, their private residences now are private, the patients are better disciplined and physicked; and the public is at last satisfied that the poor are properly attended, and get good medicines. Even the patients themselves express gratitude for the new and improved order of things. The sanitary question, so far as it will affect Poor-law Medical Officers, is the question with us here. From what we can gather, our parish Doctors are not indisposed to act in the capacity of sanitary inspectors—in fact, they would regard the appointment with favour, providing that suitable stipends be attached to them. They do not in this respect agree with the views of their *confrères* at Cardiff. Some little time since the guardians, owing to the outbreak of small-pox, took the "contagion" alarm, and made a tremendous outcry about the number of patients who were in the habit of assembling in the waiting-hall. They imagined that a focus of disease would be created, and that even themselves would become victims of pestilential disorders. This not altogether unreasonable fear ended in good results, for, on inspection of the premises, the chief nuisance was discovered—not in the assemblage of patients, but in an indescribable quantity of noisome rubbish lying *perdu*, consisting of bygone cleanings, and which emitted the rankest odours. This being removed, together with a thorough cleansing, the place became so sweet as to defy the most sensitive nostril. The end of it all is that the Dispensary is pronounced by friends and foes alike to be a perfect success. At the outset the Medical officers thought that the system would entail too much clerical labour, but this belief has vanished under the test of experience.

The Committee of the Queen's Hospital has paid the working men a graceful compliment as an acknowledgment of their labours on behalf of the Extension Fund. From amongst their number twenty have been appointed life governors of the Hospital. This infusion of the real working element will, it is hoped, stimulate the artisan classes to take a more active share in the sustentation of the charities which are mainly erected for their benefit than they have hitherto done. The working men have certainly accomplished a great deal

for this institution; still, to make amends for past shortcomings, much more is due from them.

At the branch meeting of the British Association a few days ago a most unseemly uproar occurred. It arose out of the "Club question." Some half a dozen gentlemen of good Professional standing (holding anti-Club opinions) having been proposed as members, were unanimously blackballed. This, of course, gave great offence to their proposers and partisans. What the result of the row may be we will not be rash enough to predict.

SCOTLAND.

EDINBURGH, March 25.

To all who desire to see the distracting question of female medical education finally disposed of, the position which that question has now assumed will be a matter of congratulation. At the instance of the lady-students, a Court of Session summons has been served on the Senatus Academicus and Chancellor of Edinburgh University, with the view of having it declared that the University is bound to provide for and complete the Medical education (including graduation) of lady-students. The pleas in law advanced by them are as follows:

"1. According to the law and constitution of the University of Edinburgh, women are entitled, on payment of matriculation and Professors' fees, to attend the classes of any Professor as students, and are entitled to demand instruction from such Professor, which he is bound to give to them.

"2. According to the law and constitution of the University of Edinburgh, women are entitled to obtain degrees in Medicine, on proving that they are qualified in point of attainments and knowledge for that distinction. And the Senatus Academicus, whose province it is to regulate the teaching and discipline of the University, are bound to provide instruction to them, to admit them to examination as candidates for Medical degrees, and, on being found qualified, to recommend them to the Chancellor, in order that he may confer such degrees upon them.

"3. The pursuers having paid their matriculation fees, some for one, some for two, some for three years, on the faith of being permitted to continue their course of study with a view to a profession, and having gone on with this course of study by attendance on the classes of Professors, and this with the knowledge of the Senatus Academicus, the latter are now barred from pleading that women are not entitled to receive instruction at the University, or to obtain Medical degrees.

"4. According to the laws by which Universities are governed, and apart from any special circumstances connected with the University of Edinburgh, women were entitled to demand and receive instruction from the Professors in their ordinary classes, and also were entitled to graduate; and the University of Edinburgh being modelled on the constitution of such other Universities, and being subject to the same laws, women are entitled to all such privileges from the University of Edinburgh."

Certainly, it is painful to see the Senatus Academicus and Chancellor of the University summoned into a court of law by a handful of wilful women who will have their own way. It would unquestionably have been much better had these venerable parties, with the forethought which might have been expected from them, looked before they leaped; and it is difficult to find palliation for their offence. To some of the ladies' most headstrong and headlong supporters out of the University doors, the excuse might be granted that "love is blind"; but there can be no such excuse for the unwarrantable and unkind dalliance of the University potentates.

It does, however, seem as though even they have been these few years spell-bound, and that they are only now finding the pleasing and easily pleased fairies of their dream suddenly transformed into veritable nightmares, whose talons are on their throats, and who threaten to take the wind out of them.

It is a popular belief that a nightmare ends either in awaking or in death. We would still indulge the hope that, to the University authorities, the end of theirs will be awaking, and that soon this incubus will be a dream of the past.

The decision of the legal point involved in the question of the admission of females into the University, which ought to have formed the starting-point of the whole matter, is now attempted to be made the hinge on which a door already constructed is to turn. It does not follow, however, that it will be so easy to close, or to avoid throwing wider open a door which has been made, as it would have been to have refrained from making it at all. Had the legal question been settled at first, the right of females to study Medicine would have been decided on the simple merits of the case. Now, however, it has become almost inseparably connected with, and weighted by, blunders of omission and commission on the part of the University authorities, which may go far to turn the balance in favour of the ladies.

It is almost self-evident that if we admit the right of ladies to become matriculated students of the University, we must allow that they are entitled to all the privileges of students of the University.

But if it is a question whether the University authorities, after having granted the ladies permission to become matriculated students, are not bound to grant them degrees, it is also a question whether, in allowing them to matriculate at all, they have not exceeded their powers.

This matter can never be satisfactorily settled on the strength of steps already taken, the legality of which is questionable; and although the University authorities by their past conduct may have greatly weakened their present case, and have taken the arguments out of their own mouths, in a court of law the public expect, and have a right to expect, that the points at issue will be tried apart from, and unprejudiced by, past inconsistencies and blunders on the one side or on the other.

GENERAL CORRESPONDENCE.

MORPHIA *PLUS* CHLOROFORM.

LETTER FROM MR. FREDERICK JOS. MAVOR.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have the pleasure to inform you that I have for some years used morphia in conjunction with chloroform in cases of enteritis in the horse. My mode of proceeding has been to administer subcutaneously a full dose of morphia, and if the severe and violent pain was not relieved in a few hours, to cast the horse and administer chloroform by inhalation, when I have produced by one ounce of chloroform a profound and unbroken sleep for seven or eight hours, my patient waking convalescent. I may add that I am at the present time experimenting with the vegetable alkaloids in conjunction with chloroform, and, should I have anything worth recording, will again communicate with you. I am, &c.,

FREDK. JOS. MAVOR, M.R.C.V.S.

91, Park-street, Grosvenor-square, S.W., March 25.

RUPTURE OF THE HEART.

LETTER FROM DR. THOMAS B. DIPLOCK.

[To the Editor of the Medical Times and Gazette.]

SIR,—There are many, probably, to whom a statistical report of the comparative frequency of death from rupture of the heart will prove of interest sufficient to justify the insertion of the following report. The saying, "He died of a broken heart," may, indeed, be more frequently true in its absolute than in its metaphorical sense.

The preventive care of nature was proved by one case in which the apex of the left ventricle had become extremely thin; but rupture was prevented by the apex having become adherent at that part to the pericardium. Overcrowded or ill-ventilated dwellings will induce a tumultuous action of the heart, or even spasm that may cause death, and of course if any part of the heart is attenuated it may then give way.

Verdicts of Rupture of the Heart.

	Date.	Name.	Parish.	Age.	Sex.	Ruptured at
1	1868: April 3	S. D.	Chelsea	68	F	...
2	1869: Jan. 6	A. M. J.	Kensington	81	F	Apex of left ventricle
3	Feb. 6	W. G.	Feltham	57	M	Ditto
4	Oct. 4	H. F.	Fulham	26	M	Ditto
5	1870: June 13	M. A.	Hammersmith	51	F	Ditto
6	Oct. 19	T. C.	Feltham	32	M	Ditto
7	Nov. 8	W. G.	Chiswick	26	M	Ditto
8	1871: Jan. 3	E. C.	Ditto	57	F	Ditto
9	Jan. 20	P. T. H.	Kensington	77	M	Ditto
10	Jan. 26	C. O.	Chelsea	67	M	Centre of left ventricle
11	Feb. 1	H. C.	Ditto	71	F	Right auricle
12	Mar. 30	W. H. R.	Ditto	63	M	Apex of left ventricle
13	May 1	G. H.	Hammersmith	78	M	Ditto
14	Oct. 16	S. H.	Harrow	66	F	Right auricle
15	1872: Feb. 20	R. H.	Chelsea	70	M	Apex of left ventricle

Verdicts of Disease of Heart other than Rupture.

1868.	1869.	1870.	1871.	1872 (to Feb. 29).
50	69	68	79	11

I find from a committee report presented to the magistrates of this county in February, 1862, that the area of the Western Division is stated to be 109,000 acres (about 171 square miles) and the population 285,537—this latter by the census of 1871 is 416,547; therefore, taking the average population as 375,000, it appears that the average number of deaths from rupture of the heart is one annually for 90,000 persons. The average number of sudden deaths from other diseases of the heart would be one annually for every 6000 persons.

The return for 1868 is for ten months only, dating from my election at the end of February in that year.

I am, &c.,
THOS. B. DIPLOCK,
Coroner for the Western Division of Middlesex.

Coroner's Office, Ranelagh House, Fulham, March 5.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 12.

T. B. CURLING, F.R.S., President, in the Chair.

MR. WM. MACCORMAC read an account of a case of Resection of the Shoulder- and Elbow-joints in the same Arm, for Gunshot Injuries. This paper detailed the history of a French soldier who had been wounded at the battle of Sedan. The right arm, in the region of the shoulder- and elbow-joints, was extensively injured, the soft parts being much lacerated and the bones extensively comminuted by a shell explosion. The question arose whether it was at all possible to save the limb. Rather, however, than perform disarticulation at the shoulder-joint, Mr. MacCormac determined to excise both the shoulder- and elbow-joints—an operation hitherto, he believed, unique. The patient narrowly escaped death from pyæmia, but he afterwards made a satisfactory recovery; and the interest of the case centres in the amount of usefulness subsequently enjoyed by the limb. Some portions of necrosed humerus have yet to come away, and in the deltoid region a sinus still remains. The elbow is soundly healed, and regeneration of the excised bones has taken place. The operation was performed subperiosteally; and in the after-treatment the limb was supported on carefully adjusted cushions—a method Mr. MacCormac prefers in most cases to the employment of splints. The shoulder can now, after an interval of eighteen months, be moved freely backwards and forwards, but not raised from the side, the deltoid muscle having been almost completely destroyed by the original injury. Flexion, extension, and rotation are very perfect in the elbow, and the usefulness of the hand is nearly as good as before. Four inches of the upper end of the humerus, very greatly comminuted, was removed; and a long piece of ulna, in addition to the head of the radius and the articulating condyloid surface of the humerus, required removal. Mr. MacCormac considers that he may fairly claim this case as one of successful double resection of the two principal joints in the same upper extremity.

The PRESIDENT remarked that this case was probably unique, and as such very interesting.

MR. CROFT thought that splints were worse than useless in cases of resection in the upper extremity; had always used sand-bags with very good effect; and asked the author what special means were adopted to keep the limb quiet.

MR. TIMOTHY HOLMES thought that all excisions might be treated without splints; but he preferred in elbow cases to use a very light spliat, which really did no harm, and was specially adapted for children. He quoted a case in which no splints were used, a result being that the ends of the bone eventually projected from the wound. He asked for Mr. MacCormac's experiences as to subperiosteal operations; believed that the amount of bone saved was often hurtful rather than beneficial; instanced a case in point; and remarked that in successful excisions of the head of the humerus the arm can always be moved some way from the trunk, though the want of power in this case may have been caused by the great amount of injury done to the deltoid muscle.

MR. JOHN WOOD had discarded splints for some time; and ten days after the operation, commenced and continued to alter the position of the limb once every twenty-four hours, believing that with careful and frequent manipulation a very fair olecranon may be produced. He presumed that the question of splints or no splints entirely depended upon whether a movable or an anchylosed joint was required.

MR. SPENCER WELLS quoted a case that had occurred to a Continental Surgeon at Metz, in which a subperiosteal section of the entire humerus was successfully made. He believed that in active service splints were necessary, and that plaster-of-Paris bandages answered exceedingly well.

MR. THOMAS SMITH failed to comprehend how splints could be safely or properly dispensed with, and averred that with children they were absolutely necessary.

MR. MAUNDER thought that the question of splints wholly depended upon the sort of joint desired. He rarely used splints at all for the elbow, except in cases of children, and then only during the first week, but always applied them in knee cases, though he considered it an open question in excisions of the hip.

MR. CALLENDER was surprised that no reference had been made to the very capital anterior splint used in America, and asked Mr. MacCormac why no effort was made to save the limb in its entirety.

A VISITOR (an American Surgeon) said that the bent wire splint was much used in the United States, and believed that, in subperiosteal operations, mischief was sometimes caused by the subsequent growth of awkward spicula, which might, and indeed sometimes did, endanger arteries.

MR. SAVORY commented sarcastically on the varied experiences and the various facts that they had heard in the course of the discussion. Believing it to be an axiom in Surgery that repose was necessary to repair, he was surprised to hear Surgeons advocating a "perpetual motion" sort of practice with reference to excised joints. He also took exception to the title of the paper, inasmuch as about four inches of the humerus and a large mass of the ulna were removed by the operation.

MR. MACCORMAC, in replying, answered this last objection by remarking that the fragments alluded to were detached, lying in the wound bathed in pus; so that there was no option as to their removal.

MR. T. HOLMES read a paper "On the Surgical Treatment of Suppurating Ovarian Cysts, and on Pelvic Adhesions in Ovariotomy." A case is related in which chronic suppuration occurred in an ovarian tumour, after paracentesis had been performed for the first time. Ovariotomy was postponed for some months on account of the patient's condition. When it was performed the cyst was found extensively adherent in other directions, and so tightly wedged into the pelvis that it was impossible to reach its pedicle. It contained about a gallon and a half of fluid, of which about half was pure pus. The remains of the emptied cyst was dragged out of the abdomen, a clamp was applied to its neck (at a distance above the pedicle which could not be accurately ascertained), and the wound was closed. The patient recovered, and after her recovery no sinus was left, nor was any tumour to be felt. The symptoms of acute and chronic suppuration in ovarian cysts are discussed, and it is attempted to be shown that if the general condition admits of it the suspicion of suppuration is a reason for performing the operation instead of delaying it. The case is also used to show that, in some instances, the results of ovariotomy may be perfectly favourable, though pelvic adhesions have prevented the complete delivery of the tumour. If the neck of the cyst admits of being embraced in a clamp, the lower portion of it may be obliterated during the healing of the wound. The superiority of this method, when feasible, to the other courses which may be pursued in dealing with pelvic adhesions, is shown.

MR. BRYANT remarked that the accurate diagnosis of a suppurating ovarian cyst was most important; that wasting, a hot skin, a permanently high temperature, bad appetite, local pain and tenderness on pressure, all indicated suppuration. If any doubt as to the diagnosis exists, he would be still more induced to interfere quickly, to remove the cyst if possible, or to take away as much as could be removed. He quoted a case to show the desirability of not leaving ligatures, and one also that showed the useful peculiarities of catgut.

MR. SPENCER WELLS said that the diagnosis between an inflamed or suppurating ovarian cyst and peritonitis was generally easy, the chief point being that with a suppurating cyst there was considerable elevation in the temperature of the body, especially at night. In the morning it would range from 99° to 101°, and in the evening rise to 103° or 105°. In peritonitis, on the contrary—unless it were of the septic type—there was either no rise of temperature, or it might even fall

to about 97°. But practice would be the same in either case. Whether the patient's life is in danger from a suppurating cyst, or from peritonitis set up by the presence of the cyst, or from escape of ovarian fluid into the peritoneal cavity, the cyst and fluid should be removed. He had learned this lesson from Sir Thomas Watson. Operating with Dr. Farre on a lady whose peritoneum was acutely inflamed from the bursting of an ovarian cyst, they were very fearful of an aggravation of the peritonitis; but Sir Thomas Watson, with the rare clinical sagacity which was his great characteristic, said, "Now the irritating cause is removed we may hope the irritation will subside." And it did so in this case and in several others since. In one step of the operation he thought Mr. Holmes might have adopted a safer plan than separating the adhesions before emptying the cyst. These adhesions prevented any purulent or fetid fluid in the cyst from entering the peritoneal cavity, and in most cases it was generally better to completely empty the cyst before separating any adhesions. In cases where the cyst could not be removed a cure might sometimes be obtained by draining the cyst through a tube and daily injections of iodine or carbolic acid.

Mr. Holmes, in replying, doubted if the diagnostic signs spoken of by Mr. Wells were positive as well as negative, because in some cases high temperature exists without suppuration, and in some cases of peritonitis the temperature has been persistently high.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 19.

Mr. Hilton, F.R.C.S., President, in the Chair.

Mr. Sebastian Wilkinson exhibited a patient from the Central London Ophthalmic Hospital, the subject of Congenital Disease. This consisted of a kind of conjunctiva covering the whole of the eyes, or nearly so. It was vascular in its nature, but the outer part seemed thicker than the central portion. It was loosely attached. He had removed part of it, and the condition had slightly improved.

Mr. Hutchinson exhibited a Meningocele from the back of the head of a child 10 months old. The tumour was congenital, and cystic. It seemed tempting for removal, but experience had warned him against this, and he opposed it. He tried the tumour in various ways; it did not fill with the child's crying, and it had a very distinct pedicle. Its parents were very anxious to have it removed, and at last he consented to do so, under protest. The child did well. The specimen showed a communication with the interior of the skull, and there was a vein in the pedicle which bled freely when the child cried. The cyst did not communicate with the meningeal cavity. He acknowledged that in operating he had offended against the rule.

Mr. Hulke mentioned two cases showing the undesirability of interference. One tumour was situated at the root of the nose; removal was declined; but another Surgeon took it in hand, removed it carelessly, and death followed. He had seen another at the back of the head, where there seemed to be no communication with the cerebro-spinal cavity. It was dissected out, and its root could be traced to the cord. Inflammation followed, and death. No tubular communication with the meningeal cavity could be made out.

Mr. T. Smith confirmed this opinion. One which had been ligatured was brought to him. This ligature was rather loose, though it had eaten into the flesh, so he recommended another rather tighter. This was applied, and death followed.

The President remembered one on the top of a child's head on which Mr. Aston Key operated. After death he found a cord going down by the corpus callosum to beneath the lateral ventricles.

Mr. Hulke said several cases of tubular communication with the ventricles had been recorded by Billroth. One had been tapped, and iodine employed.

Mr. Hutchinson exhibited certain specimens illustrative of one form of Chronic Arthritis characterised by no outgrowths, but great destruction of cartilage. He thought this distinct from the ordinary kind. He first saw the patient after a return from Bath, where he had been treated for rheumatism. He had been its subject for years, and the attacks simulated those of acute gout, but never passed entirely off. He suffered from erysipelas in the leg, but got well from that, though the leg remained crippled. All the joints in his body grated more or less. After this he had a sudden relapse in his knee, which had not previously suffered much. He expected this would subside as the other attacks had done; but it did not, and by-and-by there were signs of pus being present, so Mr. Hutchinson removed the limb. The knee was in a state of acute inflammation, and there was no eburnation. The ankle-joint, which exhibited no trace of swelling, had its cartilage thinned, and was extremely congested. Every joint examined was like this, and he thought every joint in the man's body was similar. The patient was a steady man, and there was no reason given for the onset of the disease. His brothers were like him in condition; his sisters complained of rheumatic pains only. The condition did not appear to be hereditary.

Mr. Hutchinson also exhibited certain other specimens illustrative of the same condition in a subject sent from the workhouse. The subject had been sent for operation, and was a man aged 61, a Spaniard by birth, who had been in the house eight years. The joints of one hand did not seem to be affected, yet they crepitated. The other hand was contracted. Other parts were in a similar condition. The knee cartilages were almost entirely removed, and there was great blood-staining.

In reply to Mr. Croft, Mr. Hutchinson said that the urine of the former individual had been examined and only lithates found. He had much improved in health since the operation.

Mr. W. Adams considered that in the whole group of cases there was an absence of tendency to pus or anchylosis, though the knee-joint was full of grumous pus. There was no resemblance to the nodular form of rheumatic arthritis. In some there was a tendency to favour anchylosis.

Mr. Hutchinson said that even in the ordinary cases there were exceptions as to anchylosis and suppuration.

Dr. Edwards-Crisp, referring to the fact that the patient was a steady man, said the worst cases he had seen were in teetotalers.

Mr. Hutchinson said one of the affected brothers had been a hard drinker all his life.

Mr. Durham exhibited a portion of a Hydatid Tumour removed from the thigh of a woman, aged 41. Six years ago a swelling began in the left thigh, which after a time was fixed, though movable at first, and gradually increased in size. A kind of second swelling after a time became amalgamated with the former, and united to constitute an enormous mass, which was red, hard, and tender. Two small openings appeared, but no pus came away, only a kind of membrane, which was detected as a portion of a hydatid cyst. He tried to operate, but found the mass intimately connected with the vessels. He removed a portion, scooped away others, and left the rest. There had been much inflammation, but no true suppuration.

Mr. Cooper Forster exhibited Two Breasts removed that day from women aged 54 and 58 respectively. They had been supposed to be malignant, but, though of enormous size, he was not quite certain of that now till more carefully examined. There was no gland enlargement, and no indurated skin. (Referred to Morbid Growth Committee.)

Mr. Saunders exhibited for Mr. Stewart a specimen of Recurrent Sarcoma of the Breast, following an old mammary abscess. The tumour, which was cystic, was tapped, and afterwards removed. There was no gland infiltration. It returned again and again, finally assuming the characters of cancer. Exhaustion followed, and death. There was no post-mortem examination. (Referred to Morbid Growth Committee.)

Dr. Whipham showed a Kidney which, when recent, was studded over with small blood-red conical tumours. The patient had bronchitis, and died of that. The uterus and kidney seemed studded with small minute bloody extravasations, which were afterwards found to be cellular structures, but too late to examine the uterus. The tubules of the kidney were partly blocked with the growth, which seemed like that of lymphadenoma. In some parts the tube epithelium was gone, and the tubes and glomeruli compressed. Blood was extravasated into the new growth.

Mr. Arnott exhibited a portion of a Congenitally Enlarged Tongue. The child was 14 months old when seen; at that time the tongue was large, swollen, and red, the saliva dribbling from the mouth. It protruded about half an inch at birth, and at the time when first seen about an inch. It was very thick, and could not be retracted. Mr. Simon removed some parts of the tongue, but the child died. There were now a good many similar cases recorded. The extra growth was rarely muscular hypertrophy. It either depended on enlargement of the vessels, interstitial proliferation, or lymphatic enlargement. All were present here. The teeth were not well through, so they did not grasp the tongue. (Specimen referred.)

Mr. Hulke said Mr. Lawson had such a case.

Mr. Fairlie Clarke narrated the case of an infant 4 months old, who was born with its tongue at the tip of its chin. It diminished for a day or two, and then remained unchanged. Strapping was useless, as it would not stop on; so he removed a portion by the écraseur. It had sucked well. The operation interfered with sucking, but the child took food well and recovered. The tongue was now slightly clubbed and thickened at the end, but otherwise natural. All the tissues seemed hypertrophied.

CLINICAL SOCIETY OF LONDON.

Friday, March 8.

John Cooper Forster, Esq., Vice-President, in the Chair.

Dr. Buzzard showed a case of Unilateral Face-Atrophy, dating from an attack of chorea. A female, aged 25, applied to him at the National Hospital for Paralysis on account of fits, epileptic in character, which had troubled her for eleven years. She had been attacked with chorea when 6 years old, and again at 13; and, after this second attack, the right side of her face was observed to grow thin. The atrophy involved chiefly the frontal, malar, and inferior maxillary bones, together with the alar cartilage, the buccinator, masseter, and, in a less degree, the temporal muscles. The tongue was greatly wasted on the same side, and the palate was also involved. Cutaneous sensiblity was unaffected. She was liable to attacks of hemicrania affecting the right side of the head, which had commenced between the first and second attacks of chorea. There was some mental deficiency. A systolic mitral bruit was present. Dr. Buzzard was inclined to refer this rare and obscure case to the category of those described by Eulenberg under the title "progressive facial hemiatrophia," and suggested the possibility of embolism of a nerve-centre accounting for the peculiar disturbance of nutrition.

Mr. G. Lawson exhibited a little girl aged 15 months, with congenital hypertrophy of the tongue. The child was so stunted and ill-developed as to give the appearance of an infant about three months old. The fontanelles were as wide open as at birth. She showed no signs of any teeth, nor had she indicated any marks of intelligence. The tongue was a large fleshy mass, which not only filled the mouth, but a large portion lolled outwards between the lips. With pressure with the finger, the child would withdraw the tongue into the mouth; but it was almost immediately afterwards again protruded. Notwithstanding the size of the tongue, the child could suck well, and take the required amount of nourishment by the bottle. The father and mother were healthy, and had two other children, both of whom were healthy and intelligent. The child was born at the full period of utero-gestation. The mother attributed the defect to a strong impression she received when visiting the Crystal Palace, when in about the third month of pregnancy. She said she was terribly shocked by the appearance of some African figures with large protuberant lips.

Dr. Langdon Down thought the child of the cretinous type. He had seen such with large tongues and swellings in the neck.

Mr. Arnott referred to the case of a child with a large tongue which lived eighteen months. The new growth was mainly connective tissue.

Dr. Sanderson mentioned a similar case, where the lymphatics were enlarged.

Mr. Arnott could not satisfy himself of this in his case.

Dr. Hermann Weber read a paper on a "Case of Hyperpyrexia in Rheumatic Fever," successfully treated by cool baths and affusions. The patient was a youth aged 16, who had rheumatic fever (first attack) in August, 1871. The affection of the joints was well marked, but not excessive. The temperature of the body varied between the ninth and twelfth days of the disease from 101·6° to 102·2° Fahr.; the pulse between 98 and 118; the respirations between 20 and 24. The lungs were free, and there was only the slightest indication of a murmur with the first sound near the apex. The medicinal treatment consisted of three grains of quinine three times a day. On the morning of the thirteenth day great restlessness, vomiting, excessive micturition, involuntary motions, delirium, tendency to coma, and lividity of face supervened, simultaneously with a rise of temperature from 101·6° on the previous evening to 108·2°, of the frequency of pulse from 118 to 148, and that of respiration from 22 to 56. The patient was then placed in a bath of 71° Fahr.; and affusions of water of the same temperature were made. The mental condition and the appearance of the patient rapidly improved already during the first ten minutes, and at the termination of thirty minutes, when he was removed from the bath, the temperature in the cavity of the mouth was only 101·8°, and further sank during the next half-hour to 98·8°; while the patient fell asleep, and began to perspire freely. In the course of the same afternoon, the temperature again began to rise rapidly—*i.e.*, from 100·8° at 3 p.m. to 105·8° at 6.40 p.m. Pulse 148; respirations 38; slight delirium. The patient had then another bath with affusion, as in the morning, when the temperature further rose during the first five minutes of the bath to 106·2°, but afterwards fell rapidly, the mercury receding within twenty-five minutes (the duration of the bath) to 101°, and during the following hours to 98°. After the second bath, without any further medicinal or hydrotherapeutic treatment, the disease took the course of a usual mild form of rheumatic fever, leading to perfect recovery, leaving only a rather too long first sound. Dr. Weber repeated the view stated in a former communication to the Society: that the nature of these attacks was the same as in common heat-stroke or *insolatio*; and thought that the term hyperpyrexia, as employed by Dr. Wilson Fox, more appropriate than heat-stroke, which conveyed the idea of causation by external heat. Acknowledging that hyperpyrexia was an accident which could occur in all febrile diseases, he maintained that it occurred infinitely more often in rheumatic fever than in any other disease; and, regarding the peculiarities of rheumatic fever, was inclined to ascribe it to the tendency to endocarditis and fibrinous deposits existing in this disease. He suggested that it might have a similiar origin as chorea, and might possibly be due to minute embolism or to plugging of some small vessels in a certain portion of the nervous system, as the hypothetical centre of animal heat and chemical changes. As to prognosis and treatment, he pointed out that all cases formerly had a fatal termination when once the temperature had reached 108° Fahr.; but that the hydrotherapeutic plan, if early and energetically pursued, and with watchfulness as to the possibility of several attacks, gave great promise of a speedy cure, as shown by the two complicated and yet successful cases published by Dr. Wilson Fox, the one by Dr. Meding, and the one by the author. Dr. Hermann Weber alluded also to a difference in the action of the cold bath in this class of cases (hyperpyrexia) and in the pyrexia of typhoid or enteric fever, typhus, and other fevers of longer duration. While in the latter the baths, when given during the height of the disease, produce only a transitory reduction of temperature, which is followed sooner or later by a fresh rise, so that three, four, or even five baths may be required on each of several successive days, in the hyperpyrexias one or two baths may be sufficient entirely and finally to remove the complex of symptoms within less than twenty-four hours. He thought that this difference in the action of the plan in question pointed to a difference in the underlying pathological causes.

Dr. Greenhow gave the particulars of a case which ended unfavourably. The patient, a male, was admitted on the fourth day of an attack of rheumatic fever, his temperature being 101°. On the seventh day the patient was drowsy; temperature 105·2°; when he tried packing. Later the temperature was 109°. He brought the temperature down to 101·5°, when the man fell asleep. He awoke with a temperature of 107°. Unfortunately the treatment was not renewed, and he died in the morning.

Dr. Andrew asked what treatment had been followed before the rise in temperature. In some cases quinine did good, in some the reverse.

Dr. Greenhow thought alkalies were used, but was not sure.

Dr. Wilson Fox said hyperpyrexia occurred independently of any treatment, and the value of cold in such cases was verified by facts. In diseases running a course they did not use it; but certain phenomena demanded it, and they really must have recourse to it or let the patient die. All who reached a certain temperature died before this was used; almost all have recovered with its use, but they must watch the case for days. Hyperpyrexia might occur in any disease with ordinary pyrexia. The sooner the public knew this and the good effects of cooling the better.

Dr. Anstie related a case where hyperpyrexia occurred in a patient suffering from delirium tremens. The temperature was 109°, and the pulse irregular in every direction. There was nothing remarkable in any other way.

Dr. Southey thought stasis in the cerebrum might be the cause of high temperature. The arrest of cutaneous circulation might favour the removal of this.

Dr. A. P. Stewart remembered one of these cases in which

the blood was completely fluid after death. They differed remarkably in this as in other respects from ordinary cases of rheumatic fever, being from the beginning of a typhoid type. Had he been giving alkalies, he would have attributed the condition to that. He thought the treatment correct.

Dr. C. J. B. Williams thought such terminations due to some condition of the nervous system. A temperature over 104° killed leucocytes; above that temperature, therefore, no function can be carried on. He had a doubt as to the application of such a treatment in these cases, though it was useful in other fevers; but in rheumatic fever inflammation might be transferred by it from without to within. In University College Hospital there were only two fatal cases of rheumatic fever whilst he was there. He thought the iron treatment had something to do with their frequency.

Dr. Wilson Fox said that at University College they were looking out for the condition, and were trying iron in all the cases.

Dr. Weber said his treatment varied; he would not treat every case so, but only to remove an amount of heat which would otherwise prove fatal. He thought the fever shortened by it, and the deaths reduced in number.

MIDLAND MEDICAL SOCIETY.

Wednesday, February 14.

Mr. James F. West, President, in the Chair.

Dr. Carter, of Wolverhampton, was elected a Fellow.

Mr. West brought forward an example of Stricture of the Urethra and its Sequelæ. The bladder was immensely thickened, the ureters were greatly dilated, and the kidneys were enlarged, containing several abscesses, and their pelves were distended with pus.

Dr. Underhill exhibited a specimen of Chronic Ulcer of the Stomach. The history of the case was quite characteristic; death occurred from hæmorrhage. The base of the ulcer had become adherent to the pancreas, and the ulcerative process had opened up a large branch of the pancreatic artery, the open mouth of which could be seen.

Mr. Fueneaux Jordan read a paper entitled "A Couple of Operating Days." At the Queen's Hospital, on two recent occasions, he had performed the following operations:—Excision of the tongue, excision of the hip, operation for anal fistula, ligature of hæmorrhoids, application of the actual cautery in hip disease, removal of scirrhous tumour of the breast, reduction of an old sub-coracoid dislocation, removal of a sequestrum from the radius, employment of the "aspirator" in a large abscess of the abdomen. Mr. Jordan removed the tongue by a method somewhat different from those in ordinary use. He first divided the cheek, as advocated by Professor McLeod, then, seizing the root of the tongue, he passed a "handled" needle, carrying four pieces of ligature, twice under it. These drew back the chains of two écraseurs, one after the other; one was arranged to divide the tongue in front of the larynx, the other to separate it from the floor of the mouth. The instruments were worked together, and a clean bloodless surface was left. Through the uncut mouth the tongue cannot be efficiently removed; through an incision in front of the hyoid bone the tissues at the floor of the mouth are removed too freely. In 150 cases of hip-disease, treated by rest, pulley-extension, and the actual cautery, only three had required excision. A running commentary on the other operations concluded the paper.

NEW PREPARATIONS.

EXPRESSED MEAT-JUICE.

We have received from The Laboratory, No. 1, Great Winchester-street-buildings, a specimen of meat-juice extracted by pressure and solidified by gentle evaporation. It contains the juice of the muscular tissue *plus* much albuminous matter. Hence, when the extract is submitted to the action of boiling water, the albuminous matter coagulates, leaving the meat-juice in the form of a beautifully clear light-amber soup, from which the coagulated albumen can be strained off, if desired. The soup is remarkably clean-tasting, and of fine aroma, free from the stickiness which is the bane of much "concentrated soup," and of any burnt taste such as disfigures some extracts. We long for the introduction of meat-juice in this guise from Australia. It satisfies the eye and palate of the consumer, and the judgment of the dietetic and chemical philosopher.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 21:—

Bowkett, William David, 243, East India-road, E.
Clouting, John Revett, Shipdham, Norfolk.
Evans, John, Canton, Cardiff.
Utting, James, Hockering, Norfolk.
Welch, Samuel, 377, Hackney-road, E.

As an Assistant in Compounding and Dispensing Medicines—

Dear, James Edward, Huntingdon.

The following gentlemen also on the same day passed their first Professional examination:—

Greet, William Amdrose, University College.
Roberts, William, St. Bartholomew's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Davies, Enoch, M.R.C.S., L.S.A.—Medical Officer to the Llansamlet District of Neath Union.

Davies, Henry, M.R.C.S., L.S.A.—Medical Officer to the Llansamlet District of Neath Union.

Jack, Charles, M.D., C.M.—Surgeon to the Leeds Reformatory.

Kay, Thomas Valentine, L.R.C.P., L.R.C.S., L.M., &c.—Medical Officer to the Alton Collieries.

Myles, Thomas Williams, L.A.H. Ireland—Apothecary to the House of Industry Hospitals, Dublin.

Richards, Alfred, L.R.C.P.L., M.R.C.S.L.—Medical Officer to the Armley Workhouse, Bramley.

Simpson, Thomas Pemberton, M.D.—Medical Officer to the Portsea Island Union.

Vickery, George, M.D., M.C. Queen's University Ireland, L.M., L.A.H.I.—Medical Officer to the Kinsale Union.

NAVAL AND MILITARY APPOINTMENTS.

Surgeon W. J. Hamilton, M.D., has joined the *Tamar* on appointment, *vice* Staff Surgeon George Fletcher Banks, appointed to the *Duke of Wellington*, flagship, in Portsmouth Harbour, of Admiral Sir George Rodney Mundy, K.C.B.

Ashton, William, M.B., Assistant-Surgeon, from the Royal Artillery, to be Staff Surgeon, *vice* Staff Surgeon-Major Thomas Parr, who retires upon half-pay.

BIRTHS.

Fox.—On March 21, at 14, Harley-street, Cavendish-square, the wife of Tilbury Fox, M.D., of a son.

Graves.—On March 21, at 14, Chichester-road, Westbourne-square, W., the wife of F. G. Graves, M.D., of a son.

Lowe.—On March 17, at St. Mark's, Lincoln, the wife of Dr. G. M. Lowe, of a son.

Newton.—On March 20, at Alconbury-hill, Huntingdon, the wife of Lancelot Newton, M.R.C.S.E., of a daughter.

Orton.—On March 12, at Crouch-end, Hornsey, N., the wife of Dr. F. Orton, of a daughter.

Robinson.—On March 19, at 47, Lupus-street, St. George's-square, S.W., the wife of Frederick Robinson, M.D., Scots Fusilier Guards, of a daughter.

Woodgates.—On March 18, at 44, Southernhay, Exeter, the wife of Henry Woodgates, M.D., of a son.

MARRIAGES.

Ambrose—McMurdo.—On December 5, 1871, at the church of St. James's, Delhi, J. D. Ambrose, M.D., Assistant-Surgeon 58th Regiment, to Kathrine Emily, eldest daughter of Major-General W. M. S. McMurdo, C.B., commanding the Rawul Pindee Division.

Bentley—Whytehead.—On March 18, at Bilton, near Hull, John Eugene, only son of T. Amand Bentley, of The Schools, Shrewsbury, to Caroline, youngest daughter of Henry Yates Whytehead, M.D., late of Crayke, in the North Riding of Yorkshire.

Blackmore—Farr.—On January 3, at St. Peter's College Chapel, Adelaide, South Australia, Edwin Gordon Blackmore, Esq., Clerk Assistant and Serjeant-at-Arms, House of Assembly, fourth surviving son of the late Edward Blackmore, M.D., of Bath, to Eleanora Elizabeth, eldest daughter of Canon Farr, M.A., of Pembroke College, Cambridge, Head Master of the Collegiate School, Adelaide.

Hill—Prior.—On March 16, at St. Mark's, Cheltenham, Dallas Hill, B.A., eldest son of the late Rev. Alfred Bligh Hill, M.A., incumbent of St. Paul's, Tiverton, to Bessie, only daughter of the late Frederick James Prior, L.R.C.P., of North House, Tewkesbury.

Dukes—Bell.—On March 20, at Upper Norwood Chapel, Major Charles Dukes, M.D., of Wellesley-road, Croydon, to Maria, second daughter of James Bell, of Penybryn, Upper Norwood.

MACPHERSON—THOMSON.—On March 25, at 17, Alva-street, Edinburgh, Norman Macpherson, LL.D., Advocate, Professor of Scots Law in the University of Edinburgh, to Georgina Gordon, youngest daughter of the late William Thomson, M.D., Professor of the Practice of Medicine in the University of Glasgow.

SKIMMING—BOWRING.—On March 21, at St. Paul's Church, East Molesey, Robert Skimming, M.D., of Bridge House, East Molesey, to Fanny Charlotte, elder daughter of Edward Bowring, Esq., of Mole-bank, East Molesey.

SMITH—WEEKS.—On March 19, at St. Peter's, Maidstone, Frederick Walter Smith, L.R.C.P., of Blackman-street, to Ruth, youngest daughter of the late Wm. Weeks, Esq., of Maidstone.

DEATHS.

CHAPMAN, JANE, youngest daughter of Frederick Chapman, M.R.C.S., at Old Friars, Richmond-green, Surrey, on March 22, aged 5.

COLEMAN, THOMAS, F.R.C.S., at Eastbrook-place, Dover, on March 18, aged 81.

GEAMAN, JOSEPH, M.D., at the Manor House, Borrowash, Derby, on March 18, aged 45.

PATERSON, ROBERT HALDANE, L.R.C.S. Edin., L.S.A., of Brigg, Lincolnshire, at Buxton, suddenly, on March 22, in his 68th year.

PRICHARD, WILLIAM, M.D., at Partick, near Glasgow, on March 23, aged 51.

SHERRY.—At Claremont-square, Pentonville, N., the beloved wife of Dr. W. H. Sherry, after many months of suffering, on March 21.

SMITH, W. HENRY, M.D., eldest son of the late W. Henry Smith, D.C.L., barrister-at-law, at his residence, 15, Lancaster-road, Westbourne-park, W., on March 24, aged 32.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BECKETT HOSPITAL AND DISPENSARY, BARNSLEY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications and testimonials, on or before April 8, to Messrs. Newman and Sons, Solicitors, Barnsley.

BETHLEM HOSPITAL.—Two Resident Medical Students, who have recently obtained their diplomas to practise Medicine and Surgery. They will be permitted to reside in the Hospital for a term generally not exceeding six months. Applications and testimonials to be forwarded to Bridewell Hospital, Blackfriars, E.C., addressed to A. M. Jeaffreson, Esq., on or before April 6.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Candidates must be duly qualified. Applications and testimonials to Alexander Bottle, M.D., Secretary, on or before April 17.

CARMARTHEN COUNTY AND BOROUGH INFIRMARY.—House-Surgeon. Must be M.R.C.S. and L.S.A. A knowledge of the Welsh language is necessary. Applications to Mr. H. Howell, King-street, Carmarthen, on or before April 10. Election on the 12th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be M.R.C.S., and must have attended the practice of some Ophthalmic Institution for at least six months. Testimonials, etc., to be sent to the Secretary, on or before April 6.

ECHT, ABERDEENSHIRE.—Medical Officer to the Parish of Echt.

HOSPITAL FOR CONSUMPTION, BROMPTON.—Resident Clinical Assistant. Applications and testimonials to be sent on or before Saturday, March 30.

ROYAL SURREY COUNTY HOSPITAL.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before April 16.

ROYAL VETERINARY COLLEGE.—Professorship of Physiology, Therapeutics, and Pharmacy. Candidates must be M.R.C.V.S. Applications and testimonials to the Principal of the College, on or before April 4.

ST. MARYLEBONE GENERAL DISPENSARY.—Surgeon. Candidates must be M.R.C.S. Eng., and must attend personally on Wednesday, April 3 next, at eleven o'clock in the forenoon, with a written application. No canvassing allowed.

SALISBURY INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications and testimonials to be sent to the Secretary, on or before April 11.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Secretary. Candidates must be M.R.C.S. of London, Dublin, or Edinburgh, and possess a qualification in Medicine which will entitle to register. Candidates must attend the Infirmary on Monday, April 22, at one o'clock.

WESTMINSTER UNION.—Medical Officer to the Workhouse Infirmary; also a Dispenser. Particulars may be obtained at the Clerk's office, Poland-street, where applications are to be sent, not later than Monday, April 1.

WEST SUSSEX, EAST HANTS, AND CHICHESTER INFIRMARY AND DISPENSARY.—House-Surgeon. Candidates must be duly qualified. Testimonials etc. to be sent to Mr. E. W. Barton, on or before April 1.

DR. J. BURNEY YEO has been appointed Honorary Physician to the Westminster Memorial Refuge at Streatham.

AN International Medical Congress will be held at Vienna in 1873.

THE health of Paris is said to be very bad. The latest returns show that deaths from low fever and typhoid have greatly increased.

AN important meeting has been held at King's Lynn to found a convalescent home at Hunstanton, within a few miles of the Norfolk residence of the Prince and Princess of Wales.

CONVALESCENT homes at Mount Pleasant, near Norwich, and at Kessingland, near Lowestoft, have been established for the special benefit of patients leaving the Norfolk and Norwich Hospital.

STAFF SURGEON J. L. MUNDY, in Medical charge of the Indus Rest Camp, Meean Meer, was on the morning of the 24th ult. waylaid and assaulted by three privates of the 37th, one of whom was drunk. He lies at present in a very precarious state, having nearly lost his life from a succession of fainting fits, which came on after his bruised and bleeding body had been dragged through the camp and then deposited at his own door.

DEATH OF M. PICTET, OF GENEVA.—At the meeting of the Académie des Sciences on the 18th inst., M. Dumas announced the death of this eminent *savant*, who was elected a Corresponding Member in 1867. For the last twenty years he has especially been engaged in palæontological researches, and his "Traité de Palæontologie" is known far and wide. Possessed of a large fortune, he has always been munificent in his patronage of scientific enterprises, and his death has taken place just on the eve of the inauguration of a museum of natural history in the University of Geneva, erected at great cost, and the initiation of which is due to him.

MR. I. B. BROWN.—The following gentlemen have kindly come forward as contributors to a fund about being raised in behalf of Mr. Isaac Baker Brown, who is at this time suffering from severe bodily illness (paralysis) and great pecuniary distress. The hon. treasurers are Dr. Forbes Winslow and Dr. Charles Cogswell. Subscribers—Sir Wm. Fergusson, £3 3s.; Sir Wm. Gull, £2 2s.; Sir Ranald Martin, £2 2s.; Sir Henry Thompson, £5; Dr. Quain, £2 2s.; Mr. Erasmus Wilson, £2 2s.; Dr. Forbes Winslow, £5 5s.; Mr. Henry Smith, £2 2s.; Mr. Erichsen, £2 2s.; Dr. Sieveking, £2 2s.; Dr. Gream, £3 3s.; A Friend, £2 2s.; Dr. Routh, £3 3s.: Dr. Richardson, £2 2s.; Mr. Ernest Hart, £2 2s.; Dr. Semple, £1 1s.; Mr. Gascoyen, £2 2s.; Mr. Henry Spencer Smith, £2 2s.; Mr. E. B. Hicks, 10s. 6d.; Dr. Murchison, £1 1s.; Dr. C. Cogswell, £5; Mr. T. H. Hills, £2 2s.; Dr. James Wakley, £5 5s.; Mr. Thomas Wakley, £5 5s.; Dr. Waller Lewis, £1 1s.; Mr. J. F. Clarke, £2 2s.; Mr. Edwin Saunders, £1 1s.; Anonymous, £1 1s.; Mr. Critchett, £1 1s.; Dr. Tilbury Fox, £1 1s.; Mr. George Busk, £1 1s.; Sir James Paget, £2 2s.; Dr. Druitt, £1.

CHLORAL IN TRAUMATIC TETANUS.—Dr. Lavo relates three cases of severe traumatic tetanus which were successfully treated by means of chloral aided by the employment of the cold bath. The quantity of chloral used during the course of the first case amounted to 240 grammes, with twenty-five baths; in the second to 147 grammes, with fifteen baths; and in the third to 140 grammes, with eleven baths.—*Annali Universali di Med.*, February.

PRESERVATION OF BODIES BY CARBOLIC ACID.—Professor Guillery has submitted to the Belgian Academy of Medicine his simple and efficacious procedure for the preservation of bodies. Having taken a body from the Hospital, and placed it on one of the dissecting-room tables, he completely wrapped it in a cloth impregnated with a solution of 2 per cent. of carbolic acid. After an interval of four or five days he poured some of the solution on the body. All cadaveric smell was prevented, and, examined from time to time, the body was found to retain nearly the appearance it had at the time of death, the walls of the abdomen having retracted gradually. Six months after the experiment was commenced the body continued in the same state.—*Presse Belge*, March 10.

MALINGERING IN THE FRENCH ARMY.—M. Beaunis, narrating the fatal campaign of the East in the late war, after describing the dreadful suffering of the wounded during one of the retreats near Belfort, transported by tired-out mules on a bitter winter's night, adds—"Besides these unfortunates, there were others whom one cannot too severely stigmatise. These were cowardly wretches, who mutilated themselves to gain admission into the ambulance, and blew off a finger in order to escape the perils of the battle-field. These shameful manœuvres assumed such proportions that on January 17, of twenty-four wounded whom I dressed myself, nine were in this position. There could be no doubt on the matter, and I am certain that, of about 150 wounded received on that day, full forty of them were wretches of this description.—*Gaz. Méd.*, March 16.

CARBOLIC ACID CERATE.—Dr. Boehme recommends the following as an excellent formula:—℞. Adipis, ʒx., ceræ alb. ʒv., terebinth. Canad., acid. carbolic, ää. ʒj. Melt the lard and wax together, add the Canada balsam, and when the mass begins to cool stir in the carbolic acid. The addition of the balsam corrects the disagreeable odour of the acid and renders it slightly adhesive.—*New York Med. Record*, January 15.

A New and Painless Mode of Circumcision for the Jews.—A member of the Philadelphia Obstetrical Society, having witnessed the circumcision of a Jewish child, described the operation to his wife, who was in the early period of her pregnancy. A strong impression was made on her mind, and the event was the subject of constant thought for several days. Seven months afterwards she gave birth to a child whose glans penis was found exposed, while the retracted prepuce actually showed the yet granulating cicatrix of what looked like a very recent circumcision. This extraordinary circumstance, which is related in a first-class journal, under the head of "Birth-mark from Maternal Impressions," suggests a ready method by which our fellow-citizens of the Israelitish faith may do away with the sanguinary mode of performing circumcision in common use.—*Boston Journal*, from *Pacific Medical Journal*.

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon*.

Our report of Dr. Quain's second Lumleian Lecture is unavoidably postponed until next week.

L. A.—The former query shall be answered next week. Buttermilk is not at all in fashion in England for babies' food, because it is not an article of ordinary commerce, and not easy to procure in towns. In the country it is given to the pigs.

Inquirer.—Yes; Dr. Carnochan was the Health Officer of the port of New York, but was removed by the Governor, who has appointed in his place Dr. Vanderpool, a leading Physician.

C. E.—We could not think of recommending any book for the purpose. If you are ill, consult some respectable Practitioner in whom you have confidence; if not so ill as to require that, endeavour to lead a healthy, regular life—mentally as well as physically. Abandon reading books on fancied ailments, and dosing yourself with inappropriate remedies.

Public Health Bill.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—With reference to the first paragraph in Dr. Rogers' memorial as printed in your last, it seems to me that the existing salaries of Medical Officers form the most simple basis for estimating the remuneration derivable from their new duties as Health Officers. For instance, the Bill might contain a clause to the effect that under the Public Health Bill the Medical Officers, acting also in their new capacity, should receive a minimum remuneration equivalent to two-thirds of their former salary in consideration of the new and onerous duties undertaken. Thus a simple standard would be created, and the public ought not to grudge, for the protection of the whole community—from the "upper ten" down to the street Arab—a sum less by a third than the very inadequate remuneration now paid to Poor-law Surgeons for combating the diseases and mitigating the sufferings of our poor. I am, &c., A Provincial M. O.

Burton-on-Trent, March 25.

To Vaccination Officers.

Dr. Joyce presents his compliments to the Editor of the *Medical Times and Gazette*, and requests that the attention of vaccinators be drawn to the enclosed circular. It is hoped the form of the vaccination marks will lead to the discovery of the child's name, etc. Similar copies have been sent to the *Lancet* and *British Medical Journal*.

Rolvenden, March 25, 1872.

"Police-office, Tunbridge Wells, March 16, 1872.

"*Child Desertion.*

"Whereas some person who is unknown did, about seven o'clock in the evening of March 7, 1872, leave *a female child*, about 2 or 3 months old, on a doorstep of a house in Cambridge-street, Prospect-place, Tunbridge Wells, whereby it became chargeable to the Tunbridge Union. The child appears to be a little wasted, pale complexion, dark eyes, and rather long brown hair, and was wearing an old calico gown, embroidered front, with frills at neck and arms, two pieces of flannel, and wrapped in a piece of old green serge. The child appears to have been *vaccinated* on March 1, with five marks • • • on left arm, as on the 8th inst., the day after it was found, other children were vaccinated from it. *Surgeons* are kindly requested to communicate with Superintendent Embery respecting children vaccinated about that time, and not since brought for inspection. Registrars are also requested to search their vaccination returns.

"*Two Pounds Reward* will be given by the Guardians of the Tunbridge Union to any person giving such information to Superintendent Embery, Tunbridge Wells, as shall lead to the detection of the guilty party."

Dale v. Constable.

In his speech for the plaintiff in this case, Mr. Digby Seymour quoted the following doggerel verses from Mr. Constable's pamphlet. The devil, it is supposed, visits a prison in which a man is incarcerated for not vaccinating his child:—

"From his brimstone bed at dawn of day,
From his bed the devil is risen—
Risen, and dressed in his Sunday best,
To inspect a model prison.

"There were two or three persons swearing hard,
And he caught the word 'damnation';
The devil was bored, yet he sneered a sneer
Of lazy approbation.

"'Oh, oh!' said the devil, as he rubbed his paws,
'This is nuts, this is nuts,' said he;
'A poor man crushed by the strong hand
Of legal tyranny.'

"The devil laughed; he was far too pleased
To return to his place below;
He stayed and chuckled, and waved his tail
Gently to and fro."

Mr. Seymour then recited the following, said to be *impromptu*:—

"A beautiful child in Scarborough town
On her pillow of sickness lay,
And the shadows of death seemed settling down,
While her young life ebbed away.

"Then a Doctor stood by the infant's bed,
And in healing faith he spoke;
And the "Rose" that was drooping upraised its head,
And the clouds into sunshine broke.

"And did the child's father compensate,
Then, the good man's Medical art?
No; he blackened his name with a slanderous pen,
Till he almost broke his heart.

"And oh! how the devil was filled with glee,
How his imps into laughter burst;
For of all the devilish sights that be,
Ingratitude is the worst!"

Εἰς τὸν Πέτρον.

To a popular official.—A grateful effusion from the pen of Mr. Thomas Gushington, who, having been —— times plucked, is now M.R.C.S.E., etc., etc.

Who, when I was distress'd in mind
Consoled me, and was wondrous kind,
And said in him a friend I'd find?
Good Πέτρος.

Who, when from work I felt oppress'd,
To cheer me always did his best,
And like a father me caress'd?
Good Πέτρος.

Who, when I'd had my "little go,"
Said, "If you do your final so,
You need not fear but you'll go through"?
Good Πέτρος.

Who, when I lost my "second run,"
Sincerely grieved that I was "spun,"
And did not at me poke his fun?
Good Πέτρος.

Who, when I had made up my mind
To try again, was passing kind,
And gave me many a friendly "grind"?
Good Πέτρος.

Who oft, when my hard "grinds" were o'er
And my poor mind was troubled sore,
Would down my throat his sherry pour?
Good Πέτρος.

Who, when my dread "exam." was near,
And I did sadly quake and fear,
Gave me some "fizz" my heart to cheer?
Good Πέτρος.

Who, when I thought the prize was mine,
Called out my number—"forty-nine,"
Which made cold chills run down my spine?
Bad Πέτρος.(a)

Who, when I hung my lower lip,
And fear'd I'd made another slip,
Gave me a true Masonic grip?
Good Πέτρος.

Who, when my heart began to thump,
And in my throat I felt a lump,
Assured me I with joy might jump?
Good Πέτρος.

Who wished I would L.R.C.P.
Add to my name, that I might be
To kill and slay considered free?
Good Πέτρος.

*** This is genuine enough as a psychological study of a student under examination. We hope the distress some men suffer will be made up to them somehow. A little of the oil of human kindness in officials goes a great way in preventing mental friction.

Skin Diseases in Hospital Practice.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In reference to my letter, which recently appeared in the columns of your journal, respecting the statistics of Hospital patients affected with skin disease, I may direct attention to a pamphlet which I have to-day received from Dr. Louis A. Duhring, of Philadelphia, U.S., in which some attempt is made in the same direction. The pamphlet is the Report of the Dispensary for Skin Diseases in Philadelphia, and the fact established by it to which I attach the chief importance is that skin disease appears to be in America, as I have myself found it to be in this country, more common with males than with females. I think I am correct in stating that the contrary impression prevails with most persons, and, if the fact is one that will be supported by the general verdict of clinical observers, it is of some importance in the etiology of cutaneous disease. Thus, according to the Report before me, the number of patients treated during the year was 425; of these, 248 were males, and 177 females. Distributed in uncertain

(a) Hearing a great disturbance in the room, and suspecting Mr. Gushington as the cause, Πέτρος called out his number, which led him and others to suppose he was "spun."

(because unstated) proportion between the males and females were 64 children. Now, the statistics I framed of the patients attending at the Great Marlborough-street Hospital for Diseases of the Skin furnished a somewhat similar result. Thus, in the year 1870, of 2577 patients, 1172 were males, 958 were females, and 447 were children under 12 years of age. The year 1871 furnished a similar result; thus, of 3719 patients, 1696 were males, 1343 were females, and 680 were children under 12 years of age. It may be noticed that in each of the three separate results above given, although they severally are derived from quantities of very different magnitudes, there is but very little variation of the ratio, which may be simply put as four males to three females. Now, when we add to this the fact that females in this country at least, if not also in America, are more numerous than males, it becomes pretty obvious that skin disease is considerably commoner with the male than the female. Whether this difference be due to the greater exposure of the male to noxious influences I will not pretend to say. Lest anyone, however, might suppose that it is to be accounted for by the greater prevalence of syphilis among the males, it may, perhaps, be not altogether gratuitous for me to refer to a communication which I made some time since to the *British Medical Journal*, in which I stated, as the result of a careful tabulation of 1000 consecutive cases of cutaneous disease that had been treated by me, I had found only 4·5 (four decimal five) cases per cent. of cutaneous syphilis.

As regards the statistics of the occupations of patients furnished me by my American correspondent, I regret to say that, in my opinion, they are utterly valueless, inasmuch as they are not placed side by side with a census of the number of persons engaged in the several occupations as ascertained for the locality in which his dispensary is situated. I am, &c.,

9, Weymouth-street, Portland-place, March 19. Balmanno Squire.

COMMUNICATIONS have been received from—

Mr. Lawson Tait; Mr. J. H. Brunton; C. E.; Dr. Neild; Dr. Conradi; Dr. Murchison; Dr. Aldis; Dr. W. H. Broadbent; Mr. H. Aanott; Mr. J. Chatto; A Provincial M. O.; Mr. Mayor; Mr. Metcalfe Johnson; Dr. H. Osborn; Dr. Dougall; Mr. J. W. Hulke; Dr. Winslow; Dr. Joyce; Mr. Hannay; Dr. Playfair; Mr. Elder; Mr. Reeves; Dr. Brakenridge; L. A.; Dr. Moffatt; Mr. Mahomed; Dr. John Ward Cousins; Dr. John W. Ogle; Mr. George Lawson.

BOOKS RECEIVED—

On the Myoidema of Phthisis, by Lawson Tait, F.R.C.S.—Report of the Stafford County Lunatic Asylum—On the Physiology of Syphilitic Infection, by F. N. Otis, M.D.—Thomas on the Diseases of Women—Dauchell on Sewage—Statistical Abstract of the Health of the Navy.

PERIODICALS AND NEWSPAPERS RECEIVED—

Essex Herald, March 19—Edinburgh Courant, March 23—Melbourne Argus, January 26—Australian Medical Gazette, December—Australian Medical Journal, January—The Clinic—Yorkshire Gazette, March 23—Scarborough Express—American Journal of Insanity—Dublin Medical Journal, March—Glasgow Herald—The Scotsman—Bethnal-green Times—Family Friend—Children's Friend—Kelso Chronicle.

APPOINTMENTS FOR THE WEEK.

March 30. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

April 1. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London. No Meeting.

Royal Institution, 2 p.m. General Monthly Meeting.

2. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Pathological Society, 8 p.m. The following Specimens will be exhibited:—Dr. King, "Malformation of the Heart." Mr. Thomas Smith, "Aneurism of the Sinuses of Valsalva; Clubbed Fingers." Dr. Thorowgood, "Stricture of the Œsophagus." Dr. L. Down, "Abscess of the Liver, with Ulceration of the Colon." Mr. Sydney Jones, "Tumour weighing 4 lbs. removed from the Parotid Region." Dr. Crisp, "Abscesses in the Heart-wall of a Child 4 years of age;" "A New Form of Intestinal Obstruction." Mr. Croft, "Two Cases of Colloid Cancer of the Breast." Dr. Bristowe, "Effusion into the Corpus Striatum, and Gangrene of the Lower Extremities from Obstruction of the Aorta by a Clot;" "Carcinoma of the Descending Colon, causing Fatal Obstruction."

3. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Newman, "On a Case of Delivery *per Vias Naturales* in which the Cæsarian Section had formerly been performed." Dr. Barnes, "On Dysmenrrohœa, illustrated by Retention of Menstrual Fluid." And other Papers.

Royal Microscopical Society, 8 p.m. Meeting.

Society of Arts, 8 p.m. Meeting.

4. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; West London, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Mr. Victor de Méric, "On Discharges from the Male Urethra."

5. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 23, 1872.

BIRTHS.

Births of Boys, 1070; Girls, 1033; Total, 2103.
Average of 10 corresponding weeks, 1862-71, 2160·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	731	732	1463
Average of the ten years 1862-71	777·5	756·2	1533·7
Average corrected to increased population	...	...	1687
Deaths of people aged 80 and upwards	...	...	56

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	11	4	...	10	1	3	3	5
North ...	751668	7	15	8	3	27	1	6	...	1
Central ...	333887	3	6	...	...	12	2	...	...	2
East	638928	11	24	3	1	22	...	3	...	2
South... ...	966132	24	10	4	2	31	3	7	2	5
Total	3251804	48	66	19	6	102	7	19	5	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·661 in.
Mean temperature	38·9°
Highest point of thermometer	56·8°
Lowest point of thermometer	26·2°
Mean dew-point temperature	34·5°
General direction of wind	N.N.E.
Whole amount of rain in the week	1·00 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 23, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending March 23.	Deaths Registered during the week ending March 23.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2103	1463	56·8	26·2	38·9	3·83	1·00	2·54
Portsmouth ...	115455	12·1	81	50	55·2	26·6	39·9	4·39	0·14	0·36
Norwich	81105	10·9	38	43	59·0	26·5	38·2	3·44	0·74	1·88
Bristol	186428	39·8	115	79	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	51	33	52·7	28·6	38·3	3·50	0·73	1·85
Birmingham ...	350164	44·7	281	146	56·0	28·7	39·2	4·00	0·50	1·27
Leicester	99143	31·0	78	49	57·2	26·0	38·8	3·77	0·62	1·57
Nottingham ...	88225	44·2	47	51	62·0	27·8	41·0	5·00	0·46	1·17
Liverpool	499897	97·9	367	265	55·0	29·4	39·3	4·06	0·51	1·30
Manchester ...	352759	78·6	259	208	54·0	29·0	39·5	4·17	1·12	2·84
Salford	127923	24·7	73	71	53·5	27·0	39·1	3·95	0·90	2·29
Oldham	84004	20·2	71	43	...	...	...	...	...	...
Bradford	151720	23·0	120	69	57·2	29·6	39·1	3·95	0·31	0·79
Leeds	266564	12·4	162	151	59·0	30·0	41·2	5·11	0·32	0·81
Sheffield	247847	10·9	171	110	55·0	29·0	39·0	3·89	0·48	1·22
Hull	124976	35·1	67	56	...	...	...	...	...	...
Sunderland ...	100665	30·4	62	57	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	75	55	...	...	...	...	...	...
Edinburgh	205146	46·3	104	132	57·0	28·0	39·6	4·22	0·50	1·27
Glasgow	489136	94·8	407	295	...	...	...	...	...	...
Dublin	310565	31·9	211	187	57·0	26·0	40·0	4·44	0·79	2·01
Total of 21 Towns in United Kingd'm	7394345	34·0	4943	3613	62·0	26·0	39·4	4·11	0·61	1·55

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·66 in. The highest was 29·91 in. on Sunday morning, and the lowest 29·50 in. on Thursday at noon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

CONCERNING THE

PROPRIETY OF PRESCRIBING ALCOHOL FOR THE SICK,

AND ON THE MEDICAL DECLARATION RESPECTING ALCOHOL.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

DURING a febrile attack, and many other forms of illness, some persons do well without any alcohol at all. Others *must* take it, whether ill or well; but the principle long acted upon, of withholding stimulants *because* a patient has fever, or is suffering from some form of inflammation, cannot be sustained. This view is founded, not upon fact, but upon erroneous data and theoretical assumptions. It is not in accordance with the observations of intelligent persons upon themselves, nor with the experience of Medical Practitioners. It is distinctly contrary to the teaching which results from accurate observation of patients suffering from various forms of fever and inflammation.

But there is the strangest prejudice against giving wine, brandy, or other forms of alcohol in cases in which there is any tendency to bronchitis or acute affection of the lungs. The hypothesis that alcohol increases inflammation of the respiratory organs is still erroneously acted upon by some Practitioners. This, like many other speculations concerning the action of remedies, has been shown over and over again to be fallacious. The reasoning upon which the objections have been based, as well as the data relied upon, have been shown to be erroneous. Patients suffering from these affections often find the greatest relief from alcohol, and some are cured, and in a very short time, by this remedy only. Not a few have found out its usefulness for themselves; and some have unwisely and without advice resorted to too large and too frequent doses. Alcohol has been given with excellent results in cases of lung disease in cattle and many of the lower animals. Many veterinary Surgeons are fully conversant with the use of stimulants in the treatment of acute febrile pulmonary diseases in our domestic animals.

If the Practitioner withholds alcohol in the case of a person suffering from a febrile or inflammatory affection, who when in health takes habitually a liberal allowance of stimulant, he may do very serious harm. He may cause a slight attack of fever or internal inflammation to become a severe one. He will be acting upon a thoroughly incorrect theory, and may even, in certain cases, by such treatment increase the morbid process he desires to check.

In the management of acute disease it is therefore very necessary to inquire into the ordinary habits of the patient as regards taking alcohol; and although it is our duty to warn innocent persons, who are ignorant of the action of wine and spirits they have unconsciously been led to take, against the injurious effects of habitual indulgence in alcohol, a serious illness is not the proper time to attempt to induce them to try the experiment of completely abandoning the bad habit they have acquired.

Very much has been said and written concerning the impropriety of our prescribing alcohol to the sick, lest a taste for the remedy given during illness should be acquired and indulged after recovery has taken place. Some have gone so far as to assert that not in any case ought we to give alcohol, because by so doing we encourage the vice of spirit-drinking. But those who enunciate such a doctrine as this either maintain, contrary to the teaching of experience, that alcohol is of no use in illness, or they have never fairly considered the position the Medical Practitioner holds as the adviser of the sick, and his responsibility in discharging his Professional duties. Unless it can be proved that alcohol is absolutely useless in the treatment of disease—that is, unless the conclusions arrived at by thousands of intelligent persons, Medical and non-Medical, can be shown to be utterly groundless prejudices—it is simply the duty of the Practitioner to prescribe it; and if upon purely theoretical or upon moral grounds he refuses to order alcohol, he fails to discharge the duties of his office.

It will not be contested that, as Practitioners, our first consideration ought to be simply how to save or prolong life, without any reference whatever to the habits or morals of our patient, bad though they may be. Surely we should look upon him simply as a sick man; and, be his habits bad or good, it is equally our duty to place him under the circumstances most favourable to his recovery. Even if the measures we may consider it necessary to take for his present advantage should be ever so strongly condemned by the ardent advocates of temperance and abstention, they must nevertheless be carried out. Though it is our *duty*, as it is the duty of every rational being, be his calling what it may, to do what we can to encourage virtue and correct vicious habits, it must never be forgotten that our first *duty* as persons having care of the sick—that which takes precedence of every other duty whatever, whether attaching to us as citizens, philanthropists, or moralists—is to save, if we can do so, the life of our patient. To this object every other consideration, every other thought, must yield. And I hold that, if in any particular instance the duty of the Doctor seems to clash with his duty as a citizen, the first of his duties must be honestly discharged to the minutest detail, though to do this the last may have to be neglected altogether. For is not the number of earnest citizens and the number of moralists and philanthropists so very great in comparison with the number of Doctors as to render it certain that the interests of the citizen will be efficiently discharged, though many of us may be unable to attend to them?—while if our own special duties were to be neglected the health of the people might suffer, and in this way the vigour of the commonwealth might be undermined. If many Doctors were to devote themselves wholly and solely to their Profession, it is doubtful if the State would deteriorate, while it is not improbable that by such a course the public health would be improved, and, therefore, the happiness of the people enhanced.

To abolish vice from the world, to convert drunken into temperate members of society, are laudable objects for any man to endeavour to achieve; but, when treating the sick, our whole attention, our whole interest, our whole thought, must be concentrated upon their complaints and the adoption of means for relieving their sufferings. To us, in the earnest practice of our Profession, great social problems, it seems to me, should be as nothing—the individual sick man all in all. His mortal interests are for the moment paramount; his life is to be preserved if possible, but if this cannot be, he is to be kept alive to the last moment, though the means employed should be condemned by the most influential and most powerful of all associations that have ever been formed in modern times. We have been told that though we are Doctors we are not to forget that we are citizens; but is it not of the first importance for the interests of the sick that we should remember that we have the care, not of the people, but of individual organisms out of health? Our responsibility, though extending, it may be, but to a few individuals, is immense; and however important measures for promoting the welfare of the people may be, they are to us as nothing in comparison with the thorough performance of our Medical duties.

Further, I venture to offer the suggestion that in our collective capacity as a Profession we ought to discourage and condemn all attempts made by associations and societies to use Medical opinions for political purposes. The progress of science, of Medicine, of hygiene, will not be promoted by political alliances or political agitation. These subjects clearly are, and ought to be, by general consent removed from the sphere of party strife. It is an outrage that such questions as drunkenness, drainage, the supply of good water, the spread of fevers and contagious diseases, should be regarded in any sense as questions for political contention. The most advanced Liberal, surely, might do all in his power to aid the most thorough-going Conservative in doing everything to promote the people's health, without, in any sense, losing political caste. It is unfortunate that questions of Medicine and police should be dragged into the political arena at all. Legislation upon such matters, one would think, might be easily conducted, independently of party feeling. But at this very time we have the miserable spectacle of seats being threatened because a representative may have been led to form a certain opinion concerning the manner in which a loathsome disease may be most effectually prevented.

Such considerations, it seems to me, may, without impropriety, be adverted to even by a Doctor at a time like the present, when men's minds are not unexercised by the discussion of Utopian impossibilities and philosophical abstractions. The imagination of some seems to be at this moment absorbed in the contemplation of the happiness and contentment that *might* belong to a society in which the pernicious influences of alcohol were prevented by law. The weakness and impracticable character of a proposition which has been cleverly forced into undue notoriety are not unfrequently indicated by the

extravagant efforts and dexterous manœuvres made by warm partisans to obtain apparent support to their cause by getting the names of a number of persons occupying high Professional positions appended to a petition or a declaration. It is remarkable how, by a little ingenuity, an impossible, unpractical doctrine may be made to appear as if it had the sanction and very warm support of numerous persons who, individually, perhaps do not sympathise with it. So difficult is it for some to refuse to append a signature to a document already signed by many friends for whom the highest respect is entertained, that not a few sign simply because they see the names of others. Signing is contagious, and, if well managed, spreads rapidly. An enthusiastic advocate, who displays a little tact, will soon get multitudes of names to support his cause, though it be the compulsory regeneration of mankind, in spite of their determination not to be regenerated, or the proposal to purchase happiness and contentment for multitudes who have no desire whatever to profit by the generous designs of those who desire to make them good by restrictive laws.

Towards the close of the year 1871 a "Declaration respecting Alcohol" received the signatures of upwards of 250 members of the Medical Profession. Among those who signed were the Presidents of the Royal Colleges of Physicians and Surgeons, and most of those who stand at the head of our Profession at this time. This Declaration declares that "the *inconsiderate* prescription of large quantities of alcoholic liquids by Medical men for their patients has given rise in many instances to the formation of intemperate habits." It implies that the directions given by some Doctors to their patients regarding alcohol are so loose as to have been "interpreted as a sanction for excess," and concludes by the statement that those who signed "would gladly support any *wise legislation* which would tend to restrict within proper limits the use of alcoholic beverages, and gradually introduce habits of temperance."

Do the promoters of this Declaration really believe that drunkards are to be converted into temperate persons by laws, and that the people of England will be persuaded that habits of temperance or any other virtues are to be propagated by mere legal enactments? What is meant by the term "proper limits"? and who is to determine the quantity of alcohol each particular man, woman, and child is to take? The wording of the Declaration is vague and ill-considered, except as regards the statement about the inconsiderate prescription of alcohol by some of our own body, which is clear and precise to a fault. That members of a liberal Profession should make such an accusation against other members of the same Profession is extraordinary, and the only apology that could be offered by those who signed would be the knowledge on the part of each one of them of several instances of the inconsiderate prescription of alcohol by Medical men with whom they were actually acquainted. But in this case surely a private letter to the inconsiderate prescriber would have been more considerate as well as more efficacious than the circulation of a general charge and a vague condemnation, preferred by a number of distinguished men against a number of others, of whom some are not less distinguished, and, though proscribed by their brethren, are upon an equal footing. Is it conceivable that the course that has been actually adopted could have been taken by the members of any other profession in the world? Fancy the judges and most distinguished members of the bar signing a declaration informing the public that there were many inconsiderate legal practitioners; or a number of members of the House of Commons signing a document directing public attention to the inconsiderate acts of certain politicians who had obstructed wise legislation and had used inconsiderate expressions, which had been interpreted as a sanction for the performance of treasonable acts! Yet such declarations would surely not be more useless and absurd, or more thoroughly wrong in principle, than this unfortunate attack upon certain imaginary inconsiderate Doctors, who are supposed to have prescribed alcohol inconsiderately, to have sanctioned excess, and supported or excited habits of intemperance.

That so many highly respected members of our body should have been induced to come forward publicly to support the dicta of a league is to be lamented. It is one of many indications that in these days liberal minds and well-meaning persons sometimes inconsiderately lend themselves to the spread of tyrannical ideas and the diffusion of views with which they do not entirely sympathise, and which as individuals they would not support. How many of those who signed that Declaration could declare individually that they knew members of their own Profession who prescribed large quantities of alcohol *inconsiderately*, and that in their opinion this *inconsiderate* Medical prescription had given rise in many instances to the formation of intemperate habits? and yet everyone who signed ought not to hesitate in doing so.

This Declaration, with all those influential names attached, has been freely circulated with a pamphlet published for the National Temperance League, in which the following sentences and phrases occur upon one single page (page 7).—"Hence the support which the Church, or, at least, professing Christians *give to the liquor traffic*;" "*The drinking customs of society*;" "And with shame be it said, that this powerful and all-important stronghold, behind which the whole army of liquordom shelters itself, *has been built, armed, and manned* by the noble Profession of Medicine!" "The error that alcohol is a *necessary medicine*, a *useful beverage*, and at any rate a harmless luxury, is the great delusion for which *the Profession is accountable*, and which is filling our land with lamentation, and weeping, and great mourning;" "What reply can our honourable Profession make to the awful impeachment brought against it by every intelligent student of the temperance question, that its members as a body are the very mainstay of that traffic, and of those customs which have brought misery and ruin to so many households, and which constitute a perpetual 'carnival of sensuality, crime, and death'?"

Is this the sort of language for the members of a Profession like that of Medicine to encourage? Is it likely in any way to assist those who have to legislate? How many of us agree with it? How many of those who signed the Declaration really sanction such expressions or would use them? Nevertheless, the Declaration and the pamphlet have been widely circulated together, and both can be obtained of the "National Temperance League."(*a*)

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture III.

(*Continued from page* 337.)

The next animal for consideration is the large man-like ape from the islands of Borneo and Sumatra, commonly known as the orang-utan, or *Simia satyrus*, of which, however, it appears that there are two species or varieties, differing chiefly in size. As the diagnostic characters of these are not well ascertained, especially in the immature specimens which have mostly come under the anatomist's scalpel, it is not always certain to which of them the following remarks apply.

The visceral anatomy of the orang has been described from a young specimen by Camper,(a) and in an adult by Sandifort,(b) and also briefly by Owen(c) and by Huxley.(d) Preparations of all the more important parts are to be found in the College museum.

The mouth is more prognathous than that of the chimpanzee, though its opening is not so wide. The edges of the lips can be projected forwards in a remarkable manner, the lower lip having no frænum tying it to the gum, and the upper lip very little indication of one. There are no cheek-pouches.

The tongue is long and narrow, the sides being nearly parallel throughout. It is more pointed anteriorly than in the chim-

(a) "Truly the great two hundred and fifty against alcohol, themselves even, leave some room for question as to their meaning when they proclaim that 'it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by Medical men for their patients has given rise in many instances to the formation of intemperate habits.' Believed by and of whom? By the two hundred and fifty Doctors, of their Profession at large, or by society in general of it, including them? One would like to know who the believers are in order to be enabled to appraise the belief, and it would also please one to be informed whether or no the belief includes a confession, which the two hundred and fifty make for themselves. Did you, gentle reader, in the course of your experience, ever happen to meet with a victim of the bottle who dated his intemperance from taking port wine or brandy prescribed for him when convalescent, for example, from typhus fever?"—*Punch*, Feb. 3, 1872.

(a) "Naturgeschichte des Orang-utang," etc. German edition, 1791.

(b) "Ontleerkundige Beschryving van een volwassen Orang-oetan." (*Verhand. Natuur. Gesch. d. Nederl. overzeesch Bezittingen.*) 1840.

(c) *Proceedings Zool. Soc.*, November 9, 1830.

(d) Report of lectures in the *Medical Times and Gazette*, 1864. As has been already stated, the animals described as "orangs" by Tyson and by Traill belong to the species to which the name "chimpanzee" is now applied.

panzee, but not so much as in man. The hinder part is thick, and the dorsum much arched from side to side. The fossa between the tongue and epiglottis is deep, with a well-marked median frænum. In a specimen about half-grown, the entire length of the tongue is three inches and three-quarters; its greatest breadth, which is nearly equal throughout, one inch and a half; the frænum is attached one inch and a quarter behind the tip. The papillæ much resemble those of the human tongue, especially the circumvallate, which are about ten in number, and arranged rather irregularly in the form of a letter V, with the apex turned backwards.

It is commonly said that the orang has no uvula, but this statement requires qualification. There is, in reality, a very thick muscular uvula, forming a distinct prominence on both surfaces of the soft palate, but the margin of the velum is prolonged as a thin membrane beyond it, so that its free edge is evenly arched. The tonsils resemble those of man and the other allied forms. The ducts of the submaxillary glands open on distinct prominences on each side of the frænum of the tongue, a quarter of an inch apart, much as in man.

The stomach has much the same form as that of the chimpanzee, but the pyloric antrum is more dilated. Sandifort figures this part in the adult animal as separated from the main cavity by a narrow constriction, and as having very thick muscular walls. The same anatomist describes valvulæ conniventes in the jejunum,(e) but in no specimen which has been dissected in this country have they been found, and Camper expressly mentions their absence.(f)

The colon is proportionally larger and longer and more loosely attached than in man, and consequently more convoluted. It commences by a cæcum in the usual situation on the right iliac region, then ascends to the under surface of the liver, passes obliquely to the left across the lower border of the stomach; but before descending into the pelvis it makes a very large bend upwards, which lies superficial to the small intestines—an exaggeration, in fact, of the human sigmoid flexure. This disposition is figured by Sandifort in the adult animal. It resembles that of the human fœtus shortly before birth, and is similar to that generally found in the lower Old World monkeys.

What appears at first sight to be the globular apex of the cæcum is, as in man and the chimpanzee, really a dilatation or sacculus of the external tract of the colon. The real apex is drawn up very close to and behind the entrance of the ileum, and prolonged into a vermiform appendix of great length—about seven inches in a nearly adult specimen—which is coiled by its peritoneal attachment into a spiral of three turns. The transition from the dilated part of the cæcum into the constricted appendix is more gradual than in man and the chimpanzee, the opening of the latter into the former being infundiliform. It thus resembles a transient condition of the human cæcum at an earlier stage than does that of the chimpanzee.

The livers of different individuals of this species vary considerably. Fortunately, I have been able to examine a good series, otherwise it would be easy to fall into error in making a general description from only one or two specimens.

FIG. 10.

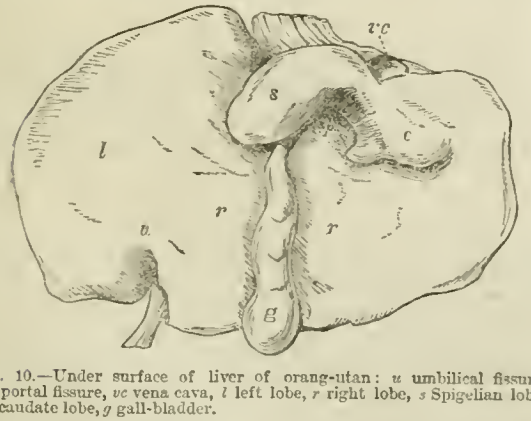

FIG. 10.—Under surface of liver of orang-utan: *u* umbilical fissure, *p* portal fissure, *vc* vena cava, *l* left lobe, *r* right lobe, *s* Spigelian lobe, *c* caudate lobe, *g* gall-bladder.

(e) "Het intestinum jejunum was onafgebroken beget met dwarse plooijen (*valvulæ conniventes*)."

(f) "In dem Zwölftinger und im Leerdarme waren gar keine Querfalten auch im übrigen dunnen Gedarme kein Runzeln, so dass der Orang hierin sehr vom Menschen verschieden ist. Doch die Zotten (*villi*) waren sehr sichtbar."—*Loc. cit.*, p. 166.

The one figured (Fig. 10) appears of the average form. As in the human liver, it is divided only into two principal lobes by the umbilical vein, and shows no trace of lateral fissures. The left lobe is expanded and flat, and very thin at the free edge, which is nearly semicircular; the right lobe is thicker in substance, and of an oblong form, with rounded corners. On the inferior surface the umbilical fissure is converted into a tunnel by the continuity of the hepatic substance of the left and right segments, a notch at the free border only remaining. The fossa of the vena cava completely separates the Spigelian from the right lobe, the vein being quite superficial. The Spigelian lobe has a tongue-shaped flattened prolongation, which in the natural position overhangs the portal fissure. The caudate lobe is a well-marked projection on the under surface of the right lobe, reaching to nearly half an inch of its free border, but not detached from it even at its apex, although its anterior border is indicated by a deep sinuous fissure, extending from the right end of the portal fissure. Posteriorly it subsides indistinguishably into the hinder edge of the right lobe. On its anterior or free border it has two well-marked projections.

In an adult female orang's liver, in the Museum (No. 804B), the caudate lobe is still more distinct, being marked from the right lobe by a fissure which extends all round it, except the base or left end, but which does not cut it completely free, except quite at the apex. Its anterior edge is nearly straight. On the other hand, in two other orangs' livers in the Museum stores, this lobe is quite obsolete, or certainly not more marked than in the human liver.

The other differences observed in these livers consist in the greater or less prolongation of the Spigelian lobe, and the extent of the bridge over the umbilical fissure. In all the vena cava is quite superficial.

The gall-bladder is long and narrow, and its fundus projects considerably beyond the edge of the liver, as in the chimpanzee. Sandifort noticed and figured the termination of the common bile-duct and the pancreatic ducts by distinct orifices upon one papilla in the duodenum.

Genus *Hylobates* (Illiger).—This group of animals comprises the gibbons, or long-armed apes of the Indo-Malayan region, and includes several distinct species, which, as far as is at present known, closely resemble each other in anatomical characters. It must be remarked, however, that very few individuals of this most interesting group have yet been dissected with the care necessary for satisfactory comparison with allied forms. The Museum contains preparations of the viscera of more than one species, and Hunter has left records of the dissection of two monkeys of the genus. Daubenton (Buffon, tome xiv., 1766) and Camper have also given observations and figures of some parts of the visceral anatomy of the gibbons.

The description of the mouth and tongue I take from a specimen of *Hylobates agilis* in the Museum. The lips appear less extensile than in the preceding species, and there is a rudimentary frænum below; there are no traces of cheek-pouches. The anterior half of the palate has a series of crescentic ridges on each side, with the concavity turned back, and with uneven notched edges, about eight in number, but not very regularly arranged. As noted by Hunter, there is a perfectly distinct uvula. The tongue narrows slightly from the base towards the apex, which is obtusely rounded. The circumvallate papillæ are small and very irregularly disposed, but, on the whole, assuming the ordinary V-shaped pattern; the fungiform papillæ are large and distinct, and pretty evenly distributed; the filiform papillæ are short and thick—they increase in size at the back part of the tongue, where they insensibly pass into a group of very large soft papillæ, with pointed apices on each side of the dorsal surface, quite at the root of the organ. The group of perpendicular linear fissures in the lateral edge of the tongue, immediately in front of the attachment of the palato-glossal fold, already noticed in the human tongue, is very distinct. Rather below the middle of the anterior edge of the frænum is a triangular fold of membrane, projecting freely forwards and terminating in a bifid apex. This is the sublingual process, which becomes so largely developed in some of the lower monkeys, and is formed by the union of the papillæ on which Wharton's ducts terminate in the chimpanzee, and, though in a more rudimentary condition, in man. In *Hylobates lar* the process is free for the space of a quarter of an inch, and it is about that width at the base. Its lateral edges are continued backwards into the ridge of mucous membrane which lies over the sublingual gland.

Hunter notes that "the stomach is similar to the human, but rather more globular." The specimen in the Museum (*Hylobates lar*, No. 535B*h*), prepared from an animal which

died in the Zoological Society's Gardens in 1870, is rather narrow in proportion to its length. The pyloric portion is less tubular than in the chimpanzee, and therefore approaching nearer to the form of the human stomach. The whole organ in its distended state is curved in its long diameter, being convex in front and concave behind.

As noted by Hunter, there are no valvulæ conniventes in the small intestines. "The cæcum is situated and adheres as in the human. The appendix is about three inches long, and

Fig. 11.

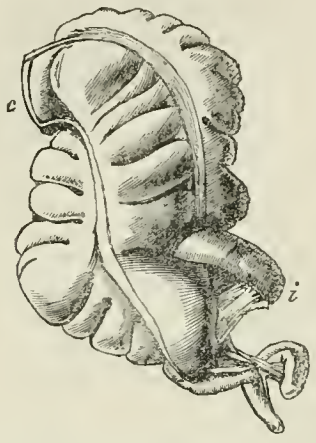

Fig. 11.—Cæcum of white-handed gibbon (*Hylobates lar*). *i* ileum, *c* colon.

half an inch in diameter." In the specimen No. 725E*a* in the Museum, from the same individual as the stomach above described, the appendix is somewhat longer and coiled upon itself. Though it commences very abruptly, there is an important difference in its situation from the forms previously described, for it springs from the extremity of a short conical cæcum. The whole retains more nearly the primitive form, the true apex not being drawn up to the neighbourhood of the ileo-cæcal valve. It thus represents a still earlier condition of the human embryonic cæcum than the orang, but hardly justifies Vrolik's expression that the "vermiform appendix is very small and almost rudimental in the gibbons."(g) One specimen, however, which I have examined of the "silvery gibbon" has the appendix only an inch and a half long and proportionately thick. In the animal examined by Daubenton it was five inches long and two and a half lines in diameter. It seems, therefore, that there are considerable differences in the structure of this part.

The colon is greatly sacculated, the usual three muscular bands being strongly marked. The descending colon, completely surrounded by peritoneum, and attached by a distinct mesocolon, is very different from that of the orang, being nearly straight, with scarcely any sigmoid flexure—at least in two specimens I have examined (*H. leuciscus* and *H. agilis*). Hunter notices the absence of sigmoid flexure in one specimen and its presence in another.

The great omentum is attached to the whole of the transverse colon.

Fig. 12.

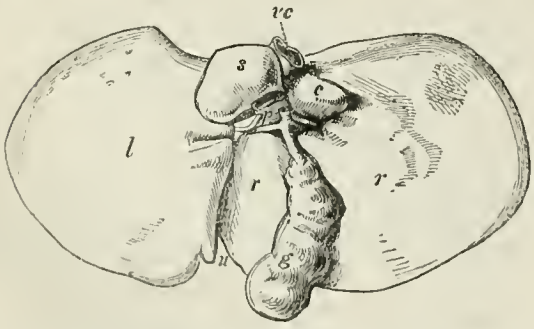

Fig. 12.—Under surface of liver of white-handed gibbon (*Hylobates lar*). The letters as before.

(g) Article "Quadrumana," "Cyclop. Anat. and Phys."

I only know the liver of the white-handed gibbon (*Hylobates lar*), of which the Museum contains two specimens. In general form and proportions of the principal parts they both show a great resemblance to the human liver—perhaps more than any of the preceding forms. The umbilical fissure is strongly marked at the free edge, and in both specimens is not bridged over on the inferior surface. There is no trace of lateral fissures. In one specimen the free edge is notched where the elongated narrow gall-bladder lies, but in the other it is not. The vena cava is superficial in both. In both the Spigelian lobe is prominent and rounded, much resembling its ordinary form in the human liver. In one there is scarcely a trace of a caudate lobe; in the other (Fig. 12) this forms a distinct but short conical prominence, about the size of a hazel-nut, with a free apex projecting to the right.

Before leaving the interesting family of *Simiidæ*, it will be well to take a short review of the more important points noted in the anatomy of their digestive organs, especially in relation to their resemblance to man. The gorilla unfortunately must be omitted in most parts of the summary. In all the tongue is much longer in proportion to its width; in the gibbons alone are the salivary papillæ united to form a distinct sublingual process, as in all lower apes, though in the chimpanzee the papillæ are much elongated though distinct, while in the orang they more nearly resemble the same parts in man. The uvula, with its azygous muscle, is developed in all, though in the orang it is masked by the production of the membranous edge of the velum palati. The stomach in all differs from that of man only in a greater elongation of the portion next to the pylorus and its more marked separation by a constriction from the rest of the cavity—a point on which there is, however, great individual variation in the human subject. They all differ markedly from man in the absence of valvulæ conniventes in the small intestines, unless the statements of Vrolik in the chimpanzee and of Sandifort in the orang (which have not been verified by subsequent observers) can be trusted. The colon is proportionately longer than in man (perhaps *Hylobates* excepted). They all agree with man, and differ from the lower apes in having the terminal portion of the cæcum constricted and lengthened into a vermiform appendage, and this appendage in the chimpanzee and the orang is, as in man, drawn up to the neighbourhood of the ileo-cæcal valve, though not so in the gibbons. The great omentum is attached by its posterior layer to the whole of the transverse colon, as in man, but in none of the lower monkeys. Finally, the liver, in all except the gorilla, resembles that of man, and differs from that of all the lower apes in having no lateral fissures subdividing the right and left segments; but it differs from that of man in the possession of a small caudate lobe, which, however, has been found to be wanting in some specimens of orangs, and also in some gibbons.

The abnormal form of the liver of the gorilla is one of the most interesting facts that has been brought to light by recent researches into this subject. It shows either that the modifications of the liver are not very characteristic in natural and related groups of animals, or that the gorilla ought not to occupy that position in the system which has hitherto generally been accorded to it.

DR. QUAIN'S LUMLEIAN LECTURES, AT THE ROYAL COLLEGE OF PHYSICIANS,

ON THE

DISEASES OF THE MUSCULAR WALLS OF THE HEART.

Lecture II.

Having discussed in his first lecture the nature and causes of enlargement of the heart, Dr. Quain next proceeded to consider the effects, the diagnosis, and the treatment of this condition.

Of the familiar effects of enlargement of the heart locally—on the organ itself and on the surrounding viscera—it was unnecessary to dwell; the general effects of enlargement, on the other hand, were deserving of careful study. These the lecturer accordingly described at considerable length, contrasting the effects of the four varieties which he had enumerated in his previous lecture—viz., enlargement from increased development of muscle, connective tissue, and fat respectively, and enlargement by dilatation. The general effects of *uncomplicated muscular hypertrophy* of the heart are in the first place beneficial—there is an increase of power created to meet an

increase of resistance, and from the even balance of these nothing but benefit to the system can result. Yet at times the hypertrophy seems to be excessive in its effects. Thus, in aortic valvular disease, when the left ventricular walls have become sufficiently thickened to overcome the obstruction, the aortic tension is normal and the circulation perfect; but in a case of contraction of the minute and distant vessels, as in Bright's disease, where no obstruction in the large arteries intervenes to break the force of the hypertrophied left ventricle, the column of blood between the heart and the capillaries exerts an undue lateral pressure; and if this, from any local cause, is excessive, the well-known symptoms of hypertrophy of the heart result, such as flushings, sensations of fulness and throbbing in the head, glandular congestions, and exudation of serum and of blood. It is in this case also that, should a small intermediate vessel be diseased, it is especially liable to give way, and hæmorrhage results, as in the brain. Again, the increase of power may be misdirected so far in a retrograde direction, as in hypertrophy of the left ventricle from mitral regurgitation, where an increased quantity of blood must be driven back at each systole on the left auricle and lungs.

True hypertrophy may also be injurious from being imperfect, and the temporary occurrence of failure in this direction is not unusual; either from accident, emotion, or a passing local disorder of circulation the balance is suddenly disturbed, and care and time alone will restore it.

The effects of a heart enlarged by an increased development of connective tissue are those of an organ of increased action but diminished power, the muscular element, although it is also in greater volume, being restricted in function by the new connective tissue by which it is surrounded. Such a heart, however powerful it may seem, is in its results weak; yet it is perhaps less likely to dilate than the degenerated heart.

The heart, with the course of its muscular fibres distorted by interstitial fatty growth, produces effects on the system which might be briefly described as those of circulatory weakness, to which might be added a tendency to angina pectoris and sudden death. These three forms of hypertrophy of the heart occur much less frequently alone than combined with each other and with the condition of dilatation—a complication which results in blood stasis in the small vessels, and passive congestion, with its consequences, varying with the side of the heart affected, and constituting the long line of symptoms so distressingly present in chronic cardiac disease.

Such are briefly the general effects of enlargement of the heart: its *special* relations were next considered to certain diseased conditions of the brain, the lungs, and the kidneys.

The question of the connexion between hypertrophy of the heart and the occurrence of *cerebral hæmorrhage* has long been a source of difference of opinion among pathologists. After giving a brief *résumé* of the history of the discussion at various times between Lancisi, Baglivi, Corvisart, Andral, and Cruveilhier in favour of the connexion, and Kellie, Abercrombie, and Rochoux against it, Dr. Quain quoted the valuable conclusions of Dr. Burrows of the very close relation between apoplexy and diseases of the heart, and adduced abundant statistical facts of his own in support of it. Analysing sixty-five cases of sanguineous apoplexy which he had himself collected, and in which the condition of the heart was carefully noted, Dr. Quain found that in these the heart was enlarged forty-three times—thirty-one times without and twelve times with valvular disease. The particular cavity affected, and the presence or absence of disease of the cerebral vessels, were also carefully observed in every case; and from the results thus obtained Dr. Quain was enabled to arrive at the following, amongst other important conclusions:—That, in the sixty-five cases of cerebral hæmorrhage, the left ventricle of the heart was hypertrophied thirty-nine times, more frequently without than with valvular disease, and that enlarged heart more frequently accompanies cerebral hæmorrhage than does disease of the vessels of the brain.

With regard to the condition of the heart in *phthisis*, Dr. Quain made another series of important investigations, and found, by an analysis of the records of 171 fatal cases of phthisis in which the heart was accurately weighed, that the heart in this disease is small in more than half the number of cases, especially in females, and enlarged in 25 per cent. of males, and in but 7 per cent. of females; that hypertrophy of the heart tends to prolong life in phthisis, especially in the first and third years of the complaint; and that hypertrophy of the heart seems to have no effect in promoting hæmoptysis. In this series of cases there occurred two extraordinarily small hearts, weighing but 2 oz., and 1 oz. 14 dr. respectively.

Lastly, the effect of an enlarged heart in producing disease of the *kidneys* was considered, and the opinions of Dr. Chambers and of Professor Traube alluded to. In respect to the view adopted by the latter, that the condition of the kidneys under these circumstances is one of congestion only, Dr. Quain showed that he had himself expressed an exactly similar opinion in a paper which he wrote nearly five-and-twenty years ago; while in regard to the further teaching of Traube, that it is rare to find true chronic Bright's disease developed out of this congested renal condition, Dr. Quain maintained, as he did at that early date, that protracted renal congestion gives rise to renal alterations, both tubular and intertubular, and is thus a direct cause of chronic disease of the kidney.

Passing on next to the *diagnosis* of enlargement of the heart, Dr. Quain pointed out that, assuming the existence of increased size of the organ, the two important points to be determined were the exact nature of the enlargement and the capability or non-capability of the heart to perform its functions. In determining the exact nature of the enlargement, the textural condition of hypertrophy of the walls and the physical condition of dilatation of the cavities are—the lecturer said—to be kept distinctly apart in the diagnosis, although they are so intimately blended, for on each of these factors there depend corresponding signs and symptoms. First, there is no difficulty in diagnosing simple cardiac hypertrophy. Of the existence of the second variety, in which there is an increase of connective tissue, we cannot in any particular case be so certain—at least, as yet—for our clinical experience cannot here be said to be on a level with our pathological knowledge which has been so recently acquired. Energetic restricted action, with feeble and inefficient results, would however, as had been already shown, characterise this form of hypertrophy—*i.e.*, as peculiar physical signs, a strong heaving impulse and dulness of the first sound, and, in the system generally, abundant symptoms of circulatory weakness. Of this character were the phenomena in a case of Dr. Hyde Salter's which seems to belong to this category. "And when," said Dr. Quain, "in addition to this peculiar combination of symptoms, we meet with a history of some previous rheumatic or inflammatory affection of the heart, with the absence of signs of pericarditis and endocarditis, or with a history showing that the patient has, as Niemeyer puts it, 'led the life of a glutton,' in such a case we should consider whether we have not to deal with connective-tissue hypertrophy of the heart." The third form of cardiac hypertrophy being an hypertrophy with weakness, is at once diagnosed from the two previously described by its local phenomena, which are striking expressions of that condition. The diagnosis of this form, therefore, requires no further consideration. It is otherwise with dilatation. This, as a mere physical condition of the heart, is to be diagnosed by a few physical signs—namely, a peculiar shape of percussion dulness, and short, clear, and sharp cardiac sounds, with, in some cases, a systolic murmur.

Dilatation is, however, in nearly every instance combined with degeneration of the walls; and so (said Dr. Quain) the physical signs of dilatation come to be confounded with those of cardiac weakness, and not only the local signs but the symptoms also, such as congestions and dropsy, which, although called symptoms of dilatation, are really the effects and symptoms of degenerated walls. With these considerations steadily in view, we are able to appreciate the importance of making out distinctly the second point in the diagnosis—of determining the textural soundness of the cardiac walls rather than the simple signs of their physical condition. Dr. Quain then discussed the various means of obtaining this information, and he especially directed the attention of his audience to the importance of the sphygmograph and cardiograph as instruments of research in this direction.

In introducing the subject of *treatment* of enlargement of the heart, the lecturer made some pointed remarks on treatment in general, and especially on the application of therapeutical agents to the treatment of cardiac diseases. Reviewing the plan followed by Valsalva, and that of more modern Physicians with whom stimulation is a favourite weapon, Dr. Quain remarked how readily one might complain of want of philosophy in a science which could countenance the entertainment of opinions so extremely diverse. Yet, he proceeded to show, this is but the result of our ignorance of pathology on the one hand, and of the action of medicine on the other; and, as this ignorance becomes replaced by knowledge (for example, of the nature of phthisis and heart disease, and the action of digitalis), our faith in the value of therapeutical treatment would, as it certainly does, steadily increase. "For myself," said Dr. Quain, "my lack of faith is not in physic, but in my own want of discrimination in its use. I find the uncertainty,

not in the action of medicines, but in the propriety of their application." So in the case of enlargement of the heart; as we arrive at an exact notion of the several varieties of the condition, we become more and more convinced that while the system of Valsalva is the treatment most suitable for one, a system of the very opposite character would be best adopted in another. Coming to consider more particularly the treatment of the individual forms of enlargement of the heart, Dr. Quain pointed out that in the first form, where there is a simple increase of contractile tissue, the primary object of treatment is on the one hand to subdue abnormally excited action, and on the other to prevent decay and degeneration of the cardiac walls. The causes of the condition are to be removed, as far as possible, whether physical or moral, and aconite and allied drugs, which seem to have a controlling effect on the heart, intelligently administered. The connective-tissue form of hypertrophy, on the other hand, is most likely to be benefited by alteratives and counter-irritants, such as mercury, iodide of potassium, alkalies, and cupping. Of the medicinal and dietetic treatment of a heart enlarged by accumulation of fat on and within it, it is unnecessary to speak. The various conditions included under the term "dilatation" will demand (said Dr. Quain) each its own treatment. First, there is a dilated cavity, an increased amount of blood, and passive oppression of the muscular walls; for the relief of these the most evident means is the abstraction of fluid directly by bleeding (which is sometimes almost essential), and less directly by withholding liquids as much as possible, and by purging and stimulating the secretions (a plan which is always practicable and of enormous remedial value). This step in the treatment also counteracts the second condition in dilatation—namely, diseased blood. The third condition may then be remedied—the textural change, degeneration in the cardiac walls—and that by the so-called cardiac tonics, whether these means are hygienic, dietetic, or medicinal. Dr. Quain here entered at some length into the action of iron and digitalis, of both of which it might be said that, while they are of enormous value, they are by no means easily managed. Above all, they are never to be given to strengthen the cardiac walls until the heart has been relieved by some means of part of its oppressive and distending contents by one of the plans just mentioned. Of the value of this advice Dr. Quain adduced more than one example from his own practice.

In conclusion, two practical points were noted as worthy of being kept in mind by the Physician attending a case of heart disease. One was the great relief to be given by acupuncture of anasarcous parts, and the other the importance of never failing to examine the urine regularly and with extreme care for the presence of albumen.

ORIGINAL COMMUNICATIONS.

ON THE

RADICAL CURE OF INGUINAL HERNIA.

By J. FAYRER, M.D., C.S.I.,

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SINCE my last report on this subject I have recorded fifty cases of operation for the radical cure of hernia, an abstract of which is appended. I have no reason, after further observations and experience, to doubt the efficacy of this operation; and though I have not had many opportunities of noting its results after a period of years, yet in a few I have been glad to find that success continued permanent. In some, where it failed, it evidently did so from want of the simplest care or the observance of the most ordinary precautions on the part of the patient in protecting a part which must, at the best, be regarded as weaker than natural. At present I know of two cases operated on years ago, who, I have reason to believe, remain free from the protrusion.

The simplicity of the operation, if properly performed, and the comparatively small amount of suffering it entails, are matters of importance, and it certainly, also, is comparatively free from danger. In no case have I known it prove directly fatal, as from peritonitis. Two deaths are recorded among the fifty cases—one from erysipelas, the other from tetanus. These were just as liable to have followed any other Surgical operation, and cannot be regarded as peculiarly the consequence of this.

I would remark that the object of the operation is not merely to bring the margins of the inguinal canal into apposition, but to close or occlude the internal abdominal ring, thus restraining the contents of the abdomen altogether within that cavity. This is effected by the inflammatory products and tissue-changes induced by the presence of a plug pressed tightly, by the tension of the ligatures, against the apex of the canal and the internal ring. Unless this is effected, the hernia will again protrude—if not immediately, as soon as absorption of the new products has taken place—should they not, in cicatrising, have closed the opening; and even if perfect closure should not occur, the opening may be so much limited as to greatly diminish the tendency to hernia. And if not perfect, at all events considerable relief may be obtained, and the protrusion rendered more controllable. I had an excellent opportunity of seeing that the internal opening may be thus completely closed, in the case of a young French sailor who had been operated on, and who was killed some time after by a fall from a house. The preparation is now in the Medical College Museum, and it well illustrates the complete closure of the internal ring.

Of the fifty cases here recorded, 31 were of Americans, Eurasians, or Europeans; 19 of natives. The following results were obtained:—Europeans: Doubtful, 1; relieved, 2; failed, 4 (one being direct inguinal hernia, one being femoral hernia); died of tetanus, 1—total, 8. In one operated on in 1866 the hernia came down again in 1869. Of the natives 15 were successful, 3 unsuccessful; one died of erysipelas. It is to be noted that in four cases the operation for strangulated hernia had to be performed before that of the radical cure. One case of femoral hernia which proved unsuccessful, and one of direct hernia which was doubtful, might both fairly be excluded, for I do not think the operation well adapted for these forms of hernia. In one case of direct hernia, in an American, the operation failed. In some cases the operation having failed, was repeated, and with success.

Case 1.—M., an English sailor, aged 35, was admitted on April 12, 1865, with left oblique inguinal hernia. Operated on for radical cure on April 17. The plug was removed on the 19th, and he was discharged cured on June 11, 1865.

Case 2.—B. F., an English seaman, aged 45, was admitted on March 27, 1865, with left direct inguinal hernia. He was operated on for radical cure on May 10, 1865. The plug was removed on the 14th, and he was discharged cured on June 16, 1865. The hernia was large, and the rings probably dragged together—not anatomically direct hernia. The permanency of the cure in this case is very doubtful.

Case 3.—D. L., aged 35, a Maltese, admitted on May 16, 1865, with right oblique inguino-scrotal hernia. He was operated on for the radical cure on May 22. The plug was removed on the 26th, and he was discharged cured on July 24, 1865.

Case 4.—Ballacksing, a Hindoo, aged 50, was admitted on July 12, 1865, with right oblique inguino-scrotal hernia. Came in with symptoms of strangulation, which were relieved by ice and taxis. He was afterwards operated on for radical cure on the 18th. The plug was removed on the 21st, and he was discharged cured on August 28, 1865.

Case 5.—Nujeeboolah, a Mahomedan kholapee, aged 32, was admitted on September 15, 1865, with right oblique inguino-scrotal hernia of five years' standing. Operated on for radical cure on the 20th. The plug was removed on the 23rd, and he was discharged cured on October 18, 1865.

Case 6.—Soroop Chunder, a Hindoo coolie, aged 40, was admitted on October 11, 1865, with right oblique inguino-scrotal hernia of three months' standing. Operated on for the radical cure on October 16. The plug was removed on the 20th. The operation proved unsuccessful, and he was discharged on November 6, 1865.

Case 7.—E. B., an English sailor, aged 33, was admitted on October 30, 1865, with left oblique inguino-scrotal hernia. Came in with symptoms of strangulation, which were relieved by ice and taxis, and then operated on for the radical cure on November 16. The plug was removed on the 20th, and he was discharged only partially cured (the hernia protruded, but was much more controllable than before the operation) on January 27, 1866.

Case 8.—B. J., a French sailor, aged 20, was admitted on December 28, 1865, with right oblique inguino-scrotal hernia. Operated on for radical cure on January 1, 1866. The plug was removed four days after the operation, and he was discharged cured on January 21, 1866. Four months after, he came in with dislocation of right femur and injury of the head, from which he died. On post-mortem examination the

internal ring was found to be entirely occluded, but the invagination had descended.

Case 9.—Gopàl, Hindoo water-bearer, aged 36, was admitted on January 5, 1866, with right oblique inguino-scrotal hernia. Operated on for radical cure on January 6, 1866. The plug was removed on January 9, and he was discharged on March 16, 1866; but the operation proved unsuccessful.

Case 10.—Deerjotolla, a Mahomedan, aged 40, was admitted on January 8, 1866, with right oblique inguino-scrotal hernia. Operated on for radical cure on January 14. The plug was removed on January 18, and he was discharged cured on February 14, 1866.

Case 11.—Nagir Mahomed, a Mahomedan, was admitted on April 20, 1866, with right oblique inguinal hernia of several months' standing. He was operated on for strangulated hernia on April 20. The constriction was found at the external ring. The sac was not opened. A month later, when the wound was completely healed, the operation for radical cure was performed (on May 10, 1866). The plug was removed on the 14th, and he was discharged cured on July 25, 1866.

Case 12.—Bashooly Mookujee, a Hindoo sircar, aged 28, was admitted on June 17, 1865, with right oblique inguino-scrotal hernia of four years' duration. Operation for strangulation on the 17th. The sac was not opened; the constriction was found at the external ring. After the wound had healed he was operated on for radical cure on July 2. The plug was removed on the 6th, and he was discharged cured on July 29, 1865.

Case 13.—C. R., an East Indian, aged 23, was admitted on July 17, 1866, with left oblique inguino-scrotal hernia. Operated on for radical cure on July 22. The plug was removed on the 26th, and he was discharged cured on August 14, 1866.

Case 14.—J. D., an English engineer, aged 32, was admitted on August 8, 1866, with left oblique inguino-scrotal hernia. He had been operated on for strangulation in 1859. The sac was not opened. The operation for radical cure was performed on August 24, and the plug was removed on the 27th. The operation failed, and the patient was discharged on December 27, 1866.

Case 15.—Dwarkaunouth, a Hindoo oilman, aged 28, was admitted on February 22, 1867, with right oblique inguino-scrotal hernia. Operated on for radical cure on the 25th, and the plug was removed on the 28th. The operation proved unsuccessful, and he was discharged on April 14, 1867.

Case 16.—Ram Coomar, a Hindoo servant, aged 30, was admitted on February 27, 1867, with left oblique inguino-scrotal hernia. Operated on for radical cure on March 5, 1867. The plug was removed on the 8th, and he died from erysipelas of the body generally on March 28, 1867.

Case 17.—M. G., an English sailor, aged 41, was admitted on March 4, 1867, with right oblique inguinal hernia. Operation for radical cure on March 15, and the plug removed on the 19th. The operation proved unsuccessful, and he was discharged on April 14, 1867.

Case 18.—H. C., an English sailor, was admitted on May 14, 1867, with left oblique inguino-scrotal hernia. Operated on for radical cure on May 15. The plug was removed on the 19th, and he was discharged cured on April 22, 1867.

Case 19.—Gour Keramanil, a Hindoo weaver, aged 41, was admitted on June 2, 1867, with right oblique inguino-scrotal hernia. He was operated on before for radical cure on December 29, 1866, which proved unsuccessful. He then underwent a second operation on June 15. The plug was removed on the 19th, and he was discharged cured on July 14, 1867.

Case 20.—W. S., an English sailor, aged 32, was admitted on January 16, 1867, with right oblique inguinal hernia. He was operated on for radical cure on January 21. The plug was removed on the 25th, and he was discharged cured on July 4. In 1869 the hernia returned after great physical exertion. During the intervening time he had led an active life as a railway *employé*.

Case 21.—Mahomed Apoodoollah, a Mahomedan steward, aged 22, was admitted on September 1, 1867, for right oblique inguinal hernia, and was operated on for radical cure on September 3, 1867. The plug was removed on September 7, and he was discharged cured on October 24, 1867.

Case 22.—D. C., an Englishman, aged 32, was admitted on September 2, 1867, for right oblique inguino-scrotal hernia, and was operated on for the radical cure on November 23, 1867. The plug was removed on November 26, and he was discharged cured February 7, 1868.

Case 23.—W. W., a Scotch sailor, aged 52, was admitted on January 24, 1868, with right oblique inguinal hernia. He was operated on for radical cure on January 27. The plug was removed on the 31st, and he was discharged cured on March 23, 1868.

Case 24.—T. P. an American, aged 22, was admitted on January 22, 1868, for left direct inguinal hernia, and was operated on for radical cure on February 18, 1868. The plug was removed on February 22, and he was discharged on April 16, 1868; but the operation proved unsuccessful.

Case 25.—J. W., an English sailor, aged 48, was admitted on February 14, 1868, with left oblique inguinal hernia. He was operated on for radical cure on February 25. The plug was removed on the 29th, and he was discharged cured on April 6, 1868.

Case 26.—J. C., an English fireman, aged 32, was admitted on February 14, 1868, with right oblique inguino-scrotal hernia. He was operated on for radical cure on March 18. The plug was removed on the 23rd, and he was discharged cured on May 23, 1868.

Case 27.—H. M., an English sailor, aged 20, was admitted on March 18, with right oblique inguino-scrotal hernia. He was operated on for radical cure on May 13. The plug was removed on the 16th, and he was discharged cured on June 22, 1868. He had been operated on once before in the General Hospital.

Case 28.—J. P. N., an Irish clerk, aged 40, was admitted on April 18, 1868, with right femoral hernia. He was operated on for radical cure on May 21, and the plug was removed on the 26th. The operation proved unsuccessful, and he was discharged on July 18, 1868.

Case 29.—H. W., an English cook, aged 28, was admitted on May 29, 1868, with left inguino-scrotal hernia, and was operated on for radical cure on the 30th. The plug was removed on June 4, and he was discharged cured on August 23, 1868.

Case 30.—J. M., a Scotch seaman, aged 39, was admitted on May 29, with left oblique inguino-scrotal hernia. He was operated on for the radical cure on May 30. The plug was removed on June 4, and he was discharged cured on July 2, 1868.

Case 31.—W. D., a Scotch carpenter, was admitted on June 24, 1868, with right oblique inguinal hernia. He was operated on for radical cure on July 14. The plug was removed on the 18th, and he was discharged relieved on August 3, 1868.

Case 32.—Nobo Krishun, a Hindoo priest, aged 34, was admitted on July 29, 1868, with left oblique inguino-scrotal hernia. He was operated on for the radical cure on July 29. The plug was removed on August 2, and he was discharged on September 14, 1868.

Case 33.—Assodoolah, a Mahomedan moonshee, was admitted on July 19, 1868, with left oblique inguino-scrotal hernia. He was operated on for radical cure on August 25. The plug was removed on the 29th, and he was discharged cured on November 29. He had been operated on for strangulated hernia immediately after admission. The sac was not opened. The stricture was found at the external ring.

Case 34.—C. S., a Dutchman, aged 43, was admitted on August 29, 1868, with left oblique inguinal hernia. He was operated on for radical cure on October 2. The plug was removed on the 6th, and he died of traumatic tetanus on October 12, 1868.

Case 35.—J. B., a Scotch clerk, aged 33, was admitted on January 2, 1869, with right oblique inguino-scrotal hernia. He was operated on for radical cure on March 22. The plug was removed on March 26, and he was discharged cured on April 29, 1869.

Case 36.—Dinonath, a Hindoo farmer, aged 17, was admitted on March 20, 1869, with left oblique inguinal hernia. He was operated on for radical cure on the 22nd, and the plug was removed on the 26th. He was discharged cured April 29, 1869.

Case 37.—J. F., an English cook, was admitted on August 15, 1869, with right oblique inguino-scrotal hernia. He had been operated on before by Wutzer's method, which failed. He was then operated on for the radical cure on August 19. The plug was removed on the ninth day, and he was discharged cured on September 2, 1869.

Case 38.—E. J. G., an English seaman, aged 40, was admitted on August 25, 1869, with right oblique inguino-scrotal hernia. He said he had been operated on before. The operation for the radical cure was performed for the third time on August 25. The plug was removed on August 29, and he was discharged cured on November 16, 1869.

Case 39.—Seenath, a Hindoo, aged 45, was admitted on September 20, 1869, with right oblique inguino-scrotal hernia. He was operated on for radical cure on September 24. The plug was removed on September 29, and he was discharged cured on October 26, 1869.

Case 40.—E. C., an English sailor, was admitted on

September 29, 1869, with left oblique inguino-scrotal hernia. He was operated on for radical cure on October 4. The plug was removed on the 8th, and he was discharged cured on October 27, 1869.

Case 41.—J. C., an English sailor, aged 25, was admitted on December 10, 1869, with right oblique inguinal hernia. He was operated on for radical cure on the 16th, and the plug was removed on the 20th. He was discharged cured on March 15, 1869.

Case 42.—J. D., an English sailor, aged 32, was admitted on December 18, 1869, with right oblique inguinal hernia. He was operated on for radical cure on January 15, 1870. The plug was removed on January 20, and he was discharged cured on February 22, 1870.

Case 43.—Koylas, a Hindoo shopkeeper, aged 24, was admitted on January 21, 1870, with left oblique inguino-scrotal hernia. He was operated on for radical cure on February 3. The plug was removed on February 8, and he was discharged cured on March 15, 1870.

Case 44.—W. S., an East Indian clerk, aged 28, was admitted on February 15, 1870, with right oblique inguinal hernia. He was operated on for radical cure on February 15, 1870, and the plug was removed on the 18th. He was discharged cured on March 20, 1870.

Case 45.—J. T., an Englishman, aged 27, was admitted on February 16, 1870, with right oblique inguinal hernia. He had been operated on with the plug once before. Wood's operation was performed on February 17. The wires were removed on February 24, and he was discharged cured on April 29, 1870.

Case 46.—C. K., an American guard, aged 30, was admitted on November 11, 1870, with right oblique inguino-scrotal hernia, and was operated on for radical cure on November 15, 1870. The plug was removed on November 19, and he was discharged cured on December 18, 1870.

Case 47.—Nobo, a Hindoo farmer, aged 20, was admitted on October 14, 1870, with left oblique inguino-scrotal hernia. He was operated on for strangulated hernia on October 15. The sac was not opened, and the constriction was found at the external ring. After the wound had healed he was operated on for radical cure on November 15, 1870. The plug was removed on November 19, and he was discharged cured on December 14, 1870.

Case 48.—Sne Nauth, a Hindoo, aged 40, was admitted on January 12, 1871, with right oblique inguino-scrotal hernia. He was operated on for radical cure on the 21st. The plug was removed on the 14th, and he was discharged cured on February 22, 1871.

Case 49.—E. B., a Welsh sailor, aged 27, was admitted on July 15, 1871, with right oblique inguinal hernia. He was operated on for radical cure on July 15, 1871. The plug was removed on July 20, and he was discharged cured on August 12, 1871.

Case 50.—Hajee Mahomed Ally, a Moullah, was admitted on August 9, 1871, with right oblique inguino-scrotal hernia. He was operated on for radical cure on the 18th. The plug was removed on the 22nd. He was discharged cured in September.

Calcutta.

AMAUROSIS SUCCESSFULLY TREATED WITH HYPODERMIC INJECTIONS OF STRYCHNIA.

By A. S. G. JAYAKAR, M.R.C.S.E., Etc.

P. H., a Rajpoot, aged about 35, was admitted into Huttee-singh's Hospital on March 21, 1871, with total amaurosis of both eyes. He had an amaurotic look, and his vision was very dim, being perfectly unable to distinguish light from darkness. He constantly turned the eyeballs upwards, almost under the upper lids, evidently for the purpose of attempting to bring the remaining small portion of the retina in axis with the object seen.

History.—The history of the case was rather unsatisfactory, the patient being far from intelligent. The only account he could give of his blindness was that it first commenced thirteen months ago with a sensation of burning in both the eyes, followed by a gradual loss of sight. He then suffered from fever for about ten months, and had suffered from total amaurosis for nine months before his admission.

Ophthalmoscopic Examination.—Right eye: Image natural; media dull; disc anæmic; no venous congestion; shape of bloodvessels undefined; arteries atrophied; retina pale and anæmic. Left eye: Image natural; media dull; disc and retina anæmic, the same as in the other eye; arteries atrophied.

There was no photophobia or pain of any kind in either eye.

On March 31 one twenty-fourth of a grain of strychnia was injected into the back of the neck.

April 1.—The patient expressed himself slightly relieved. He could count fingers and distinguish colours with the left eye. With the right he could only distinguish light from darkness.

4th.—There was some more improvement in the right eye. He could count fingers and tell different colours with it; but there was no progress with the left eye. He was ordered to again have one twenty-fourth of a grain of strychnia injected.

5th.—Left eye considerably improved; so also the right, to a certain extent. Could tell the shapes of different objects and count dots.

9th.—One twenty-fourth of a grain of strychnia was again injected.

10th.—There was a marked and decided improvement in the left eye, the right also having improved to some extent. With the left he could tell minute objects.

18th.—Another injection administered.

19th.—The patient could count dots No. II. (arranged on Snellen's test-type scale). With the right he could only count No. XX.

May 21.—An ophthalmoscopic examination revealed an improved state of both the disc and retina in the left eye; whilst the same structures in the right eye were in much about the same condition as on his admission.

7th.—Hypodermic injection of strychnia was given in the right temple.

12th.—The injection in right temple was repeated.

22nd.—No change having been noticed in the right eye since the last note, the injection was again repeated, with this beneficial effect: that he could see No. VI. easily with the right eye, the sight in the left eye remaining stationary.

By June 6 (the day on which he was discharged from the Hospital, being very anxious to return home) the physical condition of both the disc and retina in the right eye had greatly improved; and, instead of atrophic arteries, there were well-defined bloodvessels in both the eyes. Vision of right eye could count No. VI.; with left eye could count No. II.

Remarks.—This was evidently a case of asthenia of the retina and discs, accompanied with exhaustion of the optic nervous apparatus, and a case, therefore, best suited for treatment with hypodermic injections of strychnia, so strongly advocated in these cases by Professor Nagel, of Tübingen. The patient had altogether seven injections between March 31 and May 22, the quantity of strychnia used being about one-third of a grain; and, on the whole, the progress of the case has been satisfactory. Perhaps, had a larger quantity been injected each time, a more rapid improvement might have been noticed; and, if the line of treatment had been persevered with for a few weeks more, I have no doubt but that his right eye would have eventually come to the same state as the left, so as to be able to count No. II., and even some further improvement may have been reasonably expected in the left.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

EDINBURGH ROYAL INFIRMARY.

CASE OF ADHESIVE PERIMETRITIS.

(Under the care of Dr. MATTHEWS DUNCAN.)

[Reported by Dr. J. R. Hardie.]

B. C., aged 21, who is married, and has three children, was admitted to Ward 16, January 9, 1872, complaining of a weight in the left side of the belly. Her last child was born two months ago, and it was a month subsequent to this occurrence that she first felt the symptom complained of. She was knocked down two days after delivery, and although she experienced no pain at the time, attributes her complaint to this accident.

On a physical examination being made, the lower part of the abdomen is found to be slightly prominent. This is seen more especially on the left side. The right side is natural, soft, and resonant on percussion. On the left side, and pretty fully occupying the whole of the left iliac fossa, is a hard, rounded lump, which is not tender and not movable, extending down into the pelvic cavity. On internal examination, the cervix uteri is found to be lying to the left side and pretty high up. Any movement of the hypogastric tumour is felt at the neck of the womb. The sound passes easily into the uterus two inches and a half, going right into the iliac tumour.

Progress of Case.—February 1.—The tumour is sinking into the pelvis. For the last ten days patient has had sickness and vomiting, which she describes as resembling that of pregnancy.

7th.—The uterus can no longer be felt in the left iliac fossa, and on examining per vaginam it is found to be in its natural situation, except that it is displaced to the left side. It is displaceable, but not freely movable. Its cavity measures fully two inches and a half. Sickness and vomiting have entirely ceased.

16th.—Uterus still fixed in the left posterior quarter of the pelvis. The vagina, which before was elongated, is now in the ordinary condition.

17th.—Dismissed.

Remarks.—The presence of a defined hardness or lump in the right iliac fossa due to a simple inflammatory process is not uncommon; it is generally the result of inflammation in the neighbourhood of the cæcum. A similar condition on the left side rarely, if ever, exists. A swelling in that situation is usually connected with disease in the pelvis—usually merely an extension upwards of a perimetric abscess. Although parametric abscess occupying only an iliac fossa, as is the case frequently with perityphlitic abscess, does not occur, yet parametric inflammation and abscess may be found occupying other more distant situations exclusively, as the region of the kidney. On a superficial examination of the case, it appeared as if we were about to encounter an exception to this statement. But further inquiry showed that this was not so, and that, as far as regarded the case of B. C., it still held true. A vaginal examination detected a close connexion between the lump in the left iliac fossa and the neck of the uterus, and the uterine probe introduced through the os uteri passed into the middle of the lump, thus making clear that we had to do with the uterus lying fixed in the left iliac fossa, and that, judging from the history, it had become so shortly after delivery. The case was not one of parametritis at all.

This case, then, is clearly one of adhesive perimetritis post-partum. Adhesive perimetritis in the non-puerperal state is common enough, and those who are in the habit of watching such cases are familiar with the fact that the uterus then frequently becomes adherent to parts in its neighbourhood, such as the sacrum or opposite the sacro-iliac articulations. But, unfortunately, after delivery this simple form of the disease is seldom met with, considerable matting together of the bowels, followed by the formation of an abscess, being the general result.

A symptom of perimetritis, on which stress has been laid by some authorities, was absent here: I allude to the presence of acute pain. The only complaint the patient had was of a feeling of weight in her left side, certainly not of anything approaching in character to what is ordinarily understood by acute pain. The absence of this symptom in peritonitis, even when it is general, is not uncommon, and the bringing of it forward as a means of differentiation in the diagnosis of peri- and parametritis, as is done by some authors, seems unwarranted.

Attention has been directed to the value of the uterine sound to gynæcologists, and the point illustrated practically in previous cases: any doubt as to the nature of the case before us was at once settled by its use.

The comparative rapidity with which the adherent uterus became free and descended into its natural position is noteworthy. This was probably brought about by the strain on the uterus, induced by its high position, dragging on the adhesions, combined with the mechanical effects of respiration and the natural process of absorption tending to stretch and remove them. During the process of subsidence of the uterus into the pelvis the patient was subject to sickness and vomiting, which was little affected by medicine, and ceased on the completion of the sinking of the womb. This vomiting may have been reflex in its origin and connected in some way with the return of the uterus to its normal position; a resemblance to the sickness of pregnancy suggested itself in connexion with it.

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Medical Times and Gazette.

SATURDAY, APRIL 6, 1872.

MR. STANSFELD'S HEALTH BILL.

The Medical world is well aware that Mr. Stansfeld brought into the House of Commons on February 16 a Bill to amend the law relating to Public Health, which, as its author declared in a speech on Wednesday at Halifax, though prepared with considerable care, was yet capable of being made better by criticism from the House of Commons and from the country at large. On its intrinsic principle there can be no two opinions—viz., that disease and destitution go hand in hand; that the same evil genius which enhances the poor-rates also levies a costlier tax in the shape of fevers and diarrhœa; and that a great and beneficial step was made when pauperism and disease were subjected to the one central authority of the Local Government Board. Henceforth it may be hoped that "sanitary science" and "sanitary measures," instead of being practically confined to a few places, or made the subject of elaborate and impossible theories, will be seen in action everywhere in the hands of competent practical men. The common sense of the nation demands that we shall no longer see huge institutions, public and private, for the treatment of preventible disease, whilst prevention is utterly ignored.

One essential part of all sanitary law relates to the definition of offences—*i.e.*, *nuisances*. There is one part of Mr. Stansfeld's Bill—that, namely, relating to the pollution of rivers—which, although inserted out of deference to the Rivers Pollution Commission, is too minute to be ever carried into effect. It proposed to define to the thousandth of a grain how much of metal or organic substance in solution may or may not be allowed to run into a river. But we gather from Mr. Stansfeld's speech that these details are not likely to be pressed. In many other respects the nuisance definitions of Mr. Stansfeld's Bill are felt to be very valuable, and we understand that the Association of Officers of Health greatly desire their extension to London, as thereby they will be enabled to deal with offenders who now set them at defiance. The clauses relating to adulteration, trade nuisances, removal of refuse, water, and the like, if judiciously modified, would be valuable additions to sanitary law.

Additions! Here lies our rub. Sanitary laws are too many already, and need consolidation after the manner recommended by the Royal Sanitary Commission. There ought to be no doubt as to whether a nuisance should be proceeded against under the Nuisances Removal Act, or the Metropolis Local Management Act, or the Bakehouses Regulation Act, or any Act to amend any previous Act. We want a *tabula rasa* and

a clean start, but this cannot be done in a day; and meanwhile we should be very foolish to reject new sharp instruments because there is a confused multiplicity of cabinets in which they are kept.

Then, again, as to the authorities who are to put the laws into force. Most towns at present, which possess anything like municipal government, have in that governing body a "local authority" to put sanitary laws into force. Mr. Stansfeld proposes to continue them under the name of *Urban*, and to erect extra-urban districts under the name of *Rural* sanitary districts; besides which, *Ports* are to have a special sanitary authority of their own.

In the next place, there are the officers who shall inform the local authorities (*i.e.*, Medical Officers of Health), and those who shall execute the laws, serve processes, etc. (*i.e.*, Inspectors of Nuisances). The existing Medical Officers of Unions *may* be elected Medical Officers of Health.

There is, lastly, the machinery requisite for harmonising and combining the powers of the various local authorities, and for superintending the due execution of the whole. This is reserved for the Local Government Board, with its Medical Officer and its Inspectors—Medical, engineering, and legal—with a responsible Cabinet Minister and Member of Parliament at the head.

This is the gist of Mr. Stansfeld's Bill. Now, it is perfectly unavoidable that it must be subjected to the sharpest criticism at every stage. Most important it is that our brethren who have invested their capital—*i.e.*, their lives—in acquiring practice in rural districts, and who have borne the burden of parochial work, should not be disturbed by regulations which might inflict on them new duties for which they have neither time nor taste. At the same time we would urge them not to listen to the fretful friends who are perpetually plying them with dismal prophecies. Increase of pay, of authority, and of position will always tell; and we do not believe that a man who is honoured and trusted for his Medical skill will be damaged by being called upon to use it as Medical Officer of Health. Public opinion demands preventive as well as curative treatment, and they will be wise in swimming with the flood. If a man is afraid of acting as Medical Officer of Health, he will also be afraid of acting as Deputy or Assistant. As for the question of sanitary areas, so many interests are involved that we may be certain this will be decided on other than theoretical grounds. Country people, if we know them, will repudiate the possibility of paying for town improvements. Monopoly in analysis or in work must be repudiated. Between inspectors from a central Government office and those from intermediate centres, in these days of railways and telegraphs, there may not be much practical difference. If there is any difference, so far as despatch of business is concerned, commend us to a central power. Too much stress should not be laid on the idea that men who act as sanitary officers should give up private practice; every case should be decided on its own merits; and there are many provincial Physicians who could afford to devote some time to sanitary work. Meanwhile, we would urge our readers to get what they can, without waiting for the realisation of impossible dreams. In this view, Dr. Barclay's late criticisms will be accepted as those of a practical man well acquainted with the subject he treats of.

THE WARWICKSHIRE STRIKE.

The Warwickshire Strike is a movement which is of some Medical interest. We do not mean in its political aspect, but in its sanitary. The English agricultural labourer is entirely a different man in habits and mode of life from the English town labourer, whether mechanic or manufacturing hand. He is taller, bigger, and stronger, but not so acute and restless; slower, and less energetic. He does not consume one-tenth of the animal food that the town operative devours, but he does not drink one-twentieth of the quantity of alcohol. He may occasionally get a little muddled on muddy ale or sour cider, but he is never incapable for three days in the week. He lives in the open air, and is exposed to all weathers; his clothing is, as a rule, not insufficient, but his food is chiefly bread, potatoes, suet dumpling, and vegetables, with a little pork or cheese, but very rarely fresh butcher's meat. He sleeps probably over a dungheap or near a cesspool, with his wife and half a dozen children in the same room, and is very fortunate if he escape an attack of continued fever once in his life. But his great enemy when he is over 50 is rheumatism, and this consigns him to the care of the parish during the last decade. Still his existence has its bright side. He rarely knows what a headache is. His labour is of the slow, enduring kind which does not exhaust; and, if he escape death from continued fever or accident, he lives beyond threescore years and ten. His children are healthy, they are not syphilitic or strumous, and his wife does not suffer from "nerves." The town operative, who earns twice as much money, and who could earn three times as much if he worked all the working days of the week, dies at 50, and rarely passes a year without being an out-patient at a Hospital or getting some medicine from his club Doctor. One of his children has hip-joint disease, and another is blind with one eye from keratitis. His wife spends nine hours a week waiting for the Doctor in the out-patient room of a Hospital. He was a clever, intelligent lad, with a smattering of education, but after 30 he got heavier and more stupid, and has long given up all idea of climbing to a higher round in the social ladder.

Now, supposing that the Warwickshire Strike spreads, and that it results in giving the agricultural labourer higher wages, what will be its result? Will the agricultural labourer become a higher, better-developed, more intellectual, and not less physically healthy man than he is? or will he, with increased means, adopt any of the causes of deterioration which are at work among our town populations? We perfectly agree with the defenders of the present combination, that the agricultural labourer's condition might be and ought to be bettered. He ought to have a better dwelling, and he ought to have a somewhat more animalised diet; but, except in these two particulars, we believe his lot in life is infinitely preferable to that of the town operative, who works on from day to day amongst the noise, the comparative darkness and smells of a factory, and retires from the public-house (the only bright place that he knows of) to his room, with his ailing wife and sick children in a town alley. If the farm labourer can be taught to make some provision for old age, and to give his children a better education, and to spend part of his increased pay on a somewhat more nutritious diet, a higher rate of wages will make him a happier and a more energetic man. But if the greater amount of money current amongst a rural population, and the shorter hours of work, convert the village ale-house into a gin-palace and bring into the country the vices of the town, it will only necessitate an increase of Cottage Hospitals and County Infirmaries.

ANTISEPTIC TREATMENT OF SMALL-POX.

Dr. Arthur Wynne Foot, of the Meath Hospital, has recently communicated to the Medical Society of the College of Physicians, Dublin, during their discussion of the subject of small-pox, a paper which we deem worthy of being made as widely known as possible. A full report of the proceedings of this Society appears in the current number of the *Dublin Monthly Journal*, to which our readers may refer, should they desire greater detail. The subject is the "Antiseptic Treatment of Small-pox," and is the more important inasmuch as it introduces a principle into the chaotic varieties of treatment generally adopted. The ordinary plan of dealing with small-pox, as with most other diseases which run a course, is to let it alone, to treat symptoms as they arise, and to ward off evil effects should they

make their appearance. In the ordinary sense of the word this is not treatment at all, and we are by no means sure that it is sound in principle. At all events, Dr. Foot has attempted, with a certain degree of success, to apply a system which has been attended with good results in Surgery to a loathsome disorder, and one of extreme severity. We are happy to make his ideas and his system more widely known than they now are, and we hope that others will test both, so that we may know their true value.

The total number of patients treated was fifty-nine; but these were so carefully studied that their value is much greater than a multitude less closely observed. Of the fifty-nine, twenty-four were confluent and six semi-confluent, and out of these eleven died—a mortality of more than one-third. But it must be remembered that confluent small-pox in a severe epidemic is an extremely fatal malady, its fatality amounting to quite 50 per cent.; moreover, the cases treated were in badly fed patients, brought late to Hospital, some unvaccinated—in short, a most unpromising series. Dr. Foot says—

"The way in which I endeavoured to carry out the antiseptic treatment was by giving carbolic acid internally in the shape of the sulpho-carbolate of sodium, and when more suitable the sulpho-carbolate of iron, giving the sulphurous acid of the Pharmacopœia, diluted with water, as the usual drink, using gargles of sulphurous acid, spraying the larynx with it, washing the nares and upper surface of the soft palate with solutions of sulphurous or of carbolic acid, keeping carbolic oil to the face, washing the body with solutions of sulphurous acid or vinegar and water, throwing pure sulphurous acid about the bed and bedclothes of the patient, and burning sulphur in the room, so that the sick might breathe for some portion at least of the day an atmosphere charged with some sulphurous acid gas in it.

"After much consideration of the subject I have adopted the opinion that the secondary fever of confluent and semi-confluent cases is due to the presence in the body of products of decomposition, which commence to be formed as soon as the lymphy contents of the hitherto vesicles become purulent, rather than that it results from the dermatitis which springs into existence at that period, and which I consider to be the necessary consequence of the irritation of the now numerous sub-epidermic abscesses; and believing that in carbolic acid, used both externally and internally, there is an agent capable, when it can get fair play, of checking the decomposition of the pus, or of paralysing the effects of the products of its decomposition, I considered the first thing was to ascertain the best mode of its administration.

"I have given the sulpho-carbolate of sodium in thirty-four cases of small-pox, in doses of from seven grains occasionally, to sixty grains every third hour; it is very soluble, and can be taken in plain water, or if its earthy-saline taste must be disguised, it can be given with some infusion of orange-peel or of cascarilla. During its administration carbolic acid is eliminated by the lungs, its odour being very perceptible in the breath, and the sulphuric acid and soda pass off by the kidneys. I have not observed it to cause any sickness of the stomach or unpleasant feeling in the head, even in very large doses; children have no objection to it. I have also verified the observations of Dr. Sansom, that subsequent to its administration the fetor of the evacuations from the bowels is greatly lessened, the urine is unusually slow to decompose, and the flesh resists putrefaction. I had opportunities of remarking the latter fact in making post-mortem examinations. I never found anyone to complain of the usually nauseous variolous odour of the skin.

"At the same time, in all confluent and semi-confluent cases I use sulphurous acid in every form and way in which it can be applied.

"One of the simplest and most effective ways of exhibiting sulphurous acid is in the gaseous form; flowers of sulphur dropped on a heated shovel and carried about the room with its pale blue flame, forms by its combustion sulphurous acid gas, which, diluted with the nitrogen of the atmosphere, can pass into the lungs of the patients; and I consider that there is reason to believe that this practice three or four times a day is beneficial to the attendants and other inhabitants of the house as a prophylactic. Irritation of the bronchial membrane soon gives notice when there is as much sulphurous acid gas in the atmosphere of the room as is consistent with health; it specially and soonest affects anyone with bronchitis, and I should say it ought to be used very carefully if the variolous patient were labouring under that affection. One of the nurses at the Hospital who suffered from chronic bronchitis used to be greatly affected by the daily fumigations if in the rooms when it was being done, and used to feel its effects long before and long after any of the patients or other attendants. Some persons in health also have by idiosyncracy a condition of the lining membrane of the air-passages which makes them peculiarly sensitive to this gas, even in a very much diluted form, and in such a reflex cough is very quickly excited. It is not to be supposed that the principal object in burning sulphur is to disinfect the room—this is an after-consideration, and would require an amount of sulphurous acid gas dangerous if not fatal to life; but it is to develope as much of this antiseptic agent as may be safely inspired, with the view of checking the multiplication of the small-pox poison in the person of the patient, very minute quantities of sulphurous acid being capable of arresting fermentation.

"The sulphurous acid of the Pharmacopœia undiluted I frequently apply in an atomised vapour to the nares and pharynx, through vulcanite tubes, curved or straight as may be required, in the manner recommended by Dr. Dewar, of Fifeshire. I have found that patients like it, and eagerly ask to have the operation repeated. It removes disagreeable tastes from the mouth, keeps the nose free from obstruction by accumulated crusts, and much of it must reach the lungs. A few whiffs open the nose when it is stuffed, or when, as hospital patients say, the head is stopped; the spray has not the suffocating odour of the bottled acid.

"I give them the acid internally several times in the day, or for a drink both day and night when there is much thirst, in drachm or two-drachm doses at a time, diluted with water. One drachm of the acid in two wineglasfuls of iced water is a very pleasant drink. Less water may be used—a drachm may be taken in a wineglassful of water; but if the acid has been freshly prepared, or very well kept, the drinking such a solution may catch the breath. If the person drinking the acid in the strength of one drachm to two ounces of water will avoid inspiring through the nose when the glass is brought to the lips, and swallow the liquid in gulps, the vapour cannot irritate the air-passages. I always have the acid added to the water which the confluent and semi-confluent cases drink, and they like its acidity very much. I frequently take it myself as an agreeable and wholesome beverage, and advise the students to do so, as a prophylactic. I prefer the sulphurous acid to the sulphites or bisulphites, because they are so unstable in solution—the form in which they must be given—rapidly absorbing oxygen, and passing to the state of sulphates. Neither have they much to recommend them in preference to sulphurous acid on the score of cheapness, purity, or flavour."

Of the complications which may arise in confluent small-pox, and which add so much to its danger, Dr. Foot enumerates four—laryngitis, delirium, hæmorrhage, and albuminuria. Of the first he says—

"Laryngitis in some degree is an almost inevitable event in confluent variola, and is, perhaps, usually the most frequent immediate cause of death. I have endeavoured in all severe cases of variola to anticipate this event—this I think is the way to combat it; but if the case is not got in time, of course this plan is out of the question. When I have had an opportunity of treating a case from the commencement, or from an early period, upon the very first complaint of any kind about the throat—and sometimes the answer to the constant inquiry will be only a 'queer feeling' in the neck—I surround the neck with cotton-wool, spray the larynx and pharynx with a saturated solution of tannic acid, give ice, and mop the throat with glycerine of tannin. I afterwards, when necessary, apply leeches freely to the neighbourhood of the thyroid cartilage, followed by poultices and hot sponges. I also use sprays of solution of carbolic acid, five minims to the ounce, solution of sulphite of soda, sixty grains to the ounce, or the sulphurous acid B.P. undiluted. Of any single remedy ice has certainly given the most relief in laryngeal complications, and has been in almost constant use night and day, in the small-pox wards; the swallowing of the melted ice also relieves the salivation and dysphagia resulting from the irritated mouth and pharynx, and next to ice the patients seemed to like, from its immediate, though often only temporary relief, the spray of carbolic acid, especially when sent through the nose, and followed by a stream of water."

Delirium, Dr. Foot thinks, is mainly due to habits of previous intemperance, and so allied to one form of delirium

traumaticum commonly called delirium tremens. In these stimulants were the most useful remedies; chloral and opium did no good.

There was only one case of hæmorrhagic small-pox, and of this the patient died. Albuminuria occurred in three, and these died.

As regards the face, Dr. Foot thinks the treatment given above as important as local applications, but he takes advantage of these, too, by keeping carbolic oil on it from the first in varying strength, from one to three or one to seven of oil, hiding the smell, if objected to, by origanum. This he thinks does good.

Dr. Foot notes that with the sulpho-carbolates the urine is commonly blackened; but this, he says, is not due to the presence of blood. Furthermore, he remarks that he has always given sulphurous acid along with the sulpho-carbolates, his object being to cure his patient, not to experiment with drugs.

The use of antiseptic remedies in such a disease cannot be made out by one series of experiments, but in the hands of Dr. Foot they have at least proved so useful as to amply merit further trial. Dr. Hudson's experience has also been highly favourable.

THE BRIGHTON REVIEW.

The battle of Easter Monday has been this year even more bloodless than usual. A case supposed to have been an epileptic fit, and two or three of faintness from fatigue, have been all that came into the Doctors' hands. About 25,000 Volunteers have come to Brighton, gone through the day's work, and returned, with no greater list of casualties than this. Less could scarcely have befallen them if they had stayed at home; more would almost surely have befallen them if they had walked about the streets of London all day. But, however satisfactory this result may be, it is by no means one that can be reckoned upon in such cases, and the precautions taken by the Medical Staff, under the direction of Brigade-Surgeon J. Cordy Burrows, with the assistance of Dr. Mayo, Assistant-Surgeon Inns of Court R.V., cannot be considered excessive. An accidental explosion, the upsetting of a gun or waggon, a stampede among the horses, or a score of other mishaps, might seriously change the aspect of the day. To be ready for any such occurrence, Field Hospitals were established as follows:—

1. A large marquee on the top of Newmarket-hill, with twelve beds, in charge of Surgeon J. Heckstall Smith, 1st Sussex Artillery Volunteers, assisted by Dr. Paul, Surgeon 8th Surrey R.V.

2. Some rooms at the Warren Farm, with six beds, in charge of Surgeon G. F. Hodgson, 1st Sussex R.V.

3. A room at the Race-stand, with six beds, in charge of Assistant-Surgeon H. Helsham, 19th Surrey R.V.

4. A flying Hospital, consisting of a bell tent carried in an ambulance waggon, of which Dr. Mayo took charge.

The last-named very compendious establishment was first set up on the left of the 4th Division—the left wing of the Lewes force—at a point indicated by the commander, Major-General Armstrong, and afterwards moved up to a position near the centre of that force; but the brevity of the battle, which lasted only an hour and a half, prevented its quality of mobility from being put to the test. It was necessary to have an outlying Hospital of some kind, because the three stations before mentioned were all towards the Brighton end of the ground. To one looking at the Volunteers not from a purely military point of view, but simply as "Kanonen-futter," or food for powder, the improvement which has taken place in the last few years is very apparent. A better average physical standard and a steadier deportment distinguish the Brighton Volunteer of to-day from the raw shopboy, whose idea of the mode of enjoyment of those whom he supposed to be his betters led him in former years to make many nights hideous, and from the hero of that Windsor review—a day to Volunteers always *carbone notandus*—when a not-much-enduring Inspector-General was mobbed at a fatal bridge. But all this, let us hope, is buried in the past. At all events, it is certain that no general in the world need wish for better average material, or for men more willing to learn, than those five-and-twenty thousand partly trained soldiers who went out on Monday; and it is no less certain that, whether under the name of Volunteers or, what would be far better, as battalions of Militia, the class which furnishes those men has taken, and will take, its place in the defensive force of the country, whether it please office-holders and other privileged persons or not.

At the service held on Sunday in the dome of the Pavilion, the upturned faces of 3000 men afforded an interesting study. The great majority were, of course, of one class—the well-fed, well-clothed, well-housed, well-to-do class. There were 3000 crania, noses, and mouths, and as many pairs of eyes and ears from which to generalise—all, or nearly all, belonging to natives of the southern part of this island. The noses did not justify the pictures of the typical Englishman of our Continental neighbours' satirists, for the great majority, instead of being hooked, were more or less straight, or concave. The alæ were, perhaps, wider and fuller than the Teutonic type, and decidedly more overhanging than the Celtic type. The open mouth and projecting upper incisors represented by the same artists were scarcely to be seen. They belong, indeed, usually—with other instances of defective development—to the women of the idle and overbred class in this island. As to colour of hair and eyes, the Teutonic tints decidedly predominated. Of downright carrotty heads there were very few. The crania were, it must be admitted, not very much to boast of. They were, however, of a fair average shape, capable of improvement; and if education in this country is brought up to anything like the level of other civilised countries, the heads carried by the grandsons of these 3000 will show a marked advance. There was a fringe of elegance apart from the general throng, where the narrow skeleton, small brachycephalic cranium, and projecting nasal bones gave not much promise of improvement. Among so many faces all kinds of character were, of course, to be read; the ambitious man, perhaps, came most to the front. The patience with which all endured an overdose of carbonic acid and clerical oratory, until human nature would stand it no longer, was highly praiseworthy.

The Ambulance Service was somewhat more efficient than on former occasions. Four very well-horsed waggons were sent, in charge of Lieutenant Irving, of the Control Department, two of which, under Dr. Mayo's direction, accompanied the Lewes force, while the other two were stationed between the Brighton force and the fixed Hospitals. Fortunately, their duties were almost limited to a "walk over"; but if accidents had occurred, four waggons would have been found none too many for ten square miles of ground. A new pattern of ambulance waggon was completed a year ago at the Arsenal at Woolwich, but has not yet made its appearance among the Volunteers. That there is room for improvement in the old ones may be inferred from the perhaps too-highly-coloured statement of a Regular officer on the field on Monday, that, if he were badly wounded, he would elect to be taken out and shot at once rather than travel across country in one of them.

Medicine has had more to do with this review than appears on the surface; for did she not, in the person of our worthy brother, Mr. J. Cordy Burrows, now for the third time Mayor of Brighton, rally the fainting spirits of the citizens when the cocked-hatted interest was adverse—nay, more, beard the lion in his den, the official on his stool in Pall-mall, and when the point was carried, and the review after all came to Brighton, entertain the commanding officers and the Doctors at breakfast at the Pavilion, and crown the day with a capital subscription-ball there, got up in forty-eight hours, at which Prince Arthur and Prince Edward of Saxe-Weimar, a great part of the staff,

and about 500 others right willingly assisted? Long may this most public-minded citizen retain the power of acting as a Pericles to his fellow-townsmen; and when his active career is closed by a green old age, let no man, moved by that irreverent spirit of jesting against our Profession which is so common among ignorant people, deny him the right to use the famous boast of that great man when his work was ended.

Mr. Burrowes's fellow-townsmen have shown their appreciation of his readiness to devote himself to their interest on all occasions by presenting him, shortly before his third election as Mayor, with a handsome carriage and pair, and £300 worth of plate—a gift as creditable to them as honourable to him.

The march past at the Grand Stand was all that could be desired; and as the two contending armies joined in brotherly accord on the race-course, their day's work could be briefly summed up as a short engagement, ending in a happy union.

THE WEEK.

TOPICS OF THE DAY.

Saunders's News-Letter of April 1 contains an able letter, signed "Dispensarius," on the Poor-law Medical Service of Ireland, which well deserves the consideration of Parliament and the General Medical Council. Ireland is just now suffering from a severe epidemic of small-pox. In Dublin alone the deaths already amount to 750, a number which would be represented by about 7500 deaths in London, and the disease will undoubtably spread over the country as it has in England. The Poor-law Medical Officers in Ireland number about 1000, and they include half the Medical men in the country. In the country districts the majority of the Medical men are Poor-law Medical Officers, and in many—as Cavan, Fermanagh, Kildare, Longford, Queen's County, Roscommon, and Sligo—they are nearly all so. Four-fifths of the inhabitants of Ireland form the rural population, and number over 4,000,000 souls, who in sickness are treated by 1000 Medical men, or about 1 to every 4000. There are at present about 2000 Medical men in Ireland, but of these 1000 practise in towns, and the meagre salaries of the Irish Dispensary System are not sufficient to induce them to go into the country districts. Moreover the supply of Medical men is lessening. This is proved incontestably by the diminishing receipts of the General Medical Council for Registration, and the reasons are not difficult to find. In the first place, the portal into the Medical Profession is becoming yearly more narrow and difficult of access, and the difficulty will be greatly increased by a Conjoint Board with a thirty or thirty-five guinea diploma; in the second, Medical fees have not risen in proportion to the general diminution in the value of money; in the third, trade and manufactures offer, in consequence of the levelling-up process that has been going on for a long time, an equally good station in society and in public estimation, and far greater facilities for becoming rich. In the face of these things how are the sick poor population of Ireland and (in course of time) of England and Scotland to be Medically tended? Small-pox, as we have said, is increasing in Ireland, and will very probably be followed by typhus, which is never entirely absent, and at present there is one Medical man to 4000 of a sparsely scattered population! There are three remedies for the present state of things. First and foremost, an increase of pay to the Dispensary Medical Officers sufficient to attract men to enter the Profession. Secondly, a division of the Dispensary districts into smaller areas. Thirdly, the competitive system, which would do away, in Ireland, with the miserable religious feuds which make it impossible for a Roman Catholic Doctor to obtain an appointment in one district, or a Protestant in another.

The Rectorship of St. Andrews has been accepted by Lord Neaves, who, in the election, obtained three more votes than Professor Huxley.

Mr. R. Strickland Hannay, the House-Surgeon to the Westminster Hospital, in reference to one of the cases headed "Drunk or Dying," which appeared in the papers, has written to the *Times* a letter in explanation of his conduct, which appears to have been greatly misrepresented at the inquest. He writes:—

"I examined the man carefully, and questioned the two men who were with him, and the information which they gave me was quite different from what they are reported to have sworn. They did not tell me he had vomited blood, nor had he any marks of having done so, and they did not lead me to suppose that he had fallen anything like sixteen or eighteen feet; but one of the men told me that he had given Ford two half-quarterns of brandy after he fell.

"I did not order him away from the Hospital then; but, though there were not the slightest symptoms of either concussion or compression, I said, 'Better let him lie down for half an hour, and I shall see him again.' About three-quarters of an hour after this I again went into the surgery, where I found the man sitting on the couch whistling, quite conscious and rather violent. I said I did not think it a case for admission, and advised him to go home.

"Now, Sir, for the statement that I refused to attend the inquest. That is entirely wrong. I saw the coroner's officer and nodded to him two hours before the inquest was held, and he said not one word to me about such an inquest being held, or that it would be held in our Hospital. Had he done so, I should have been only too glad to have attended without a subpœna, for the sake of clearing my own character and that of the Hospital; but I was not in the Hospital nor within some miles of it when the inquest was held, I being off duty at that time.

"I must solemnly and emphatically state that at the time I saw the man he had not one symptom of either concussion or compression of the brain, nor any sign by which any Surgeon in the world could have diagnosed the nature of the injury sustained; and others, besides myself, examined the man, and can bear me out in this statement."

Mr. E. Charlesworth, F.G.S., believes he has discovered traces of man in the Suffolk crag (older Pliocene). He has found teeth of an extinct shark, apparently perforated by human agency. The specimens will be exhibited and described at the Anthropological Institute on April 8. If his inference is correct, this would make man in England a congener of the mastodon, and put him back far earlier than the earliest flint implement yet discovered.

PROCEEDINGS OF THE ROYAL COLLEGE OF SURGEONS.

The following is an abstract of the unconfirmed minutes of the last Council of the Royal College of Surgeons, held on the 26th ultimo:—The President reported that communications had been received from the Home Office and from Marlborough House, conveying the gracious acknowledgments of her Majesty and of her Royal Highness the Princess of Wales of the addresses from this Council congratulating them on the recovery of his Royal Highness the Prince of Wales. The following resolution of the General Medical Council, forwarded by Dr. Paget, the President, was read: "That the Council approve of and sanction the Conjoint Scheme of Examination submitted by the Royal College of Physicians of London and the Royal College of Surgeons of England, to which the Universities of Oxford, Cambridge, and Durham have given their adhesion. The Council has at the same time to express its desire that means may be found by which the University of London and the Apothecaries' Society may be enabled to join in the scheme, so as to render it a complete scheme for a Conjoint Board for England."

Mr. Quain, as representative of the College in the General Medical Council, then made a statement in reference to the proceedings of that Council, when the following resolution of the Committees of the Colleges of Physicians and Surgeons with respect to the resolution of the General Medical Council

on the Conjoint Scheme was read, viz.:—"That this Committee, though not officially acquainted with the resolution of the General Medical Council on the subject of the scheme for an Examining Board adopted by the Royal College of Physicians and the Royal College of Surgeons, consider that the terms of the resolution warrant their recommending to the representative Colleges that they should proceed, so far as in them lies, to carry out the adopted scheme." Whereupon, it was moved by Mr. Charles Hawkins, and seconded by Mr. Hilton—"That the Committee on the Conjoint Scheme be authorised to proceed, so far as in them lies, to carry out the scheme as sanctioned by the General Medical Council;" and the votes of the Council having been taken on the motion, the same was carried *nem. con.* When Mr. Quain moved, and Mr. South seconded, the following:—"That having reference to the resolution of the General Medical Council respecting the scheme for Conjoint Examination, the Council thinks it desirable that means should be taken by the conjoint Committee of the Royal Colleges of Physicians and Surgeons to carry out the wishes of the General Medical Council, so as to render the scheme complete;" and the votes of the Council having been taken, a majority was against the same.

The Council elected a Committee to consider and report upon the conditions upon which members of twenty years should be elected to the Fellowship under Section 5 of the Charter of 1852. The Council also elected a Committee to consider and report on any alterations required in the by-laws and standing rules.

A report from the Dental Board was read, and the recommendation in reference to the non-recognition of the Dental Hospital, Russell-street, Liverpool, was adopted; but with regard to the recognition of the Dental Department of St. Thomas's Hospital, the Council was of opinion that the same should be recognised.

Owing to his absence, the consideration of Mr. Erichsen's motion was postponed.

A letter was read from Mr. Quain, resigning his appointment as a member of the Committee on the Conjoint Examining Board.

ACTIONS RELATING TO MEDICAL MEN.

The recent Spring Circuits have been somewhat rife in actions by and against Medical men. They have been either for negligence on the one hand, or for defamation on the other. On the whole, the Medical Profession has come off with as little damage as the glorious uncertainty of the law generally assures, and has vindicated its honour and reputation as fully as such a large and somewhat heterogeneous body could expect. But what about the costs? In one case the judge cannot satisfy himself whether a contract was entered into with a father or with a son under age, and the court above must solve the knotty point. This means ruinous costs. In another, an apology with payment of costs terminated the action; but this means a balance of extra costs to be defrayed by the successful suitor, there being no damages to cover them—a compliment from the Bench being considered more than an equivalent. In a third case, £5 damages for a deliberate libel, though carrying costs, leaves a large margin disallowed by the taxing master. The spirit thus evinced by the individual members of the Profession to protect their honour or their reputation is, however, only the more creditable. Mistakes will occasionally occur, but they are not necessarily proofs of negligence or ignorance, and the Medical Practitioner cannot be expected quietly to acknowledge them as such. On the other hand, to submit patiently to slander would be only too readily accepted by the public as an acquiescence in its truth. Thus are Medical men, perhaps above all other members of the community, placed in positions which affect both their reputation and their pockets; and in the vindication of the former they must, it seems, generally make up their minds to suffer in the latter. There is one case of peculiar hardship that has happened on the Home Circuit. A Medical man at Islington sued a gentleman living at Stoke Newington for £88, the balance of an account for Medical attendance for some years past. The defendant resorted to the ungracious plea of the Statute of Limitations. This, however, related only to £24, and there was a doubt whether even this sum was so barred. There was no defence to the remainder of the claim. A bill of exceptions was tendered to the judge's ruling; but as the judge perceived and observed that the only object was to gain time, and that the defendant could not prosecute the bill without finding substantial security, he suggested that that object would be attained by his giving such security upon the execution being stayed for a year; to which both parties agreed. The plaintiff is thus saved any further expense, but the ungrateful defendant obtains a further delay of twelve months.

AÉROTHÉRAPIE BY BATHS OF COMPRESSED AIR.

Is there amongst our readers a Doctor "out at grass" who is looking for some speciality to waft him into practice? If so, let him look through an article on compressed air baths by M. le Docteur Raoul Le Roy, in the number of the *Bulletin Général de Thérapeutique* for March 13. All useful inventions, says the author, are the product of France. Baths of compressed air were first proposed by Tabarié in 1838, and taken up by Pravaz, Junot, and Bertin, of Montpellier. Nevertheless, the idea was neglected at home, and wandered abroad, where it pined "dans la funeste adoption des idées Allemandes"—in the hands of persons incompetent to deal with it; now, however, it is again brought into notice in its native soil with some chance of scientific appreciation. It is chiefly as a remedy for the *cachexie urbaine* that M. Le Roy suggests it; and surely there are few more terrible sufferers from this than some of the inhabitants of the house-covered province which we call London. Want of sunshine, of proper food, and of proper exercise all conduce to the anæmia of crowded cities, but more especially such circumstances as conduce to the defective elimination of carbonic acid and admission of oxygen, which latter is required to complete the conversion of the white leucocytes into red globules. Hence M. Le Roy justly claims for mountain air the function of liberating the excremental carbonic acid, and thus as acting as a better hæmatic remedy than any drug or diet. By a singular transition, he passes from the virtues of air that is expanded to those of air which is compressed. The bath of compressed air has been used at various therapeutical establishments in this country for the opposite conditions of phthisis and pulmonary emphysema, but we are not aware that it has been used for the urban cachexy; but M. Le Roy propounds the theory that it has the same expansive power on the pigeon-breasted townsman that the elevation has on a mountaineer. It is not a high degree of compression which is needed—from four- to eight-tenths of an inch is enough; this is attained by forcing air into a neatly fitted metallic chamber, large enough to hold two persons, who may read, chat, and sleep whilst their air-cells are expanding and their tissues gaining strength under the dose of compressed oxygen. What this treatment may do in pulmonary disease we cannot say, but for inactive respiration we should say to the Londoner—Try Margate.

THE CHELMSFORD DISPENSARY AND INFIRMARY.

It is seldom that matters relating to our Profession are understood by the public, and more seldom still that they are commented upon by the general press in a spirit of justice and moderation. As a rule, we are regarded as always in the wrong. We are justified, therefore, in drawing attention to an able leading article in the last number of the *Chelmsford Chronicle*, respecting the dispute at present going on at the Chelmsford Dispensary and Infirmary. It appears that the Infirmary was established, as it were, on the Dispensary, Mr.

Gilson and Dr. Nicholls being Surgeons to the joint institution. It was customary to present each of these gentlemen with an annual gratuity of twenty guineas. Mr. Gilson always returned the gratuity as a donation to the funds of the institution. This gentleman withdrew from his appointment at the end of last year. The committee thereupon issued a circular to the Medical gentlemen of the town, intimating that it was their wish "to obtain gratuitous Medical advice for both institutions." One gentleman, and one only, accepted the offer, and this gentleman, Mr. Carter, was accordingly elected. It was scarcely likely that a paid and an unpaid officer should cordially agree, and hence the disagreement to which we referred in the last number of this journal. The *Chelmsford Chronicle* regrets this disagreement, and sees results from it perilous to the welfare of the institution. The writer remarks, with much justice and force, that such a condition of the Medical staff could not have been produced had the Medical gentlemen of the town been true to their own interests and to the interests of the Profession. A meeting should have been called of the Profession in Chelmsford, and a vote taken as to the advisability or otherwise of accepting the offer of the committee. Upon the vote so taken the Medical gentlemen would have acted, and hence no cause of disagreement could have occurred. The *Chronicle* makes some judicious remarks on the entire question of paid and unpaid Medical services to charities, and is in favour of the services being paid for. It condemns, but in qualified language, the entire proceedings of the committee, and thinks that they were not fair to either of the Medical gentlemen involved in the transaction. It suggests the calling of a public meeting of the governors of the institution to discuss the entire question.

A GOOD EXAMPLE.

The Hackney Board of Guardians have set a good example with reference to vaccination. They have, with the consent of the Local Government Board, given gratuities varying in amount from five to ten guineas to four of the District Medical Officers of the Union, who are not public vaccinators, for the extra duties performed by them during the prevalence of the late epidemic.

CERTIFICATES OF DEATH.

It is the bounden duty of a Medical Practitioner, before giving a certificate of the death of any person who has died under his care, to satisfy himself of the correctness of the facts to which he certifies. This is not only necessary to insure correct returns to the Registrar-General, but as a preventive of crime. We fear these facts are not regarded in their important bearings as they should be in very many instances. A certificate of death is frequently given as a "mere matter of form," and nothing more. Such a practice cannot, we think, be too strongly condemned. The following case in illustration is worthy of record:—At an inquest held on Monday by Dr. Lankester, at the Marylebone Workhouse, on the body of a boy aged 16 months, son of a tradesman in Gilbert-street, Clare-market, the evidence showed that, owing to some family misunderstanding, the mother took deceased away from home on March 24, and the next day placed him out to nurse. On Thursday he was taken by his grandmother to Dr. Clapp, who examined him and found he was dead. The friends then went to a Medical gentleman, the Physician to a charitable institution, who, although he had not seen deceased for five days, gave a certificate to the effect that he expired from hooping-cough, bronchitis, and dropsy. Dr. Clapp said he had made a post-mortem examination. The body was poorly nourished, the brain was congested, and the cause of death was inflammation of the pericardium. The Coroner remarked that no Medical gentleman who had not seen a patient for five days ought to give a certificate. In this case the party did not appear to know even the sex of the deceased. The practice, if carried out, would give rise to grave errors, if not something worse. It was very fortunate that some of the registrars were sharp enough to detect these irregular certificates, and in the interest of the public he hoped a stop would be put to them. The jury thanked the coroner for his remarks, and returned the following verdict: "Death in the streets from inflammation of the pericardium through want of proper Medical treatment."

THE SMALL-POX EPIDEMIC IN DUBLIN.

At the invitation of his Grace the Archbishop of Dublin, an influential gathering of some of the leading Physicians and citizens of that city assembled at the Palace, Stephen's-green, on Monday last, to consider the alarming extent and severity of the present epidemic, and the best means of attempting to arrest its further progress. Among those present were Drs. Stokes, Fleming, Evory Kennedy, Cruise, Hayden, Banks, Head, Aquilla Smith, the President of the College of Surgeons (Dr. Wharton), the Vice-President of the College of Physicians (Dr. Gordon), William Moore, Grimshaw, Churchill, Speedy, and J. Hamilton.

Most of the Physicians present made important statements with regard to the nature and severity of the epidemic now raging, and laid special stress on the inadequate arrangements as yet made, amounting to almost absolute want of accommodation for convalescent patients. It was unanimously agreed that no effectual means can be devised for checking the disease which do not include the separation of the infected from the healthy until the period at which they become incapable of communicating infection has arrived. That there is thus an imperative necessity for the immediate establishment of a convalescent home. It was also resolved that the attention of the public should be directed to the necessity of removing families and individuals out of infected dwellings and rooms to a sanitarium or healthy lodging until the means of disinfection shall have been used. A requisition was presented by those present to the Lord Mayor, requesting him to convene a public meeting of the citizens of Dublin as soon as possible, in order to take these important matters into earnest consideration. We understand that the Lord Mayor promptly acceded to this request, and that a public meeting of the citizens was convened for Friday, the 5th inst. A subscription-list was opened for the purpose of raising a *convalescent* fund. The Archbishop has also asked those present last Monday to meet again at the Palace on to-day (Saturday). It is a matter for hearty congratulation that the citizens of our sister metropolis have at length been thoroughly aroused to a sense of the inefficiency of the existing sanitary arrangements of their city, and of the inadequacy of the accommodation for the victims of small-pox in their midst. There is no period of illness during which patients require more care and attention than that of convalescence; for, leaving out of view the risk to which those not yet attacked by an epidemic are exposed while associating with convalescents, the latter are themselves only too likely to fall victims to typhus fever in their enfeebled and frequently helpless state.

SMALL-POX JOTTINGS.

Small-pox is very prevalent at Dudley; one District Medical Officer alone has seventeen cases under his treatment.——Small-pox in Surrey at last shows signs of abatement in its virulence. In many of the rural districts which were affected with the disease there are no recent cases, but in the suburban and thickly populated localities the disease still lingers. In country districts, where temporary Hospitals were erected for destitute patients, the buildings are now abandoned, and hopes are entertained that the epidemic has been at its worst in the county of Surrey, and is gradually subsiding.——In Rome small-pox has almost disappeared; the few cases still registered are chiefly imported from Naples.——Last week in Islington one case of small-pox was reported, as against two in the previous week.

There had been two deaths from the disease.——Dr. Lankester, St. James's, Westminster, reports that during the past fortnight only one case of small-pox had been brought under notice since the last report, making in all 276 cases and 35 deaths since the beginning of the epidemic.——Small-pox has broken out in Peterhead.——The disease has appeared at Fraserburgh; stringent measures are being adopted to prevent the spread of the disease.——The return for the Mounthooly Small-pox Hospital, Aberdeen, last week shows:—Total number of cases admitted since opening, 148; new cases admitted March 28, 2; number of patients in Hospital, 28; total discharged recovered, 97; total dead, 23.——The Doncaster Board of Guardians recently ordered 250 members of the West Yorkshire Militia assembled at Doncaster to be vaccinated. The cost was £7 10s., and the Board asked the War Office to pay the money; the War Office declined.——In Berlin, in the week ending the 21st ult., 45 fatal cases of small-pox were recorded. ——In Vienna, during the week ending the 16th ult., 49 deaths occurred from small-pox.——Forty fatal cases of small-pox were registered in Bombay during the week ending February 27; thirty of these occurred among the Hindoo population. ——Thirteen deaths from small-pox took place last week in the borough of Sheffield—the lowest weekly number since the middle of October last; of these, six occurred in Brightside, three in Ecclesall Bierlow, and two each in Park and Attercliffe sub-districts.——There were nine cases of small-pox in the Halifax Workhouse Hospital last week. The new borough Hospital for the reception of small-pox patients will, it is anticipated, be completed and ready in the course of the next fortnight.——At the meeting of the Colchester Guardians last week it was reported that there were no fresh cases of small-pox in the workhouse, and that they now had a clean bill of health. It was also stated that there were no fresh cases of small-pox in the town.——Mr. Edward Foster, chemist and druggist, of Preston, was fined at the Preston Police-court, on Monday, 20s. and costs for refusing to get one of his children vaccinated. He had previously been summoned thirteen times for the same offence, and has invariably been fined for his negligence.——Sixty-seven deaths occurred last week in Dublin from small-pox; in the two previous weeks they had been 54 and 32.——In the metropolis last week the deaths from the disease rose to 55 as against 42 and 48 in the two previous weeks. In the four Small-pox Hospitals at Hampstead, Islington, Homerton, and Stockwell 19 fatal cases occurred, against 12 and 14 in the two preceding weeks.—— Among 1616 patients (says Dr. Trench, in his report on the health of Liverpool for 1871) treated for small-pox, the deaths of the unvaccinated and of those on whom vaccination was doubtful were at the fearful rate of 56·4 per cent.; the deaths where one cicatrix was visible, on the other hand, were only 14·9 per cent.; where two cicatrices were visible they fell to 9·8 per cent.; while where three cicatrices were visible they were as low as 7 per cent. Dr. Trench adds, that he traces the importation of the disease to two Spanish sailors, who died of small-pox in Hospital in Liverpool in August, 1870. These two cases were followed by an epidemic which, commencing in the immediate neighbourhood of the Hospital, extended to almost every district of the town, and carried off 2093 persons.

SNAKE-BITES.—HALFORD'S TREATMENT.

Two cases of snake-bite (says the *Melbourne Argus* of February 15) which were successfully treated according to Professor Halford's plan are reported in the country papers. The *Ballarat Star* has an account of a young girl who was bitten just above the ankle by a snake five feet long. She was treated two hours afterwards with doses of ammonia by the mouth; but this mode of administration being insufficient, Halford's method was employed, and the patient was in about eight hours pronounced out of danger. In the other instance, reported by the *Bendigo Advertiser*, a boy was bitten by a whip snake. He lost no time in getting home, and was kept up by strong doses of brandy. On the arrival of Dr. Thom the boy was growing drowsy and vomited violently. Caustic was applied to the wound, and brandy was administered; but, as the patient appeared to be growing comatose, Dr. Thom injected ammonia into one of the leading veins of the arm. The treatment took visible effect, and in a short time the boy was out of danger.

FROM ABROAD.—M. ALPHONSE GUÉRIN'S PANSEMENT OUATÉ—CASE OF IMPALEMENT — TREPHINING IN EPILEPSY FROM INJURIES OF THE HEAD.

M. Fiaux, in an interesting article in the *Gazette des Hôpitaux* (Nos. 22 and 25) calls attention to the eminent applicability of M. Alphonse Guérin's wadding dressing (*pansement ouaté*) in Military Surgery. The experience at the St. Louis during the War of the Commune, carried on under very unfavourable circumstances, exhibited its great superiority in a remarkable manner. Success attended this treatment of the most complicated as well as the most simple wounds, prevention of purulent infection by the filtering action of the wadding being a chief cause of this. The simplicity, facility, and rapidity of this mode of dressing constitute its chief feature, several sheets of wadding and five or six strong rollers being all the apparatus required. The dressing is always applied or renewed elsewhere than in the impure air of the wards. After having washed the stump or wound with tepid water, to which carbolic acid or camphorated spirit has been added, M. Guérin cuts all the ligatures save the principal one close, and fills up the depths with small masses of cotton level with the surrounding parts. Wadding is then applied in sheets or rollers until the part is surrounded by a thick and voluminous cylindrical cuirass, which extends far beyond the limits of the wound. The limb and applied wadding being held by the assistants, the Surgeon next applies a strong resisting bandage, twelve metres in length, in such a manner that after securing the proper adjustment of the wadding by its aid, he employs all the force he is master of in producing compression. However energetic or laborious this may be (never executing it with violence or jerks, however), the elasticity of the wadding renders it painless to the patient, and its being so is the test that a sufficiency of wadding has been applied. M. Guérin regards this "elastic compression" as one of the best elements in the treatment, preventing, as it does, abscess, purulent sinuses, induration, œdema, and other accidents. Under this compression, and in spite of the mass of wadding and bandage which surrounds it, the skin in the vicinity of the wound retains all its elasticity, suppleness, and physiological properties. The dressing once applied, whatever may be the seat, extent, or gravity of the wound, *all pain is immediately suppressed*; and thus, protected by so substantial a covering, the patient can be carried or can walk back to the ward without any inconvenience.

Another peculiarity of this mode of dressing is the rarity of its renewal, this only taking place at periods varying from twenty-five to forty days. At the end of two or three days there is usually some loosening of the bandage, which has to be remedied by the application of a new one, this usually rendering the whole solid enough until the time arrives for its removal. When any of the secretion oozes through the bandage, or air gains admission at its upper part, additional layers of wadding and a new bandage have to be applied. This is a rare occurrence, and is usually due to insufficient wadding having been employed, the bandage not being tight enough, or the meddling of the patient. The dressing is never removed before the twentieth day, and M. Guérin has always regretted when he has yielded to the impatience of the patient, only to find the wound proceeding rapidly towards a cicatrisation that ought not to have been interrupted. No fetid odour attends the non-

renewal of the dressing, and the slight smell of "old linen" which is sometimes present yields to the application of camphor or carbolic acid water. The removal of the dressing is performed out of the ward, and is speedily accomplished until arriving near the wound itself. Here gentleness is required, owing to a more or less firm adhesion that has become established between the cotton and the skin. Abundant washing in tepid water, to which camphorated spirit has been added, may then be required, or even immersion of the part. When the wound is exposed it is found to be granulating, the process of healing having been more rapid than under ordinary dressing. The amount of almost inodorous pus is usually small, even in extensive wounds, while in those of little extent it is usually absent. There are usually no traces to be found of the ligatures.

"Such," says M. Fiaux, "is the dressing of M. A. Guérin. Of simple and rapid application, clean, solid, suppressing pain, and convenient for the patient—whose movements are by it rendered easy and without inconvenience—light, inodorous, and cheap, it requires after its application only intelligent surveillance unattended with fatigue. Then there is its seldomness, thus saving at the same time fatigue and suffering to the patient as well as to the Surgeon, who, as in the late events, may often be overworked and at last exhausted by his labours. Finally, it is a shelter from purulent infection and the perils resulting from the overcrowding and vitiated air of a Hospital. What other mode of dressing will allow of our no longer fearing this overcrowding so sadly inevitable in Hospitals as they are now constructed? What other dressing would allow of our transporting to a distance with more facility and less anxiety and danger patients suffering from dangerous wounds?" He goes on to show how such advantages great as they are in civil practice, are of tenfold importance in Military Surgery.

Dr. Sargent communicated recently to the Boston Society for Medical Improvement (*Boston Journal*, February 22) an interesting account of a post-mortem examination in a case of impalement which he had described twenty years before. A woman, 37 years of age, sliding down some hay from a loft (August 7, 1851), became impaled on the handle of a pitchfork, which entered the body through the vagina to a distance of twenty-two inches, where it was arrested by the upper left rib, which it broke, and by the woman's feet reaching the floor. There was no injury to the bladder, uterus, or intestine. Blood flowed from the vagina, and there was pain near the injured rib followed by emphysema, and eventually a prominent callus. The pitchfork handle, with its abrupt bloody line twenty-two inches from its rounded end, was deposited in the museum of the Society. The account of her condition until her death on December 29, 1871, is imperfect, and chiefly derived from hearsay statements. It seems, however, that she suffered greatly and for many years with oppression and flatulence and constipation, and sometimes with nausea. She could not lie on her right side or back, and was so tired of lying on the left side that she had sat up at night mostly for nine or ten years. Her last illness attracted the less attention, because her whole life had been one of suffering.

At the post-mortem examination the cavity of the left side of the chest was found to be entirely filled with abdominal viscera—viz., the stomach, the transverse colon, with a few inches of the descending colon, and a considerable portion of small intestine. All these had passed through an opening in the diaphragm, at the left of the median line. This opening was an irregular oval, with rounded edges, and occupied a large part of the left half of the diaphragm, being about four inches in diameter. The stomach and intestines in the chest, and the small intestine in the abdomen, were distended with flatus, while the descending colon and the sigmoid flexure were scarcely larger than the finger, and were filled with scybala. One fold of the small intestine in the chest was agglutinated by a red, rough thickening of its peritoneum, so as to present a mass which was at first mistaken for the spleen, which organ was afterwards found in its normal position. The peritoneal coat of the intestines was generally reddened. There were adhesions midway up the left costal pleura, between it and the omentum. The transverse colon and a fold of the small intestine were crowded against the clavicle and the first rib. The callus of the fracture of this was quite conspicuous. The left lung was compressed to the thickness of the hand, and was permeable to air only at its anterior surface and lower lobe—in all for a space of perhaps five inches by one. It had also contracted adhesions to the stomach. The heart was crowded to the right of the sternum, and was entirely healthy, as was the right lung. On removing the contents of the abdomen, a large irregular cicatrix was quite obvious in the peritoneum of the left uterine cul-de-sac.

"The case is interesting," Dr. Sargent observes, "as being, perhaps, unique. The treatment was only by enforced rest, the chest being supported firmly by a broad bandage; and the system was saturated by morphia—three grains, in one grain doses, having been given within six hours from the time of the injury. . . . Her death seems to have been from peritonitis, which, strange to say, was in the left thorax."

In a paper entitled "Trephining in Epilepsy," Dr. Boutelle, of Boston, endeavours to lay down some rules of practice in a small and interesting class of cases. These are instances, twelve in number (which have occurred in the Massachusetts General Hospital since its foundation), of the trephine having been employed for the relief of epilepsy ensuing on fracture of the skull with depression. The clinical histories of these have been very similar—viz., a blow on the head, producing fracture with depression; recovery from the immediate effects of the accident; then, after an interval of health, varying from a few weeks to many years, epileptic or epileptiform seizures begin or continue, with longer or shorter intervals, but generally increasing gradually in frequency and violence. Of the twelve operations performed during 1832-70, seven failed, while four were followed by cure and one by relief. In most of the fatal cases death took place shortly after the operation from acute meningeal and cerebral inflammation, accompanied by abscess of the brain or sloughing of the membranes. In four cases the operation was followed by a rapid succession of fits, succeeded by hemiplegia and coma. In three cases the dura mater was so adherent that it was unavoidably torn. It is to be observed, also, that of the four reported cures the histories of three of the patients continued only for a few weeks after the operation. The following are Dr. Boutelle's conclusions, so far as this scanty material allows of any such being drawn:—1. The operation promises a fair chance of success, and, unless contra-indicated by an excessively feeble state of the patient, ought always to be performed. 2. It requires dexterity and the greatest caution on the part of the operator, owing to the fact that the membranes are frequently adherent to the depressed bone, and that the slightest laceration greatly increases the chance of death. There is also much uncertainty, before making the incision, as to the extent of the depression and condition of the parts. 3. The depression must be entirely removed, as any projection remaining would nullify the benefit expected. 4. The wound should be kept open to allow the freest possible discharge of pus. 5. The knowledge of the possibility of epilepsy in after life, in consequence of injury to the cranium, should make the Surgeon especially careful, in cases of recent fracture of the skull, to elevate every existing depression, and remove all fragments and spicula.

From the Cape we learn that reports from the diamond-fields state that the rains have set in, and that sickness prevails extensively and very often fatally.

PHYSIOLOGY AT THE ROYAL INSTITUTION.

In his fourth and fifth lectures on the Circulatory System, Dr. Rutherford explained the innervation of the heart. To show that the heart contains within itself all the machinery necessary for its motions, the heart was removed from a frog and laid upon a slip of glass. The motions of the heart were demonstrated upon a screen by means of the electric light. To show that all the machinery is not found in every part of the heart, the apex of the heart was cut off. The apex was then seen to lie motionless, while the base went on beating rhythmically as before. The motionless condition of the apex was ascribed to the apex having been cut off from the influence of the ganglia, which are at the base of the heart, and which are essential for the heart's action. The heart's rhythmical motions may be regarded as probably due to the periodical discharge of nerve force within the nerve-cells of the heart. It appears most probable that nerve force is being continually evolved within the intracardiac nerve-cells, and that this force excites the nerve-fibres at intervals, probably because ere it can do this it must attain to a certain degree of tension. The influence of various circumstances upon the rapidity of the heart's action was considered. The action of a frog's heart was accelerated by the addition, and retarded by the withdrawal, of heat. This experiment (Cyon's) was shown upon a screen. The influence of the cardiac branches of the sympathetic and of the vagus was discussed. The inhibitory influence of the inferior cardiac branch of the vagus was demonstrated. The heart of a frog was exposed, and a lever in connexion with a movable mirror rested upon it. A beam of light thrown upon the mirror rendered evident to all the heart's motions. The lower end of the vagus was galvanised, and the heart brought for a time completely to a state of rest. After alluding to the various influences which stimulate the inhibitory and the accelerating nerves of the heart, and to the condition of fainting, the lecturer demonstrated the action of the valves of the heart, the phenomena of the pulse and the blood-pressure, by means of several models invented by him with a view to facilitate the study of these subjects. The method of estimating the blood-pressure by means of the hæmodynamometer was demonstrated. The fact that the blood-pressure is greater in the arteries than in the veins was shown by experiment to be due to the unequal distribution of the blood. The arteries are more distended with blood than the veins. The blood is heaped up in the arteries because the small arteries resist its exit. It was shown that the amount of the arterial pressure depends chiefly upon the rapidity with which the blood is sent into the arteries by the heart, and the rapidity with which it escapes into the veins. The faster it flows into the arteries, and the slower it flows out of them, the higher does the pressure within them rise. The variations of the pressure in various parts of the body, due to alteration of position, were demonstrated. It was shown by means of a model how the blood-pressure in the head rises when the feet are raised or the head lowered, etc. The cause of the pulse was explained. It was shown that when a fluid is jerked at intervals through a bent elastic tube the tube tends to straighten itself at every projection of the fluid. That this takes place within the body was demonstrated by means of the following experiment:—A man was placed upon a chair in a sitting posture, and his legs crossed in the usual fashion. In such a case the foot of the pendent leg is jerked forwards at every beat of the heart. This fact was exhibited to all by resting a lever with a mirror upon the foot. A ray of light was reflected from the mirror upon a screen, and the motions of the foot were thereby greatly exaggerated, and so rendered evident. It was explained that the motion of the limb in this case is due to the sudden rush of blood through the popliteal artery, causing it to unbend to some extent, and so drive the foot forwards. Sphygmographic tracings were taken from elastic tubes and from the radial artery. The tracings, taken on smoked glass, were then thrown upon a screen by the electric light. The fact that the pulse-wave takes a certain time to travel through an artery was also demonstrated. Two sphygmographic levers were rested upon a tube filled with water driven through it by means of an elastic pump to imitate the heart. One lever was placed close to the pump, the other at a considerable distance from it. Both levers registered their movement upon a plate of smoked glass, the one lever being placed above the other so that the writing point of the one was precisely vertical to the writing point of the other. The tracings obtained in this way were projected upon a screen, and the retardation of the pulse demonstrated. Ludwig's "stromuhr" or hæmometer was shown and explained. This instrument is for the purpose of measuring the quantity of blood which flows through a bloodvessel in a given time. It is a valuable instrument for enabling us to ascertain the alterations of the circulation through an organ—*e.g.*, the kidney—which may result from stimulating its nerves, the administration of various medicinal or toxic agents, etc. If, in addition to the quantity of blood in a given time, the calibre of the bloodvessel be measured, the velocity of the blood-current may be ascertained by means of this apparatus.

The innervation of bloodvessels was discussed, and the effect upon the bloodvessels of the ear produced by division of the cervical sympathetic was demonstrated in a rabbit.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—At a meeting of the Council of this Association held this evening, the following resolutions were unanimously adopted; and I have been requested to ask you to be good enough to publish them in your this week's issue.

I am, &c., J. Wickham Barnes.

12, George-street, Mansion House, April 2.

1. That the system of Poor-law Medical relief in England and Wales is in the highest degree unsatisfactory, and urgently requires amendment.

2. That, as the provision of drugs by the Medical officer frequently places him in a delicate and false position by provoking a conflict between his interest and his duty, the extension of the Dispensary system to all country towns and practicable rural areas would be most desirable; and that, as the excess of area in many rural districts and of population in urban districts is very disadvantageous to the sick poor by precluding even the possibility of efficient Medical attendance, such excessive districts should be reduced, and in no case allowed to extend beyond the limits already determined by the Poor-law Board—viz., an acreage of 15,000 in rural districts, and a population of 15,000 in urban districts.

3. That it is desirable that the salaries of Poor-law Medical Officers should be placed on a uniform basis, and revised triennially, so that the salaries may be estimated according to the average number of cases annually attended (due regard being paid to area); and that, as the duties of Medical officers are essentially imperial, it is expedient that the whole of such salaries should be paid out of the Consolidated Fund, instead of part only, as at present, or that one-half should be paid from the Consolidated Fund and the other half from a rate distributed over a whole county.

4. That, as the position of the Poor-law Medical Officer is not sufficiently independent of local influences to justify his appointment as sole Health Officer of his district, it is expedient that a superior Health Officer, debarred from private practice and devoting his whole time to the duties of his office, should be appointed to act over a considerable area, the District Medical Officer standing in the position of deputy Health Officer only.

5. That, pending the introduction of the Dispensary system, which, if generally adopted, would amount to a virtual reorganisation of the service, all additional reports and duties to be required of District Medical Officers should be paid for on a basis to be determined by the Local Government Board.

6. That copies of these resolutions be sent to the Medical press, to members of Parliament, and to the President of the Local Government Board.

Unprecedented Absence of Variola in Paris.—M. Besnier, in his report on the Medical Constitution of Paris for the months January and February, 1872, in proof of the extraordinary rarity of variola at the present time, states that the whole of the Hospitals of Paris only returned *one death* for the two months united. In order to show how remarkable this exemption is, he furnishes the returns for the same two months during the ten preceding years, 1862-71. These were 50, 23, 36, 44, 64, 10, 51, 46, 159, and 7.—*Union Méd.*, March 28.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, April 2.

Professor Dolbeau and his Colleagues—A Medico-Political Inquisition.

In continuation of my last on the Dolbeau affair, I have to inform you that, at the request of the Professor himself, an inquiry is being held at the Hôpital Beaujon, presided over by the Count Davilliers, of the Conseil Général de Surveillance des Hôpitanx, and composed of Professors of the Faculty and Medical officers attached to the Hospitals. Another is to be held by the Government; but this, I understand, will not take place before May 1, when the Parliamentary recess will have expired. It is, however, anticipated that, whatever the result of the inquiry, the Medical School will be reopened on Monday next.

Some of Dr. Dolbeau's friends, in their zealous efforts to vindicate his conduct, have very thoughtlessly aspersed the character of some of his colleagues, who they say fled from Paris during the Commune, whereas M. Dolbeau remained at his post. Be this as it may, I think it a pity, even if the above assertion be true, that any allusion should have been made to it, as it cannot in any way serve the cause of M. Dolbeau, and comparisons are always odious. This has excited great indignation among his colleagues and among his Professional brethren in general, and Professor Richet, who was named as one of the runaways, acting as apologist, has sent in a remonstrance to the paper in which the malevolent letter appeared.

AMERICA.

Philadelphia, February 6.

Repression of Quackery and Sale of Bogus Diplomas—The University of Pennsylvania and the University of Philadelphia totally different—Wharton Poisoning Case—Small-pox Epidemic—International Copyright—Medical Literature—Filthy Books—American Medicine.

Several additional signs of improvement are visible in the Medical horizon, so far as the repression of quackery is concerned. Of course the Profession is greatly dependent for this desirable consummation on the integrity and energy of its own members, but without the consentaneous action of the law-making powers its good resolutions cannot be enforced among the masses of the population. It can drive from its ranks those tainted with the breath of suspicion, but cannot shield the unsympathising public—who often look upon a disgraced Physician as a victim sacrificed to the mere refinements and niceties of Professional etiquette—from paying the penalty of their misplaced confidence. It sometimes seems, indeed, that the more criminal a man may be in the estimation of those who have hitherto been his Professional associates, and especially if his iniquitousness has given him no claims whatever to Medical fraternity, the more pertinaciously do the wrong-headed and unthinking of the laity support him. It is a good sign when the people themselves begin to inquire who are, and who are not, the good men and true in the ranks of the Profession. Frequent allusion has been made in the Medical journals, both at home and abroad, to the danger to human life inseparably associated with the unauthorised traffic in Medical diplomas, or, as we more familiarly term it, the sale of bogus diplomas. Although other places have also participated in these nefarious transactions, the superior rascality of men with a local habitation in Philadelphia has attracted attention to this city as the centre for the dissemination of false certificates of Medical graduation broadcast through the country and even to distant lands. New York, vociferous as she always is in her claims for superior enterprise and commercial energy, has on this subject yielded the palm to Philadelphia. The time has now come when the sentiment of all honourable men, in and out of the Profession in this city, must be heard in condemnation of this vile traffic, and when the practice must be summarily checked. Cases have been recently accumulating, which, when massed together, cannot fail to produce a decided impression on the public mind.

In the State Senate of Pennsylvania during the past week, a committee was appointed to examine into all facts connected with the sale and issue of Medical diplomas to persons not qualified by Medical knowledge or education, an Act having been passed by the Legislature last May prohibiting such sale or issue of academic degrees. The institutions particularly referred to in the resolution are "certain Medical Colleges, chartered under the laws of Pennsylvania, and located in Philadelphia, named respectively 'The Philadelphia University of Medicine' and 'The Eclectic Medical College of Pennsylvania.'" The old and honoured University of Pennsylvania, whose reputation is pure, and good name unsullied, has always been naturally sensitive at the existence of a school, pretending to be respectable, but stealing from it almost its very title, merely substituting in its official appellation the name of the City for the State. In other words, speaking of it commercially, it appropriated a respectable trade-mark with which to deceive the unwary, and might have been legally held to strict accountability by its high-toned neighbour had it been deemed expedient to give it the advertised notoriety of a judicial controversy. This confusion of names misled several of your own Medical men, and excited an outburst of feeling from Sir Dominic Corrigan especially, if I remember correctly. The Committee of Senators met in this city last Saturday. It would be well for the Profession in England to be on the alert to detect and punish the corps of quacks set loose among them by the purchase of diplomas here, as it was proved before this Committee that the sale was at least as largely encouraged there as in this country. Letters were read from Dublin, Tyrone, Ireland, London, Yorkshire, and Glasgow, all stating the writers had been approached, both by notes and by word of mouth, and told that if they would pay certain sums they could receive from these agents degrees from any one of the Universities of Philadelphia. They moreover stated that there were in England hundreds of persons claiming to be graduates of the colleges of Philadelphia, and who secured their diplomas by the payment of money. Quite a large number of students come here in the fall, representing that they have purchased in the South and South-West what were called scholarships from $35 to $37 each, under the idea that it was to the University of Pennsylvania that they were really paying the money. In the South merchants are in the habit of obtaining these certificates for a consideration so small that when they sell them, as they soon do, they make a considerable profit on them. It was stated that in the sale of these scholarships and diplomas they have been very successful in covering up their tracks, which makes it difficult to accumulate positive evidence on the subject. There is no doubt that the practice will soon be a thing of the past, and that mere "diploma shops" will enjoy but a brief existence.

The "Wharton poisoning case," as it is generally called, which recently, in a sister State, ended in the acquittal of the accused, is interesting to the Profession everywhere, not only as a *cause célèbre* in Medical jurisprudence, but as furnishing another illustration of the much-to-be-regretted fact that Medical testimony is not infallible. The charge against Mrs. Wharton, that she had poisoned with tartar emetic a personal friend to whom she was pecuniarily indebted, was not substantiated, mainly on account of the disagreement among the Medical witnesses as to the character of the symptoms under which the supposed-to-be-poisoned man laboured, and the overwhelming evidence of chemical experts against the accuracy of the modes adopted by the prosecution's witnesses for the detection of the antimonial poisoning. With this discussion was mingled an examination into the properties of hydrate of chloral and yellow jessamine, both of which had been prescribed for him by the attending Physicians during the illness immediately preceding his death; and it was argued that, instead of falling a victim to the malevolence of a "modern Borgia" (as the press sensationally styled the lady in question previous to the trial), he died a natural death from cerebro-spinal meningitis. This difference of sentiment would have been amusing but for the serious aspects of the case. The term "expert" is not properly restricted in its use, for it has come to be applied in this country to such witnesses as are, in the estimation of counsel, fitted by their special knowledge to prove certain vital facts; but the ability of counsel to determine the degree of expertness is sometimes very limited. Although this recent case called forth some of the best forensic Medical talent in the country, it must have been a surprise to the Profession, as it was an injustice to the more learned men on the witness-stand to associate the term "expert" with all the Medical men examined. A recent writer in one of our Medical journals has justly remarked, in regard to this confliction of testimony, that "the Physician of the present day is in a perpetual state of unpreparedness for the vital questions of the court-

room. The glaring fault to be corrected in this country is the want of a more thorough system of instruction during student-life in the principles of Forensic Medicine." It is certainly the fact that Medical Jurisprudence is usually taught here more as a mere incidental subject, "tacked on here and there to chemistry and Materia Medica in places where it seems to fit, and not as a branch worthy of separate and special study." And yet your own Palmer poisoning case was quite as memorable for diversity of sentiment, although that branch of investigation is doubtless more systematically taught in Great Britain than in this country.

The small-pox epidemic, which has for several months affected the Eastern portion of the United States, is now on the wane, the deaths in New York showing a slight decrease, and those in Philadelphia a falling off of about 25 per cent. Petitions in favour of compulsory vaccination are being circulated, and it is to be hoped that during the present temporary pressure from the prevalence of the disease this measure may be adopted as a relief or protection from future invasions. One would hardly think that politics could become mixed up with such a personal question of human hygiene, and yet it is easy to foresee that even the small-pox might become interesting in that point of view, if the pockets of some of the most corrupt of our legislators could be affected by it. I have previously mentioned that a few unbelievers in vaccination sometimes attempt to unsettle the views of the great majority, but I regret to say that a handful of our own Profession, who should occupy a more advanced position, help to retard any progressive movement in favour of compulsion by their openly expressed doubts of the efficacy not only of revaccination, but even of vaccination. Whatever else their qualifications, they are on this point far behind the spirit of the age.

The oft-recurring agitation on the subject of an "International Copyright Law" is again disturbing the equanimity of Medical book publishers and others throughout the country. So much may be said for and against the passage of such a measure, and indeed has already been said in and out of Congress—in which body the proposition for its enactment has been very recently discussed, or, as we sometimes express it, "ventilated"—that it would hardly be worth our while to enter upon the merits of the case here. In all the arguments of publishers, the sensitive pocket-nerve suffers from a temporary attack of hyperæsthesia, and much allowance should therefore be made for the amount of constitutional irritation developed among this very indispensable class of busy men, when they fear that it may be abruptly punctured. When they hold meetings and pass resolutions indicating that such and such legislation will affect "the interests of the masses," they should add the phrase, "and especially our own," and thus truthfully express the prevailing current of their thoughts. The interests of our own Medical authors are naturally involved in the issue, but these play but a secondary *rôle* in the estimation of those literary accoucheurs, the publishers. The absence of international restriction enables the latter to keep the market well supplied with foreign Medical literature, but the arrangement is hardly a fair one for the authors of either country. It must be apparent to every reader of advertised lists of books that most of the new Medical works either recently issued or announced in this country are reprints. Finding that they can produce books written abroad for no other expense than the cost of printing, binding, and advertising, publishers pass by our own authors, to whom they would be obliged to pay copy-money—very rarely, by the way, even a fair or proportionate sum—or merely call their services into requisition as godfathers to such of their literary bantlings as would be pecuniarily benefited by this additional paternity. If the law should ever compel them to compensate the foreign author for his brain-work, many a creditable native production would see the light, and many a native writer be encouraged whose efforts have hitherto been repressed. There is now, indeed, very little outlet of this kind for American Medical literary talent, especially for the younger members of the Profession, as the book-trade will hardly look at any works that are not "practical," as they are usually called, which are generally emanations from older heads on such subjects as will yield a decidedly remunerative sale to the publisher. To a certain extent the latter is right in this view; especially, as one of the most eminent in that business recently remarked to me, as "there seems to be too little interest among the Medical Profession in anything that does not directly put money into their pockets."

As a specimen of the shape which the opposition to the international copyright has assumed, I may quote from the proceedings of a recent meeting representing the most respectable establishments among the booksellers, binders, and printers of Philadelphia, and following immediately after one held in New York with similar motives. Several Medical booksellers were present; but you will notice that, as a matter of course, the American author is scarcely mentioned. Looking at the matter from their standpoint, however, some of the reasons advanced are certainly forcible, and worthy of consideration. It was said, for instance, that "any legislation recognising the principle of international copyright must necessarily tend, by raising the price of books, to decrease their circulation, thus putting them out of the reach of many people, and greatly thereby injuring the business of all those engaged in the making of books, except the few large capitalists, who will by contracts with the authors have the monopoly of their productions and sale. . . . . This was a scheme to centralise, to put into the pockets of a few what should go into the pockets of the many. The British publishers can publish a book upon beautiful paper, and get it up in a beautiful style suitable for a rich man, but the toiling millions were to be deprived of proper intellectual food by reason of being unable to pay the high prices."

The opposition was mainly based upon the following reasons:—"Thought, until expressed or published, is the property of the thinker. When given to the world, like light, it is free to all. As property, it can only demand the protection of the municipal law of the country to which the thinker is subject. The author of any country, by becoming a citizen of this, and assuming the burdens and performing the duties thereof, can have the same protection that an American author has. The trading of privileges to foreign authors for privileges to be granted to American authors is not just, because the interests of others than they are sacrificed thereby. The good of the whole people demands works shall not be made too costly for the multitude by giving the power to foreign authors to fix their prices here as well as abroad. . . . . The reprints of really valuable works on science, which are now published at prices so low in this country that the day-labourer can afford to purchase them, would be raised by an international copyright, or any proposed modification thereof, beyond his means, and he would be obliged to confine his purchases mainly to cheap literature, not improving to his mind, frequently immoral in its tendency, and inculcating, not rarely, principles dangerous to the peace of society."

I had not intended entering so fully into this question, but it should be of quite as much interest to the Medical Profession as to any other. It is evident that the whole feeling upon the subject turns upon the effect the proposed law will have upon trade, and has very little to do with the absolute rights of either authors or publishers.

It would occupy too much space to dwell in detail on the numerous contributions to Medical literature from English sources which have just been published or promised by our leading bibliopoles. In the list of announcements for the publishing season of 1871-72, William Wood and Co., of New York, specify American issues of Stricker's "Histology" (New Sydenham Society's edition, I presume), T. Grainger Stewart on "Bright's Disease," J. M. Duncan on "Fecundity, Fertility," etc., Wunderlich on "Thermometry" (New Sydenham Society), Watts's "Supplement to the Dictionary of Chemistry," Sydney Ringer's "Handbook of Therapeutics," W. H. Dickinson on the "Kidneys, Hæmaturia," etc., T. L. Brunton on the "Action of Medicines," and other works of interest. H. C. Lea, of Philadelphia, announces Williams on "Pulmonary Consumption," T. Henry Green on "Pathology and Morbid Anatomy," Robert Barnes on the "Diseases of Women," Thomas Bryant's "Practice of Surgery," and new editions of Roberts on "Renal and Urinary Diseases" and Taylor's "Medical Jurisprudence." Lindsay and Blakiston, of this city, also announce Brunton's work, Harley on the "Urine and its Derangements," Burdon-Sanderson and Michael Foster's "Handbook for the Laboratory," D. Campbell Black on the "Renal, Urinary, and Reproductive Organs," Lionel S. Beale on "Disease Germs" and "Protoplasm," Adams on "Clubfoot" and on "Rheumatic and Strumous Diseases of the Joints," Mackenzie's "Pharmacopœia of Hospital for Diseases of the Throat," Dobell on "Winter Cough," Allingham on "Fistula," etc. These may be taken as specimens of our indebtedness to you, the amount of which would puzzle a Geneva Conference, or mystify the wisdom of the most profound arbitrators. The last-mentioned firm, by the way, among other proposed publications, announce an interesting feature in the shape of a posthumous work of the late Professor Robley Dunglison, whose "Medical Lexicon," "Human Physiology," and other standard works are so familiar to the Profession, and who for nearly half a century

honourably occupied chairs in some of the leading Medical colleges of the country. It is a "History of Medicine," founded on his lectures delivered at the University of Virginia a number of years since, when he simultaneously performed the duties of half a dozen men in teaching anatomy, Surgery, the history of the progress and theories of Medicine, physiology, Materia Medica, and pharmacy in that institution.

Several semi-Medical semi-popular works have been put in the market within a few years past, and pushed to immense sales by means of agents and canvassers. Some of these emanate from the pens of men once holding tolerably respectable positions in the Profession; but want of principle, and love of rapidly-gotten, although undeserved, wealth have brought them to this contemptible authorship. They are often men of "battered reputation," as they have been described, who, under the pretended disguise of Medical instruction, are capable of committing any amount of filth to paper. It is our experience in this country that the more objectionable the book—the more profuse it is in elaborate displays of disguised, but transparent quackery that every honourable Medical man would shrink from—so much the more strongly fortified will the author be by an imposing array of the names of clergymen who give the work their recommendation and approval, apparently as cheerfully as if it were a volume of Notes on the Gospel of St. Luke, or a new version of the "Common Prayer-Book." I saw a circular the other day, made up chiefly of a score or two of such endorsements, the writers of which will some day or other be heartily ashamed and confounded, especially if they read the book, which they probably have not yet done; and yet the work was one that they would not dare to show to their wives or daughters, and the name of which they would scarcely whisper to their intimate friends.

Your editorial remarks on "American Medicine" in your issue of January 6 were highly appreciated here as a true recognition of the undoubted advance in Professional culture among the Medical men of this country. We are ourselves conscious of this great improvement, and see almost daily so many evidences of the change to a more refined and more elevated standard from the less cultivated paths in which, in a comparatively new country, the great mass of the Profession at one time laboured, that we naturally feel a certain amount of pride and satisfaction when our onward efforts meet with deserved recognition.

GENERAL CORRESPONDENCE.

POOR-LAW SURGEONS AND MR. STANSFELD'S BILL.

LETTER FROM MR. JAMES MILWARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Many of the objects for which the Poor-law Medical Officers' Association have so long striven are embodied in Mr. Stansfeld's Public Health Bill, the second reading of which is expected soon after Easter. With much that is good it contains some defects which, if the Bill pass in its present state, will inflict grievous wrong upon the already sufficiently ill-used Medical Service. These defects have been well pointed out by the Medical press, and Union Surgeons throughout the country have been invited to adopt a form of petition to Parliament against the unjust clauses. Hitherto the bulk of us have not taken even this small amount of trouble about our own business—not that we disapprove of the tenor of the petition, for that is impossible, but probably because it is imagined that those gentlemen who have already wrought so hard on our behalf may as well do all our work as nearly all. If any faith be yet left in the members of this down-trodden service, let it be put in the doctrine that "they will be best helped who help themselves," and, without delay, let us put in the hands of Dr. Rogers for Mr. Corrance such a pile of petitions as shall really represent our views on this subject. If it be too much trouble for some of our brethren to transcribe the form for themselves from their Medical journal, they shall have a copy on application to

Cardiff, March 27. Yours, &c., JAMES MILWARD.

THE TREATMENT OF SMALL-POX IN THE WEST INDIES.

LETTER FROM DR. R. H. BAKEWELL.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having seen, in the columns of one of the Medical journals, an article by a Physician of Ireland, recommending the use of sulphurous acid in small-pox, administered internally in solution, and inhaled in fumigations, I immediately began to try the plan at the Small-pox Hospital in Port of Spain, of which I am the Medical attendant. The results were disappointing. After trying it in about twenty-five cases I gave it up. It appeared to have no effect whatever on the disease, except in one case. The patient was a negro, and had a minute papular eruption, set as closely as possible, on the legs, thighs, face, and upper extremities. It seemed likely to be a very bad case. The eruption, however, proved abortive, and the man recovered without a bad symptom. As, however, he had good vaccine scars, this case proves nothing.

The treatment I pursue at the Hospital is as follows:—A dose of aperient medicine on admission, if the bowels have not acted for twenty-four hours. If the case is a discrete one, which only one-fifth of my Hospital cases are, no other medicine of any kind is given, unless the case is (for a discrete one) unusually severe. Then a bark draught (tinct. cinchonæ co. ʒj., quiniæ sulph. gr. ij., sp. chloroformi acid. hydrochlor. dil. āā mx., aquæ ʒjss.) is given two or three times a day. The food at first consists mainly of arrowroot, rice, milk, and invariably beef-tea. When the disease has reached the pustular stage I give stout, finding this to act better than any other stimulant in the majority of cases.

The confluent cases are, during the continuance of the eruptive fever, treated with tincture of aconite and nitrate of potash. The power of tincture of aconite in lowering the force of the pulse and lessening the number of its beats is hardly sufficiently recognised. I have employed it constantly for the last fifteen years, and find that in combination with nitre it forms an admirable febrifuge. During the interval (if there is any) between the eruptive and secondary fever, I give no medicine, except a morphia draught at night if required. When the secondary fever begins I give the bark mixture, with the addition of ten to twenty minims of tincture of opium to each draught. This is given every four hours, except when the patient is asleep. I find this combination soothes the restlessness which is so characteristic of the disease, prevents delirium, and enables the patient to tide over the crisis in a state of drowsiness, which, while it does not prevent him from taking nourishment, seems to husband the vital powers, as only opium can do. It is certainly very gratifying to see some of the cases that pull through. Of course they are well plied with liquid nourishment. Bottled stout *ad libitum*, strong beef-tea, egg flip, arrowroot, etc., are given at frequent short intervals. I have at last succeeded, at the cost of several visits at from 2 to 4 a.m., in convincing the night nurses of the necessity of giving nourishment and stimulants in the night, and particularly in the early morning. The general opinion here is that nobody wants, or ought to want, anything to eat or drink in the night.

The standing orders at the Hospital to the night nurses are to give the morphia composing draught whenever a patient cannot sleep. If this fails they are to call me (I reside at the Hospital). I find the most important indication of all is to procure sleep.

I have had an extremely bad class of cases at the Hospital. No less than 17 per cent. have been petechial and hæmorrhagic. All of these have died or will die. Then there is a class of cases which I call "perconfluent"—where the eruption occupies the whole of the face and extremities in one continuous mass, without any shape or form of pock being visible. All of these die. But we have not lost one discrete case, only one semi-confluent case (a child 9 months old), and only six out of thirty-three confluent cases, excluding petechial, hæmorrhagic, and perconfluent cases. A very large proportion of corymbo o cases have come under my notice, and they are very fatal, particularly as they are often combined with the petechial form of disease.

The Hospital consists of an old private house in its own grounds, which is now used only for convalescents. It was at one time much overcrowded, but we had always plenty of ventilation. The outbuildings were also utilised as wards. The new buildings, into which all new cases are put, consist of a series of wooden huts, each thirty feet long, ten and a half feet wide, and ten feet high to the eaves; from these the roof rises about four feet. This seems a small allowance of cubical space; but as the whole of the sides of the building are occupied by windows and doors, the patients are practically living in the open air during the daytime. To provide for ventilation at night, an interval of a foot wide is left between the walls and roof all the way round; and there is a fixed jalousie at the end opposite the door. These huts are placed side by side, and

connected by a covered gallery, in which the patients sit when they begin to get better, and which also form a means of communication for the nurses and attendants. We have nine of these huts, besides the old buildings and a large Hospital marquee bought from the Control Department. Notwithstanding that everything is done to make the patients comfortable, the prejudices of the people are so great that we have a large proportion of empty beds, although people are seen about the streets begging with the small-pox out on them fully! Out of 145 patients admitted, not above a dozen are natives of the colony.

I ought to mention that, after repeated trials of the chloral hydrate, I have given it up as an untrustworthy narcotic in small-pox. I find morphia or "Battley" act better.

Begging you to excuse these few hasty notes,

I am, &c., R. H. Bakewell, M.D.

Small-pox Hospital, Port of Spain.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 26.

T. B. Curling, F.R.S., President, in the Chair.

Dr. Graily Hewitt read a paper "On the Acquired Deformities of the Uterus; their Importance, Effects, and Results: with a statistical account of observations on the subject at University College Hospital from August, 1865, to December, 1869." The object of the author was to demonstrate by facts and observations the importance of acquired alteration in the *form* of the uterus as a disease, and to establish for the *acquired deformities* of the uterus a prominent position in uterine pathology. To establish the frequency of acquired deformity of the uterus, the author brought forward statistics of the whole of the practice in the department for diseases of women at University College Hospital during a period of upwards of four years (1865—1869). These statistics, arranged in tabular form, comprised particulars concerning 1205 patients; from which it was shown that, of these 1205 patients, 714 were affected with symptoms referable, in one way or other, to the uterus. Of the 714 patients presenting symptoms referable to the uterus, the diagnosis of the condition present was aided by a physical examination in 624 cases. In 90 other such cases no examination was made. The 624 cases examined and presenting uterine symptoms are arranged in three classes:—First, general, including 65 cases; second, organic etc., including 182 cases; and third, acquired deformities, or change of position of the uterus, 377—making a total of 624. The first class include absence of uterus etc., 6; amenorrhœa and vicarious menstruation, 9; menorrhagia, 7; peri-uterine hæmatocele, 11; leucorrhœa, 12; hypertrophy of cervix uteri, 18; climacteric disorder, 2 cases—total 65 cases. The second class include fibroid tumour or polypi, 96; cancer, 54; pelvic cellulitis, 32 cases—total, 182. The third class: flexions, 296 (retroflexions 112, anteflexions 184); prolapsus, 81—total 377. From which it was shown that there were very few of those cases presenting uterine symptoms in which the uterus was not affected with a decided change of shape; this change of shape being, in the author's opinion, the underlying and principal element in the cases in question. In the next place the author submitted particulars of each of the 296 flexion cases in a tabular form, comprising the age, condition, and main facts relating to the 296 cases. These cases were then analysed to show the severity of the symptoms and principal effects. The prevalence of *sterility* and the frequency of *abortion* were especially pointed out, and the following results obtained:—Of married there were 235 cases (100 retroflexion, 135 anteflexion). Of the 100 retroflexion cases, 21 were sterile, 12 had had no pregnancy, 9 had abortions but no child; of the 135 anteflexion cases, 60 were sterile, 45 had no pregnancy, 15 had abortions but no child. In reference to the frequency of abortion in the 296 acquired deformity cases, the results were as follows:—Of the 100 retroflexion cases (married), 24 had abortions; total number of abortions was 32; greatest number in one case was 3. Of the 135 anteflexion cases (married), 27 had abortions; total number of abortions was upwards of 54; and the greatest number in one case was 9. Dysmenorrhœa was almost constantly present in these 296 cases of acquired deformity. Menorrhagia was very common. Chronic uterine inflammation was also common, but was evidently secondary to the alteration in shape. When miscarriages were observed, and retention of portions of the ovum occurred, such retention was very generally traced to the existence of flexion. The *varieties* of acquired uterine deformity were then described, referable to two principal causes—bending of the uterus forwards or backwards; the importance of the varying conditions of the uterine walls in regard to density, consistence, and thickness was next indicated; the connexion subsisting between these alterations in shape and the occurrence of prolapsus pointed out; the very important effects on the circulation in the uterus and on the nervous relations and susceptibilities of the organ were also indicated. Together with the paper a series of nearly 100 outline drawings, exhibiting pictorially the diagnosis made at the time of the examination, was laid before the meeting.

Dr. Routh concurred with Dr. Hewitt's general conclusions, but took exception to some of them—such as that anteflexion and retroflexion were the main causes of dysmenorrhœa. In reality there were only a few cases of that kind. Besides, most unmarried women had their uterus more or less anteverted, and in them this condition gave rise necessarily to no discomfort. He did not think the diagnosis of the condition of anteversion difficult. He considered that dysmenorrhœa without flexion was more common than Dr. Hewitt said. The paper did not distinguish between congenital and acquired flexions. He thought the author ignored the former. In these there was often no pain during menstruation, and the same was sometimes true of the acquired condition. It was only when the fundus became inflamed that pain was produced. Some women with flexed uteri were sterile, some not; and the former only because the os was turned in the wrong direction. What was the meaning of "prolapse" as used by Dr. Hewitt? In reality prolapse was rare; the condition commonly mistaken for it—namely, elongation—was not.

Dr. Day asked what were the miscellaneous cases tabulated. He thought that many diseases of the uterine system and of the chest in young women were united or allied. Amenorrhœa was often only a symptom of the general condition.

Mr. R. J. Lee could understand the origin of a retroflexion following on a parturition when the woman gets up too soon. The uterus would then naturally fall backwards. He thought Dr. G. Hewitt referred to those of mechanical origin only. What was the difference between the congenital and acquired conditions?

Dr. Graily Hewitt, in reply, said he was quite aware that slight anteflexion existed in the virgin, or, rather, in the child. If badly fed, it might remain after puberty, but it was not natural in a well-developed young woman. With regard to anteflexion, he did not say the diagnosis was difficult; he only said it was often not made. In almost all the cases of flexion dysmenorrhœa was a marked feature. His experience as to congenital flexions was quite different from that of Dr. Routh. It was true that the painful symptoms only began when the fundus became inflamed, but that occurred in almost every case, and went away when the position was rectified. His sterile cases did not include those who were sterile after the birth of one child. By prolapse he meant a substantial descent of the uterus, and its appearance externally. He agreed with Dr. Day that a goodly number of cases of amenorrhœa in young women were associated with other bodily states. His cases comprehended unmarried who had no pregnancy as well as married. In the former the change in shape was due to a loss of tonicity, or rigidity in the uterus, which allowed it to be moulded into any shape. After that sedentary occupations might cause it to be anteflexed. Flexion was rare without some definite cause.

CLINICAL SOCIETY OF LONDON.

Friday, March 22.

Sir William Gull, Bart., President, in the Chair.

Dr. Southey read a paper "On Two Cases of Persistent Omphalomesenteric Duct, leading to Fatal Intestinal Obstruction." In the first case, a lad aged 16, seized with symptoms of intestinal obstruction suddenly in the night, was admitted into St. Bartholomew's Hospital, and died on the ninth day from the commencement of his illness. The post-mortem examination showed a constriction of the bowel at the

point of departure of a diverticulum passing from the intestine shortly above the ileo-cæcal valve, and attached to the abdominal wall two inches below the umbilicus. The part of intestine between the constriction and the valve was gangrenous and empty, and appeared as if it might have been entangled between the diverticulum and the abdominal wall. The second case was that of a tall girl, aged 13½, who was admitted under Dr. Southey's care with symptoms of general peritonitis and collapse, and a history of intestinal obstruction. She died on the sixth day from the commencement of her illness. The necropsy discovered slight general peritonitis, and the cause of obstruction a constriction of the gut, though not to complete occlusion, at the point of departure of a diverticulum five inches in length, which was attached to the umbilicus. The intestine was so much distended above the constriction that its mucous membrane was in many places split. The portion of the gut between the constriction and the ileo-cæcal valve was congenitally narrowed, but was healthy in appearance and contained fæcal material. These cases suggested that diverticula were sometimes attended by congenital narrowing of the bowel below them, and that they were perilous to life in two ways: First, by the abruptness of the transition in the calibre of the bowel, leading to hypertrophy and dilatation of the gut above, to enteritis, swelling, and obstruction at the seat of constriction; and, secondly, by offering loops in which knuckles of intestine can be entangled and strangulated. The performance of gastrotomy in intestinal obstruction, without symptoms of intussusception, was the treatment urged by Dr. Southey.

Mr. T. Smith, as having seen Southey's first case, and as having considered an operation unjustifiable, begged leave to say a few words. He considered the symptoms as due, in part at least, to enteritis, and the case when he saw it was almost hopeless. A portion of the gut was found inflamed, but it was not found constricted; it was only supposed to have been so.

The President thought that these cases were perhaps of least interest clinically; because, in point of fact, you cannot make an exact diagnosis. He also suggested that the inflammation of the gut might be connected with the congenital narrowing below the duct.

Dr. Powell asked if mere twisting ever produced fatal obstruction. He recalled the instance of a child who went to bed in perfect health, but woke up collapsed, and died in a few hours. The lower two-thirds of the small intestine were congested intensely, but the congestion ceased abruptly a little above the valve, where the gut was pale. There was no band or any other obstruction. He thought the obstruction was due to a mere kink.

Mr. C. Heath thought that the fact of a patient being ill so long without relief should be no reason why a Surgeon should not operate. Matters were much in the same condition now with regard to operating in intestinal obstruction as they used to be in strangulated hernia. Formerly there were all kinds of objections to operate. He could not see why the Surgeon should not open the abdomen, put his hand in, and try what could be done. In ovariotomy they were never perfectly certain of the condition before they made an exploratory incision. That did no harm.

Mr. Maunder was exceedingly anxious that Surgery should do something for these conditions; yet Surgeons were not in the same position as in hernia, for they did not know where the obstruction was. He thought opening and handling dangerous. If anything was to be done, he thought that was simple—a small incision should be made in the abdomen, the gut stitched to it and left alone.

Dr. Buzzard felt strongly that Surgeons might do more good than they did, but he could not agree to Mr. Maunder's proposal. A considerable proportion of individuals do recover, and it would be hard if these had to go about with an artificial anus.

Dr. Bristowe concluded that the only cases for operation were those of constriction by a band, and he thought the diagnosis of these fairly possible; yet Dr. Southey's cases were doubtful. There were, however, certain facts to show there was no intussusception. If the condition depended on constriction, then he would operate.

Dr. Southey, in reply, said the absence of fluid or bloody stools and of flatulent distension made him think there was no intussusception. There were, he thought, about two cases of simple kink a year at St. Bartholomew's. He considered the inflammation of the contracted part of the gut accidental rather than connected with its abnormal condition.

Mr. Teevan read a paper on the Treatment of four cases of Impassable Stricture. In each case, frequent attacks of gonnorhœa had been the cause of the stricture; and it was worthy of note that in no case had an injection ever been used for the cure of the gonorrhœa. The first patient, aged 45, had for many years suffered from severe stricture and frequent attacks of retention. Many Surgeons had in vain tried to pass an instrument. He was ordered to rest in bed for several weeks, during which period Mr. Teevan made many attempts, without success, to get through the stricture. Leeches were then freely applied to the perineum, and afterwards a number quarter silver catheter was successfully passed into the bladder. Gradual dilatation by means of French bougies completely cured this patient. The second man, aged 54, had for ten years passed all his urine through a fistula in the perineum. After a six weeks' confinement to bed, a very small whalebone olivary bougie was passed into the bladder, and the patient was ultimately cured of his fistula and stricture by gradual dilatation. The third sufferer, aged 40, voided all his urine through three fistulous openings in the rectum, perineum, and scrotum. Repeated trials with various kinds of instruments under the very favourable condition of complete and long rest utterly failed; and on January 22 last Mr. Teevan divided the diseased structures in the median line without any guide, and passed a large silver catheter into the bladder. All the urine comes by the penis, and the wound and fistulæ are nearly healed. The fourth case was that of a man, aged 56, who had a similar cutting operation performed on him four years ago for an impassable stricture complicated with fistulæ. The stricture was cured, the fistulæ healed up, and at the present time a large silver catheter can be passed into the bladder with ease.

Mr. McCormac asked whether, in cutting from the anus forward, he introduced a sound, or what afterwards was done.

Mr. Maunder said success in the first two cases was due to patience and perseverance, qualities which he hoped all Surgeons would use. In the others the stricture was, in all probability, not laid open, and most men would be slow to adopt the procedure. For his own part, he preferred puncturing the bladder per rectum. He had found the plan safe and good; the other not so. Moreover, after the retention was relieved, the induration had time to subside, after which an instrument could be passed.

Mr. Heath said there were almost as many ways of treating stricture as there were men. He found Mr. Teevan now used a stiffer instrument to pass the stricture. He would recommend a silver one, which a little pressure may get through. As to the cases with fistula, Syme's method, to which he referred last year, would be available. Cutting in the perineum was not very satisfactory.

Mr. Barwell remarked that both Mr. Solly and Mr. Green used leeches, as did Mr. South, to enable a stricture to be overcome.

Mr. T. Smith mentioned a plan he had adopted. He made the patient keep his water as long as he could, and then, when the patient was making his water, he attempted to pass a catheter. He had not failed in any case.

Mr. Teevan, in reply, said he did not like Syme's plan of lacerating the urethra. He never himself had a death. He generally used filiform bougies, and had tried Smith's plan as well as the rest.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, March 6.

J. Braxton Hicks, M.D. F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—George Bland, L.R.C.P. Lond. (Macclesfield); Alex. Fergusson, F.R.C.S. Ed. (Peebles); Albert Kisch, M.R.C.S.; W. H. Mondelet, M.D.; and Geo. Rigden, M.R.C.S. (Canterbury).

Dr. Heywood Smith exhibited a preparation consisting of a Fœtus at about the fourth month completely enclosed in a Perfect Sac, through the wall of which, at about an inch and a half from its abdominal attachment, the cord passed to the placenta, which was separate, and had the remains of the membranes as usual at its edge. The specimen was interesting in reference to the subject of "false waters," indicating a separate fluid-containing cavity external to the amnion.

Dr. Heywood Smith exhibited the Uterus of a patient who had died four days after delivery of a fœtus at about the fifth and a half month, of secondary hæmorrhage, the cervix uteri having been the subject of cancer. A growth

about the size of a small orange was found growing from the anterior lip of the cervix uteri; the posterior lip was small, but not entirely free from induration. The os uteri was slowly dilated under chloroform, one foot brought down, and the child born alive. In the delivery of the head the carcinomatous mass was protruded from the vulva, and, as was thought best, Dr. Heywood Smith removed it with the écraseur. The uterus contracted well, but hæmorrhage occurred on the third day and again on the fourth, and she never rallied after this. The case opened up a point for discussion—Which was the better practice, to induce premature labour, or to allow the pregnancy to advance to the full time, and if the disease precluded delivery *per vias naturales* to perform the Cæsarian section?

Dr. Phillips said that each case must be judged of on its own merits, but upon the whole he thought the former line of practice the better one. He referred to two cases in which, notwithstanding considerable malignant infiltration of the cervix uteri, very slow dilatation by the elastic bags enabled delivery to be accomplished with a successful issue to the mother as far as the labour was concerned.

Dr. Heywood Smith exhibited a new instrument which he called "Angular Scissors." When they are straight they constitute a pair of scissors similar to those of Sims. They have, however, this advantage: that the small scissors can be bent at any angle with the handles up to nearly a right angle. To accomplish this it has been necessary to make on each leg of the scissors a complicated joint, consisting of three separate movements within the space of an inch and a half. The first of these is the ordinary first joint to connect the scissors with the handles; next comes the hinge-joint by which the scissors are bent at the required angle; then between the pivot-joint and the handles is inserted a rotatory-joint. One of the blades is prolonged into a director point, in front of the other, which has a blunt end. Inasmuch as the scissors may be bent on either side, they will be found useful in dividing the cervix uteri in any position, both on the right and left side.

The President showed a large Fibro-cystic Tumour of the Uterus. (Referred to a committee.)

Dr. A. E. Martin, of Berlin, exhibited the Cephalotribe of Professor Martin, and presented it to the Museum of the Society. The pelvic curve is greater than in the English patterns.

Dr. Martin then read an interesting account of the collection of distorted pelves at Berlin. The classification is based on the resulting deformity, and not on the cause producing it. A large number of photographs of these pelves were exhibited, and casts of several of them will soon be added to the collection of the Obstetrical Society. Dr. Martin then described pelvimetry as practised at Berlin.

Mr. Thomas Bryant read the particulars of a case of Fibro-cystic Disease of the Uterus and of both Ovaries, in which recovery followed the extirpation of the whole. The patient was 26 years of age and unmarried. Menstruation had always been profuse. Fluctuation existed in parts of the tumour. At the operation the broad ligaments were secured separately and the uterus at its neck ligatured in halves. A strong clamp was also put on, and the tumour excised. Recovery was uninterrupted. The clamp sloughed off on the fourteenth day, and in another week all the parts were united. The tumour weighed eight pounds and a half. Portions of the tumour had all the appearances of uterine myo-fibroma, while in other parts there were irregular cystic spaces in the same kind of tissue. The formation of the cysts was well shown to be due to fatty disintegration of the fibrous tissue, with accompanying œdema of certain patches. The ovaries showed the same kind of disease.

The discussion turned chiefly on the diagnosis of uterine from ovarian tumours.

Dr. Bantock advocated the use of the sound as a great help in diagnosis, while

The President remarked that the sound was not always to be relied upon. In one case the patient was put under chloroform to explore the uterus. The sound passed the normal length. The tumour, however, proved to be uterine, and it was found that the uterine cavity was greatly lengthened, but that the pressure of part of the tumour had caused adhesion of the uterine walls, above which there was a cavity containing retained menses.

Mr. Spencer Wells had also found the uterine cavity of normal length in some cases of large fibroids, and in other cases such distortion that a metal sound could not be passed, although an elastic bougie would sometimes follow a tortuous canal. He had seen the uterine cavity elongated to seven inches by adhesion to an ovarian cyst. In many cases complete diagnosis was impossible without exploratory puncture or incision. He had only removed the enlarged uterus and both ovaries once, but he had removed very large fibroid outgrowths from the uterus with more or less of the part of the uterus with which they were connected, alone, or with one ovary attached. One case was completely successful. In another case the patient was almost well, when, more than a month after operation, pyæmic pneumonia proved fatal, the cause having been an abscess in the abdominal wall, while the intra-peritoneal conditions were quite satisfactory. He hardly understood why these operations were not as successful as ovariotomy, and hoped that when the details of the different proceedings were better learnt success would increase.

Dr. Bantock read a paper "On the Use of the Sponge-tent in the Treatment of certain forms of Uterine Hæmorrhage and Menorrhagia, with special reference to the occurrence of Uterine Hæmorrhage in Women residing in Tropical Climates." After briefly referring to the manufacture of sponge-tents, which, he said, should be made without mucilage and of a certain quality of sponge, the author gave details of three cases in which, after all the usual hæmostatic remedies had been tried in vain, the sponge-tent effected a cure. He then entered at some length into the pathology, combating the accepted view that in our country women residing in tropical climates the menorrhagia is due to inflammatory action. He quoted Dr. Graily Hewitt and Dr. Tilt, who support this view. He pointed out the absence of all the usual signs and symptoms of inflammation, and contrasted these, as described by Hewitt and by Scanzoni, with those characteristic of the cases detailed. He expressed the opinion that the condition was essentially one of relaxation, that the muscular tissue lost its tone and allowed congestions to take place. In the cases which he had seen the uterus wanted that firmness which characterised its healthy state, and the mucous membrane covering the os uteri was often so redundant as to seem as if loosened in its submucous connexion. The action of the sponge-tent was described as being probably mechanical and vital—mechanical by compression of over-distended veins and removal of redundant epithelium, and vital by exciting increased muscular action and restoring tone generally. The author referred to the works of Sir James Simpson and Marion Sims, quoting from them instances in which the sponge-tent had proved its remedial powers, though accidentally. No mention of it as a means of cure was made by Hewitt or Tilt, and one of the principal objects of the paper was to rescue the instrument from its inferior position as an aid to diagnosis, and to raise it to the superior one as a remedial agent. He exhibited a card, prepared for him, according to the directions in the paper, by Krohne and Sesemann, containing several sponge-tents and a corresponding piece of uncompressed sponge to each tent.

Only a few minutes were left for discussion, and Dr. Tilt promised to give due attention to the criticisms of the author when he had had a better opportunity of understanding them.

Mr. Scott was unwilling that the discussion should pass without a word of warning on the use of sponge-tents. He would not then enter into the question of their utility in the cases under consideration, but the possible occurrence of metro-peritonitis or cellulitis under their use should never be lost sight of.

Dr. Aveling said that hyperæmia of the uterus was an abnormal state well understood and frequently noticed by writers. It had been described by him at some length in a paper "Upon the Value of Arsenic in Menorrhagia and Leucorrhœa," read before the British Medical Association. He had found arsenic of the greatest service in the treatment of this hyperæmic condition of the uterus, and he would recommend its trial before having recourse to tents, the use of which he and others had known to be followed by fatal results.

OBITUARY.

ROBERT HALDANE PATERSON, L.R.C.S. Edin., L.S.A. and L.M. Edin., etc.,

Died a few days since. He was born and educated in Edinburgh; served articles with the late Mr. S. Watson, Surgeon, Cottingham; and became L.S.A. in 1834. He went to Brigg thirty-eight years ago, and soon established an extensive practice, which he worked until within a few weeks of his death, which took place suddenly at Buxton, where he had gone for the benefit of his health, having for two years suffered from gouty affection of the head. He was eminent as a Surgeon, and acquired a great reputation for his

skill in the diagnosis of disease. He was gentle in manner and prompt in action. In 1868 he received a testimonial of silver from his patients and friends, "in recognition of his valued services in his Profession in the town and neighbourhood of Brigg." Mr. Paterson was universally respected by all who knew him. He has left a widow and seven children, his two sons being in the Medical Profession. He was District Medical Officer to the Glanford Brigg Union, and Public Vaccinator to the Brigg and Broughton District.

WILLIAM PRITCHARD, M.D. Glasg.,

Died, after a short illness, on the 23rd ult., at Partick, where he had resided for upwards of twenty-five years, and was the leading Medical Practitioner there. "He was," says a local paper, "one whose services were equally at the command of the rich and the poor, and who never allowed anything to interfere with the strict performance of his Professional duties. He was a man of warm feelings, a true friend, and unbounded in his kindness and hospitality."

NEW PREPARATIONS.

BUCKLE'S SYRUP OF SEVILLE ORANGE.

(77, *Gray's-inn-road.*)

Mr. Buckle, who represents the culinary or palatable aspect of physic, is always introducing some novel delicacy for use in the sick-room. His latest effort is a syrup of Seville orange-peel and juice, admirably adapted as the vehicle for cod-liver oil, dilute sulphuric acid, or any other tonic and bracing medicine.

NEW BOOKS, WITH SHORT CRITIQUES.

Colburn's United Service Magazine. December, 1871. London: Hurst and Blackett.

*** This number contains an article on the Army Medical Department, which we ought before this to have brought under the notice of our readers. The author is a well-known Surgeon-Major who has served in all climates, and is as competent to wield the pen as the lancet. He sums up thus: "In fact, let the British reformer, as much as he possibly can, leave the Army Medical Service alone. Let it remain full of inconsistencies, and thoroughly British, with as much individual freedom allowed to every member as is consistent with military discipline. Every military Medical officer has two superiors—first, the combatant officer under whom he serves; and, secondly, the Medical man, whoever he is, who is a better Surgeon than himself. There is no occasion to create a third superior, with perhaps neither of these qualifications, by a unification scheme."

The Leavenworth Medical Herald and Journal of Pharmacy. Edited by J. W. Brock, M.D., T. Sinks, M.D., and Robt. J. Brown. Leavenworth: J. C. Ketcheson. 1872.

*** The original communications are scanty, but the editors secure a good selection of second-hand intelligence for their readers in the Far West. A case of puerperal convulsions is recorded in a primipara, aged 18, with smoky albuminous urine. The patient was bled to ten ounces; treated largely with bromide of potass, of which she took one ounce, and inhaled four ounces of chloroform during twelve hours. Then, as convulsions continued, and there were no signs of labour, the hand was introduced into the womb, the child extracted, and, spite of an attack of pneumonia, the patient was well in twenty-five days. The attempt to puff cundurango as a cure for cancer is condemned.

Local Application of Hydrate of Chloral.—Dr. Strother states that thus employed it is of excellent service in "neuralgia, pleurodynia, rheumatism, gastralgia, nausea, and vomiting." A saturated aqueous solution is applied over the seat of pain with slight friction, and glycerine, olive oil, or cream is used as a subsequent dressing. There will in most instances be enough of the chloral absorbed to produce a considerable anodyne effect, in addition to its rubefacient action. —*Boston Journal*, Feb. 22.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 2nd inst., and, when eligible, will be admitted to the pass examination:—

Brayn, Richard, student of King's College.
Burchell, Edward, of the Leeds School.
Cobbold, C. S. W., of St. Bartholomew's Hospital.
Cookson, Hugh A., of Guy's Hospital.
Davis, Arthur Percy, of St. Bartholomew's Hospital.
Duran, Carlos, of Guy's Hospital.
Evans, Henry, of Guy's Hospital.
Forty, Daniel H., of Guy's Hospital.
Foster, Reginald H., of Guy's Hospital.
Frost, William A., of St. George's Hospital.
Garlick, George, of University College.
Groves, James H., of St. Bartholomew's Hospital.
Jones, Cyril L., of Guy's Hospital.
Lang, William, of the London Hospital.
Macaulay, Charles T., of St. George's Hospital.
Mounsten, T. E. W., of University College.
Murrell, William, of University College.
Pike, Joseph B., of St. Thomas's Hospital.
Reid, Matthew, of Guy's Hospital.
Rendall, John, of Guy's Hospital.
Richardson, William B., of the Leeds School.
Sangster, Alfred, of Guy's Hospital.
Sawtell, Henry T., of St. Bartholomew's Hospital.
Scott, Edward, of St. Thomas's Hospital.
Spitta, Edmund J., of St. George's Hospital.
Taylor, Christopher M., of St. Thomas's Hospital.
Tomlin, Robert F., of Guy's Hospital.
Tordoff, Hardy, of the Leeds School.
Wallace, William, of the Manchester School.
Weakley, S. J. J., of St. Bartholomew's Hospital.
Williamson, George E., of the London Hospital.

The following gentlemen passed on the 3rd inst., viz.:—

Andrew, George, student of St. Bartholomew's Hospital.
Atkinson, Francis E., of the Leeds School.
Bingham, Samuel, of Guy's Hospital.
Bond, George H., of Guy's Hospital.
Burgess, Edward J., of St. Bartholomew's Hospital.
Evans, David T., of the Liverpool School.
Ferrier, John C., of Guy's Hospital.
Fry, John F., of Guy's Hospital.
Gray, Alexander, of Guy's Hospital.
Hartley, John F., of University College.
Harsant, William H., of Guy's Hospital.
Kirby, S. J. J., of the Middlesex Hospital.
Lucas, Henry O., of St. Bartholomew's Hospital.
McConkey, Thomas C., of St. Thomas's Hospital.
Mercier, Charles A., of the London Hospital.
Morley, Thomas S., of Guy's Hospital.
Paley, William E., of Guy's Hospital.
Perrin, Alfred C., of St. Thomas's Hospital.
Pughe, R. N. ap T., of the Liverpool School.
Reid, Thomas W., of St. Bartholomew's Hospital.
Roberts, Theophilus L., of the Liverpool School.
Robson, A. W. M., of the Leeds School.
Scott, Thomas B., of St. Bartholomew's Hospital.
Stevens, Alfred F., of St. Bartholomew's Hospital.
Stewart, David D., of the Liverpool School.
Talbot, Joseph B., of the Birmingham School.
Taylor, G. G. S., of the Liverpool School.
Twort, William H., of St. Bartholomew's Hospital.
Verco, Joseph C., of St. Bartholomew's Hospital.

The following gentlemen passed on the 4th inst., viz.:—

Adams, James, student of St. Bartholomew's Hospital.
Alderton, Thomas G., of St. Bartholomew's Hospital.
Barnard, Charles E., of Guy's Hospital.
Boulter, Harold B., of St. Bartholomew's Hospital.
Bubb, Benjamin, of King's College.
Churchward, Albert, of Guy's Hospital.
Clarke, Henry, of Guy's Hospital.
Couldrey, James, of the Charing-cross Hospital.
Edwards, Octavius, of Guy's Hospital.
Hardy, James A., of St. George's Hospital.
Harrison, Charles E., of St. Bartholomew's Hospital.
Jones, Arthur H., of Guy's Hospital.
Lincock, John B., of the London Hospital.
Macready, Jonathan, of St. Bartholomew's Hospital.
Medcalf, Ernest S., of Guy's Hospital.
Mercer, A. R. C., of the Charing-cross Hospital.
Mills, Joseph, of St. Bartholomew's Hospital.
Morgan, David C., of Guy's Hospital.
Morgan, Evan A., of the Liverpool School.
Sheehy, W. H. P., of St. Bartholomew's Hospital.
Smith, Roland D., of the London Hospital.
Sturmer, Arthur J., of St. Bartholomew's Hospital.
Tomes, Arthur, of the Middlesex Hospital.
Wharry, Robert, of St. Bartholomew's Hospital.

Out of the 108 candidates examined, twenty-four having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Anatomical and Physiological studies for three months. Mr. Henry Spencer Smith, F.R.C.S., Surgeon to St. Mary's Hospital, the recently elected member of the Court of Examiners, took his seat on this occasion. It is

stated that another batch of 108 candidates will undergo the written portion of their primary examination this day (Saturday).

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, March 28:—

Bosson, George, Barnstaple, Devon.
Davies, George Augustus, Newport, Monmouthshire.
Grogono, Walter Atkins, Stratford, Essex.
Harvey, William, Gloucester-street, Victoria-park.
Jones, Thomas, Derlwyn, Carmarthen.
McDonogh, Augustus William, Clapham.
Smith, William Robert, Huddersfield.
Spencer, Edward Richard, Keyston, Hunts.
Wardale, Joseph Augustus William, Newport, I.W.

As an Assistant in Compounding and Dispensing Medicines—

Blott, Herbert, Alexander-road, Kilburn.

The following gentlemen also on the same day passed their first Professional examination :—

Fenton, George Frederick, King's College.
Smith, Frank John Shersley, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ARMSTRONG, H. E., M.R.C.S.L., L.S.A.—Lecturer on Botany and Vegetable Physiology at the University of Durham College of Medicine, Newcastle-upon-Tyne.

AYRES, H. M.—Non-Resident Dispenser to the Leamington Provident Dispensary.

CHURCHILL, GEORGE FLEETWOOD, M.B., F.K.Q.C.P.—Assistant-Secretary to the Cow-pock Institution, Dublin.

HILL, J. HODAM, L.R.C.P.—Sole Medical Officer to the St. Pancras Workhouse and Infirmary, King's-road, N.W.

LOCK, J. GRIFFITH, M.A. Cantab., L.R.C.P., etc.—Medical Officer of Health for Tenby.

PHILIPSON, G. H., M.A., M.D., M.R.C.P.L.—Lecturer on the Principles and Practice of Medicine at the University of Durham College of Medicine, Newcastle-upon-Tyne, *vice* D. Embleton, M.D., F.R.C.P.L., resigned.

SINCLAIR, E. B., A.M., M.D.—Secretary to the Cow-pock Institution, Dublin.

SMITH, H. L., L.R.C.S.I., L.K.Q.C.P.I.—Medical Officer, etc., for the Keadue Dispensary District, Boyle Union.

SPENCE, ROBERT, M.B. and C.M.—Medical Officer to the Parish of Lochmaber, Dumfriesshire.

STONE, WILLIAM DOMETT, M.D., F.R.C.S. (Exam.)—Surgeon to the St. Marylebone General Dispensary.

NAVAL APPOINTMENTS.

M'SHANE, CHARLES, Staff-Surgeon to the *Minotaur;* Edward T. Mortimer, Surgeon to the *Pallas;* F. W. Laslett, Assistant-Surgeon to the *Pallas;* Dr. Isaac H. Anderson, Assistant-Surgeon to the *Northumberland.*

BIRTHS.

BRICE.—On March 29, at Standley Lodge, Southsea, the wife of Dr. F. A. Brice, R.N., Surgeon of H.M.S. *Pylades*, of a daughter.

COURY.—On March 29, at S. Brent, Devon, the wife of Thomas Coury, Assistant-Surgeon R.N., of a son.

CRONIN.—On March 28, at Old Manor House, Clapham-common, the wife of Dr. Eugene Cronin, of a son.

GAIRDNER.—On March 29, at 225, St. Vincent-street, Glasgow, the wife of Professor Gairdner, M.D. Glasgow University, of a daughter.

HARMAN.—On April 1, at 2, Salisbury-villas, Gresham-road, Brixton, the wife of John Harman, M.R.C.S.E., of a son.

LONGHURST.—On April 1, at The Vicarage, Dunton Bassett, Leicestershire, the wife of Dr. Arthur E. T. Longhurst, 60th Royal Rifles, of a son.

MARRIAGES.

BROWNRIGG—KEY.—On April 2, at Immanuel Church, Streatham-common, John Annesley Brownrigg, M.D., of Streatham, son of the late Robert Brownrigg, Esq., of Norrismount, county Wexford, Ireland, to Louisa Marian, eldest daughter of Sir Kingsmill G. Key, Bart., of Spencer House, Streatham.

LAMB—FORBES.—On April 2, at St. Mark's, Hamilton-terrace, Cecil Stewart, eldest son of the late John Stewart Lamb, M.D., to Mary Maria, eldest daughter of Wm. N. Forbes, of Carlton Lodge, and Dunnottar, N.B.

NUTT—BLOXAM.—On March 30, at the Church of the Holy Trinity, Hertford-heath, Rothery Nutt, of Clifton Villas, Maida-hill, eldest son of the late Wm. Clarke Nutt, F.R.C.S., of Plymstock, Devon, to Kathleen Laura, second daughter of Alfred Bradley Bloxam, of Heathfield House, Herts.

STROVER—FLOWER.—On March 30, at St. Thomas's Church, Camden-town, Frederick Reginald, eldest son of the late Surgeon-Major T. R. Strover, F.R.C.S., Bengal Medical Service, to Caroline Elliott, fourth daughter of the late William Flower, Esq.

DEATHS.

AIR, MARY, the beloved wife of A. Cummings Air, L.R.C.P.L., etc., and youngest daughter of the Rev. W. F. Tiddy, Camberwell, on March 28.

EASTES, FRANK, the dearly-loved elder son of George Eastes, M.B., L.R.C.S., F.R.C.P., of Albion-place, Hyde-park-square, London, at Folkestone, on April 3, aged 2 years and 4 months.

HENDERSON, WILLIAM, M.D., late Professor of General Pathology in the University of Edinburgh, at 19, Ainslie-place, Edinburgh, on April 1, aged 62.

HESS, EDWIN LEOPOLD, youngest son of Augustus Hess, M.D., after a short illness, on April 1, aged 13 years and 4 months.

KING, MARY JOHANNA, widow of the late John King, Surgeon, of St. John's-wood, and daughter of the late Capt. Ashton, of St. Helena, at Ambleside, Westmoreland, on March 29.

KNOTT, W. P., M.R.C.S., L.A.S., of Bugbrooke, Northampton, at Thame, Oxon, from congestion of the lungs, on March 25, aged 30.

MCGRIGOR, MARY, widow of Sir James McGrigor, Bart., K.C.B., late Director-General of the Army Medical Department, at 4, Upper George-street, Bryanstone-square, on April 1.

MANLEY, LILIAN FRANCES GEORGIA, infant daughter of Mr. W. G. N. Manley, Surgeon Royal Artillery, at Woolwich, on March 31.

WEBSTER, GEORGE, F.R.C.S., after a long and distressing illness, at his residence, 73, Upper Gloucester-place, Dorset-square, aged 63.

YOUNG, GRAYDON HARIX, third and last surviving of the four sons of the late Thomas Young, M.D., formerly Surgeon in the Royal Horse Artillery, at Marlowes, Hemel Hempstead, on March 30, aged 45.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BECKETT HOSPITAL AND DISPENSARY, BARNSLEY.—House-Surgeon and Secretary. Candidates must be duly qualified. Applications and testimonials, on or before April 8, to Messrs. Newman and Sons, Solicitors, Barnsley.

BETHLEM HOSPITAL.—Two Resident Medical Students, who have recently obtained their diplomas to practise Medicine and Surgery. They will be permitted to reside in the Hospital for a term generally not exceeding six months. Applications and testimonials to be forwarded to Bridewell Hospital, Blackfriars, E.C., addressed to A. M. Jeaffreson, Esq., on or before April 6.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Candidates must be duly qualified. Applications and testimonials to Alexander Bottle, M.D., Secretary, on or before April 17.

CARMARTHEN COUNTY AND BOROUGH INFIRMARY.—House-Surgeon. Must be M.R.C.S. and L.S.A. A knowledge of the Welsh language is necessary. Applications to Mr. H. Howell, King-street, Carmarthen, on or before April 10. Election on the 12th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, GRAY'S-INN-ROAD, W.C.—Assistant-Surgeon. Candidates must be M.R.C.S., and must have attended the practice of some Ophthalmic Institution for at least six months. Testimonials, etc., to be sent to the Secretary, on or before April 6.

DENTAL HOSPITAL OF LONDON, 32, SOHO-SQUARE.—Assistant Dental Surgeon. Candidates must be L.D.S. of the Royal College of Surgeons of England. Applications and testimonials to be sent to Alfred Coleman, Esq., Hon. Sec., on or before April 12.

ECHT, ABERDEENSHIRE.—Medical Officer to the Parish of Echt.

KING'S COLLEGE.—Demonstrator of Practical Physiology.

ROYAL SURREY COUNTY HOSPITAL.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before April 16.

SALISBURY INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications and testimonials to be sent to the Secretary, on or before April 11.

STAFFORDSHIRE GENERAL INFIRMARY.—House-Surgeon and Secretary. Candidates must be M.R.C.S. of London, Dublin, or Edinburgh, and possess a qualification in Medicine which will entitle to register. Candidates must attend the Infirmary on Monday, April 22, at one o'clock.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Glanford Brigg Union.—The Broughton District is vacant; area 16,906; population 4563; salary £57 per annum.

Malton Union.—Mr. John Coates has resigned the Leavening District; area 18,380; population 2605; salary £40 per annum.

Portsea Island Union.—Dr. Simpson has resigned the Railway District; salary £90 per annum.

APPOINTMENTS.

Beverley Union.—Wm. Wood, M.R.C.S.Eng., L.S.A., to the Fifth District.

Blything Union.—Edward D. Wallis, M.R.C.S. Eng., L.S.A., to the Fifth District.

Ecclesall Bierlow Union.—John Richd. Taylor, M.R.C.S. Eng., L.S.A., to the Second District.

Elham Union.—Wm. Bishop, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Elham District and the Workhouse.

Holywell Union.—Jesse C. Davies, M.D., M.R.C.S., L.S.A., to the First Division of the Whitford District.

Macclesfield Union.—Alex. Walker, M.B. & M.C. Univ. Aber., to the Whaley District.

Wakefield Union.—Wm. D. Wood, L.R.C.P. Edin., L.R.C.S. Edin., L.S.A., to the Stanley-cum-Wrenthorpe District.

Walsall and West Bromwich District School.—Alfred P. Evans, M.R.C.S. Eng., L.S.A., to the School.

West Derby Union.—George Andrews, M.R.C.S.E., L.R.C.P. Lond., L.S.A., to the Walton-on-the-Hill District.

Dr. Arthur Strange, son of Dr. Strange, of Worcester, has been appointed Medical Superintendent of the Salop and Montgomery Counties Lunatic Asylum, at Bicton Heath, near Shrewsbury.

Radcliffe Studentships have been awarded to Mr. Carey, of Guy's Hospital, and to Mr. Keetley, of St. Bartholomew's.

The Beaumont Medical Society proposes to give a *soirée* at the Vestry Hall, Bancroft-road, on Wednesday, April 10.

Dr. Henderson, lately Professor of General Pathology in the University of Edinburgh, died on Monday morning, aged 62.

The will of Mr. Oswald Copland, of Chelmsford, M.R.C.S. Eng., has been proved under £35,000.

The Monmouthshire Court of Quarter-Sessions has increased the salary of the Surgeon to the County Gaol from £115 to £150 per annum.

The Stocktou Board of Guardians have increased the salary of Mr. Healey, Medical Officer for the Middlesborough South District, from £60 to £80 per annum.

We are happy to see not a single application was made for the vacant appointment of Medical Officer for the Lewtrenchard District of the Tavistock Union, £25 per annum; and it is now proposed to amalgamate it with the Lifton District, making together £58 per annum.

A Cottage Hospital for four beds was opened at East Rudham, Norfolk, on February 27 last, in commemoration of the recovery of H.R.H. the Prince of Wales.

It was resolved, at a meeting of manufacturers of Leeds and neighbourhood, on Tuesday, that the provisions of the Public Health Bill seriously endanger the security of the manufactories of the country, and ought not to pass into law, and that a strenuous opposition be made thereto in Parliament, and such measures adopted as will lead to the withdrawal or modification of the objectionable clauses. A committee was appointed to promote the opposition, and a petition against the Bill adopted.

The *conversazione* at the Medical Club on March 22 was well attended, and the guests had abundance of interesting objects submitted for inspection. Mr. Crosse, of Norwich, contributed the Skull of Sir Thomas Browne, and a Calculus weighing fifteen ounces; Dr. Swetenham, the Skull of Extinct Pigmy Elephant, from Malta; Mr. Frank Buckland and Mr. Critchett, many objects of Natural History; Dr. A. Carpenter, a series of drawings illustrating the Ventilation of Sewers; Dr. Lory Marsh, a collection of Autographs: Dr. Smart, C.B., and Dr. Witt, collections of Works of Art, Virtu, and Ethnological Curiosity.

Royal Institution of Great Britain.—At the general monthly meeting, on Monday, April 1 (Sir Henry Holland, Bart., M.D., D.C.L., President, in the chair), Louisa Lady Ashburton; Charles Balme, Esq.; Mrs. W. Clement Cazalet; Francis Halhed Ward-Jackson, Esq.; Samuel Morley, Esq., M.P.; S. J. Smith, Esq., F.G.S., F.C.S.; C. Whittingham, Esq., were elected members of the Royal Institution.

The Dental Diploma.—Some important alterations have just been made in the regulations relating to the diploma in Dental Surgery of the Royal College of Surgeons, candidates for which will now have to undergo an examination partly written and partly oral, the former comprising General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to the practice of the dental profession. The oral practical examination comprises the several subjects included in the curriculum of Professional education, and will be conducted by the use of preparations, casts, drawings, etc. A ticket of admission to the museum, to the library, and to the College lectures will be presented to each candidate on his obtaining the diploma; thus giving him nearly the same privileges as those enjoyed by members, the only difference being that the latter can introduce their friends. The next examination will be held the same time in June.

Examination Questions.—The following is a copy of the questions on Anatomy and Physiology submitted to the candidates (108 in number) at the primary examination for the diploma of Membership of the Royal College of Surgeons of England, on Saturday last, the 30th ult., viz.:—1. Describe the structure, connexions, and relations of the iris; trace from their origin to their distribution its arteries and nerves. 2. Describe the adult male bladder; its position when contracted and distended, its connexions, and the structure of its muscular and mucous coats. 3. Describe in detail the action of the heart. How do you account for its sounds and impulse? 4. Give the dissection required, and mention in the order in which they appear, the parts that must be removed in order to expose the supinator radii brevis. 5. Describe the pancreas; its situation, shape, and structure, the composition and uses of its secretion. 6. Give the physical characters and chemical composition of urea; state how its presence may be detected in the urine and other fluids.

Composition and Quality of the Metropolitan Waters in March, 1872.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction .	20·23	0·085	0·127	0·003	14·6	3·8
West Middlesex .	20·17	0·055	0·124	0·001	14·9	3·8
Southwark & Vauxhall . . .	20·33	0·079	0·121	0·003	14·8	3·8
Chelsea . . .	20·49	0·079	0·124	0·003	14·8	3·8
Lambeth . . .	20·73	0·081	0·125	0·003	15·0	4·0
Other Companies.						
Kent . . .	26·87	0·018	0·251	0·000	20·2	5·9
New River . .	19·30	0·050	0·124	0·002	14·8	3·9
East London . .	22·00	0·066	0·138	0·002	16·0	4·4

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was turbid—namely, in that of the Lambeth, and the Southwark and Vauxhall Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 101,353,285 gallons; and the number of houses supplied was 493,551. This is at the rate of 31·5 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 26·8 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

The Paris Morgue.—The following corpses, or parts of bodies, have been exposed this year at this mortuary, which is situated behind the garden of the Cathedral of Notre Dame:—45 still-born children, 37 live-born children, 15 mutilated fragments of bodies, and 311 corpses of adult persons.

The New Faculty of Medicine at Nancy.—In conformity with the recommendations of the Budget Committee of the National Assembly, 162,000 fr. have been voted "to maintain intact and establish at Nancy the Faculty of Medicine and School of Pharmacy of Strasburg." The Assembly has refused the supplementary sum of 91,100 fr., which would have been required had the Strasburg staff of Professors been divided between Nancy and Lyons. This diminution has been made in accordance with the Minister of Public Instruction, who reserves to himself a right to make a proposition for a special law for the foundation of a Faculty at Lyons, which he intends advocating with all his power.—*Gazette Hebd.*, March 29.

Professor Dolbeau.—M. Naequet having put a question in the National Assembly to the Minister of Public Instruction in reference to the closure of the Medical Faculty consequent upon the renewal of the tumult on M. Dolbeau's attempt to lecture, M. Jules Simon stated that, while the Professor properly refused to give to the students the explanations they demanded of him concerning his conduct towards the Communists, he had himself demanded that a committee of inquiry should be instituted under the auspices of the Administration de l'Assistance Publique. In reference to the heroic remedy of closing the schools, which is so often resorted to on the occurrence of any insubordinate conduct on the part of perhaps only a minority of students, Professional opinion has expressed itself very unfavourably, as operating injuriously with respect to the studies of the rest of the classes and the general well-doing of the school. The Assembly has appointed May 1 for the discussion of this subject.

The Man with the Iron Jaw.—Monsieur d'Atalie, or, as he is commonly called, "The Man with the Iron Jaw," was presented recently at the Surgical Clinic of Prof. Mears in the Pennsylvania College of Dental Surgery, for the examination of his maxillary apparatus. From early life he has been engaged in a gymnasium, and his first effort to raise heavy weights by his teeth was made three years ago, when he attempted to lift a heavy table; the effort was successful, and now he is able to raise 700 lbs. His maxillary apparatus does

not present any extraordinary development, but, on the contrary, its various parts seem not to have undergone any very full development. He holds the heavy weights by placing the part seized between both the anterior and posterior teeth, so as to employ all the elevators of the jaw. His power does not reside alone in the muscles of the jaw, those of the neck and body playing an equally important part in all his feats of strength.—*New York Med. Record*, March 1.

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon.*

*** Many communications are in type, and shall be inserted as soon as possible, including papers by Mr. Henry Hancock, Mr. Bryant, Mr. Charles Orton, Mr. Metcalfe Johnson, Mr. F. A. Mahomed, Dr. Robert Liveing, Dr. John W. Ogle, and Mr. J. Beswick-Perrin.

How to Extinguish Child-Murder.—"When the day comes that motherhood is deemed the right of all healthy women, and no disgrace attaches to the manner of it, then child-murder and abortion will cease, and not till then." This gem of purest ray serene is taken from the American "Woman's Rights" organ—*Woodhull and Claflin's Weekly.*

Dr. E. Stöhrer's Induction Apparatus and Constant-current Batteries.—Dr. Stöhrer tells us that, as many spurious and faulty imitations of his induction apparatus and constant-current batteries are now offered for sale in England, he desires it to be known that the only agents in England are Messrs. Krohne and Sesemann, 8, Duke-street, Manchester-square, and 241, Whitechapel-road, London; and Mr. J. F. Pratt, 420, Oxford-street, London, who receive the above direct from his manufactory at Dresden. Every apparatus of his manufacture is stamped with his trade mark.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you oblige me by inserting the following questions propounded at the last pass examination at the College of Surgeons, Edinburgh?

Surgery and Surgical Anatomy.

1. Describe the healing process in wounds of veins. Define diffuse phlebitis; its causes, symptoms, pathology, prognosis, and treatment.
2. What is ranula? Give its treatment.
3. Describe a fracture in the lower third of the femur (supra-condyloid)—first, as to age; second, its symptoms; third, cause of the displacement of the fragments. And how do you treat it?
4. Describe disease in the shoulder-joint, commencing in the hard structures; give its pathology and treatment; and describe the operation for excision of the joint.
5. Describe the anatomical structures concerned in the median operation for lithotomy; give the requisite incisions; and what are the advantages of this operation?

Medicine and Materia Medica.

1. Define acute dysentery. Give its diagnosis, pathology, prognosis, and treatment.
2. Typhoid fever; its synonyms, its diagnosis, pathology, prognosis, and treatment.
3. Softening of the brain. Give its causes, diagnosis, pathology, and treatment.
4. What is an emmenagogue? Enumerate the different drugs having that property, with the difference in action of each, and their doses.
5. What is the therapeutical action of nitrate of silver, externally and internally; in what form is it administered; and what is its dose?
6. Give the botanical name of male fern, with its order; what its officinal preparation, its therapeutical action, and dose; and mention the precautions necessary to exercise in its administration.

Midwifery.

1. Give the relative frequency of twins, and the management of such cases.
2. Describe the process of natural labour from its commencement to its termination, and explain what is expected from the Practitioner in its several stages.
3. What are the causes of post-partum haemorrhage? What is its treatment?

Medical Jurisprudence.

1. What is the disease which in female children may give rise to charges of rape? How would you distinguish disease existing under such circumstances from the actual crime?
2. What are the symptoms of poisoning by sulphuric acid? What is the character of the stains upon black cloth? Give the different tests for the poison.
3. What are the chemical tests by which you would conclude that a pistol had been recently discharged?

In addition to the above, the candidates had to undergo a clinical examination of thirty minutes at the Royal Infirmary, and a *viva voce* of an hour and a half at the College.

I have trespassed thus upon your valuable space for the information of those gentlemen who labour under the impression that the Edinburgh Surgical diploma is easier to obtain than our own.

London, April 1. I am, &c., ANGLICUS.

SUPERANNUATION FOR PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the Bill brought into the House of Commons to amend the Poor Law of Scotland the provisions for the appointment of Medical Officers to all parishes and for fixing their salaries are highly approved of by the Medical Officers, but it makes no provision for their superannuation. This omission is rather surprising, since both the Irish and English Poor-law Medical Officers have had separate Bills discussed in Parliament and passed into law. The Medical Officers in Scotland should not let this opportunity pass without petitioning Parliament that superannuation be granted to them. The following is a form of petition, which they may copy or alter as may be advisable, and which, after signing, should be sent for presentation to their own Member, or one of the Members for the Universities, or forwarded to Joseph Rogers, M.D., 33, Dean-street, Soho, London, President of the Poor-law Medical Officers' Association, who has kindly undertaken to put into the hands of a friendly Member all petitions which may be sent to him. This should be carried out without delay:—

To the Honourable the Commons of Great Britain and Ireland in Parliament assembled.

The humble petition of the undersigned showeth—That whereas a Bill, called the Poor-law (Scotland) Amendment Bill, 1872, has been brought before your honourable House which does not provide for the superannuation of Medical Officers who have become incapable of discharging the duties of their office by reason of infirmity or old age, your petitioner prays that the Bill be amended by the insertion of the words "Medical Officer" after the word "inspector" in Clause 37, Superannuations of—Part VII., General Provisions. Your petitioner further prays that no Bill be allowed to become law which does not provide for the superannuation of such infirm or aged Medical Officers.

And your petitioner will ever pray.

This form is for the signature of one Medical Officer only, but by making certain alterations in it, all the Medical Officers of a large town or parish may sign it. This should be done at once and forwarded without delay.

I am, &c.,

2nd April, 1872. A SCOTCH PAROCHIAL MEDICAL OFFICER.

SWINE NUISANCES, ETC.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I trust that the new Sanitary Bill now before Parliament will enable local authorities to prevent the keeping of swine in towns during the summer months—*i.e.*, from April 1 to October 31—or to abolish the nuisances entirely. It generally happens that animals of this description are kept in the most unhealthy and pent-up places, where they become an intolerable nuisance and a corresponding injury to the health of those residing in such localities. A pig-sty is generally placed at the end of a small garden or court-yard, and the houses in the back street (back to back) frequently receive the greater part of the noxious effluvia. To induce persons to come forward and give evidence of the nuisance is often attended with difficulty, owing to the unpleasantness of one neighbour informing, as it were, against another. The food which is given to swine is generally the refuse of vegetable and animal matter, and unless frequent investigations are made by the Inspectors of Nuisances, the disgusting food is kept in a stinking state. Moreover, the manure of pig-stys is generally carried through the dwelling-house, owing to there being no back outlet; and I need not point out that such a state of things is very detrimental to health.

We know not to what extent these so-called minor nuisances create disease, but I cannot resist stating that those who permit nuisances to accumulate, directly or indirectly, so as to foster disease, are morally responsible for the result. If all the minor nuisances were united together and placed before the eyes of those who are ignorant of their existence, the evidence would be irresistible.

The epidemic of cholera and small-pox has done much to prevent human beings dwelling in pig-stys, privies, etc., but much remains to be done by the Legislature to enable local authorities to deal with all nuisances upon the evidence of Health Officers and Inspectors of Nuisances, without calling witnesses to protest against noxious effluvia which are generating from day to day. The enervation caused by the inhalation of such effluvia tends so much, I fear, to drive many of the working classes to excesses in spirituous liquors, though not conscious as to the cause.

In conclusion, I would mention that the window-tax did much to improve the ventilation of houses and to render them cheerful; but in towns there are many blind streets, courts, and alleys which require opening for the free ventilation of light and air. The exorbitant demand which persons make for their property which occludes streets, etc., requires the attention of the Legislature. All pent-up nuisances are more injurious to health than those exposed to a free current of air; hence it is that an open drain or privy, freely exposed to the air, is generally considered less injurious to health than the escape of gases from a covered drain or closet.

I am, &c.,

Southampton, March 25. HENRY OSBORN, M.R.C.P. Lond.

THE BAKER BROWN FUND.

	£	s.	d.		£	s.	d.
Amount previously advertised	76	12	6	Mr. John Churchill, Sen....	3	3	0
Dr. Charles Cogswell ...	5	0	0	Mr. John Churchill, Jun....	2	2	0
Mr. Walter Coulson ...	5	0	0	Dr. Robert Barnes ...	2	2	0
Dr. Grailly Hewitt	2	2	0	Mr. J. T. Clover	2	2	0
Dr. George Johnson ..	1	0	0	Dr. Edward Johnson ...	1	1	0
Dr. William O'Connor ...	1	1	0	Dr. Thorowgood	0	10	6
Dr. Joseph Seaton... ...	3	3	0	Mr. Oscar Clayton... ...	1	0	0
Mr. William Adams ...	2	2	0	A Subscriber	0	5	0
Dr. Radcliffe	2	2	0	Dr. George Bird	0	10	0
Dr. Russell Reynolds ...	2	2	0	Dr. Peter Hood	2	2	0
Mr. White Cooper... ...	1	1	0	Mr. Heather Bigg... ...	2	2	0
Dr. Priestley	2	2	0	Dr. Fuller	2	2	0
Dr. F. G. Reed	2	2	0	Mr. Prescott Hewett ...	3	3	0
Dr. Duckworth	1	0	0	Mr. Cæsar Hawkins ...	2	2	0
Mr. Startin	1	0	0	Mr. Brodhurst	2	2	0
Dr. James Anderson ...	1	0	0	Dr. Hawksley	2	2	0
Dr. A. P. Stewart	1	1	0	Dr. J. W. Ogle	1	1	0
Mr. Spencer Wells... ...	2	2	0	Mr. T. T. Griffith, Wrexham	2	2	0
Dr. C. J. B. Williams ...	2	2	0	Dr. Andrew Clark... ...	2	2	0
Dr. W. J. Little	1	1	0	Mr. Christopher Heath ...	1	1	0
Dr. Charles Hare	3	3	0	R. Q...	1	1	0
Dr. Alfred Meadows ...	2	2	0	Mr. William Acton ...	2	2	0
Mr. Francis Mason... ...	1	1	0	Staff Surgeon-Major Crisp	2	2	0

Subscriptions may be sent to

Dr. FORBES WINSLOW, } Hon. Treasurers.
Dr. CHARLES COGSWELL, }

FATAL EFFECTS OF YEW-LEAVES.

On Friday, March 25, 1774, three children of James Buckley, a labouring man at Longsight, near Manchester, were killed by taking a small quantity of the fresh leaves of the yew tree, or *Taxus officinalis* of Caspar Bauhin

(*Taxus bonata*, Linn.). The oldest child was 5, the second 4, and the youngest 3 years of age. They were all supposed to be affected with worms, and this poison was given them, by the recommendation of some ignorant person, as a powerful remedy for that disorder. The dried leaves were first employed, and a spoonful of them, mixed with brown sugar, was divided into three equal doses, which the children took at seven o'clock in the morning. At eight they had each a mess of pottage, prepared of buttermilk, which, having been kept several days, was become very sour. No complaints were made by the children, nor did any bad effects ensue. Two days afterwards the mother collected fresh leaves and administered them in the same dose as before, and at the same hour. At eight o'clock the children breakfasted of nettle pottage—that is, oatmeal gruel with fresh nettles boiled in it, a mess well known in this country. At nine they began to be uneasy; were chilly and listless; yawned much; and frequently stretched out their limbs. The oldest vomited a little, and complained of griping in his belly, but the others expressed no signs of pain. The second child died at ten o'clock, the youngest about one, and the oldest at three in the afternoon. No agonies accompanied their dissolution; no swelling of their abdomen ensued; and after death they had the appearance of being in a placid sleep. These particulars I learned from the unfortunate parents of the children.—*Percival's Essays*, vol. ii., p. 180, fourth edition.

COMMUNICATIONS have been received from—

Mr. Thomlinson; Mr. Locke; J. D.; A Provincial M. O.; Dr. J. H. Hill; Mr. Stanley Lucas; Mr. Milward; Dr. Williams; Dr. Leslie; Mr. Pearce; Dr. Conradi; Dr. Baker; Mr. Arnott; Mr. Hutchinson; Dr. Galloway; Mr. Manby; Mr. Barnes; Anglicus; Dr. Philipson; Dr. Letheby; Mr. Alexander; Mr. C. Orton; Mr. J. Beswick-Perrin; Mr. T. M. Stone; Professor Flower; Mr. F. A. Mahomed; Dr. Lionel Beale; Mr. H. Morris; Dr. Rutherford; Mr. J. Chatto; Mr. H. Hancock.

BOOKS RECEIVED—

Third Annual Report of the State Board of Health of Massachusetts—How to Cook, by Dr. T. L. Nichols—Lecture on "Some Points for Comparison," by Deputy Inspector-General C. A. Gordon, M.D., C.B.—On the Training of Young Girls for Domestic Service, by F. E. Bree—Annual Report of Newcastle-on-Tyne Borough Lunatic Asylum—Discours, par le Dr. P. Despine—The Western Lancet—Macpherson's Annals of Cholera—Clinical Observations on the Dementia and the Hemiplegia of Syphilis, by M. H. Henry, M.D.—L'Ambulance Militaire de la Rue Violet, par le Dr. C. Girard.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Medical Press—Chelmsford Chronicle—Leeds Mercury—North British Daily Mail—The Cosmopolitan—Medical Temperance Journal—Mental Journal—British and Foreign Medico-Chirurgical Review—Quarterly Journal of Microscopical Science—Food, Water, and Air, April—Melbourne Argus, February 15—The Clinic, March 16—Woodhull and Claflin's Weekly—Monthly Homœopathic Review—Philadelphia Medical Times—Leavenworth Medical Herald and Journal of Pharmacy—Popular Science Review—Monthly Microscopical Journal—Science Gossip—Saunders's News-Letter.

APPOINTMENTS FOR THE WEEK.

April 6. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

8. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Mr. Teevan, "Two Cases of Retention of Urine from Calculus." Dr. Sedgwick, "On the Alkaline Waters of Tarasp."

9. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Dr. Guy, "Statistics and Social Science."

Royal Medical and Chirurgical Society (Ballot, 8 p.m.), 8½ p.m. Dr. Moxon and Mr. Durham, "Case of Abdominal Aneurism cured by Compression of the Aorta." Mr. T. Bryant, "Case of Abdominal Aneurism treated by Distal Pressure."

10. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Epidemiological Society, 8 p.m. Meeting.

Society of Arts, 8 p.m. Meeting.

11. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Dr. Tyndall, "Heat and Light."

12. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Mr. Gant, "On a Case of Spontaneous Gangrene of both Feet from Disease of the Heart—Amputation, Recovery, etc." Dr. Broadbent, "On a Case of Paralysis due to Tumours in Pons and Medulla Oblongata." Dr. Anstie, "On a Case of Lepra Anæsthetica."

Quekett Micaoscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

Royal Institution, 9 p.m. Mr. John Morley, "Rousseau's Influence on European Thought."

VITAL STATISTICS OF LONDON.

Week ending Saturday, March 30, 1872.

BIRTHS.

Births of Boys, 1151; Girls, 1099; Total, 2250.
Average of 10 corresponding weeks, 1862-71, 2252·9.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	822	819	1641
Average of the ten years 1862-71	796·8	770·3	1567·1
Average corrected to increased population	...	...	1721
Deaths of people aged 80 and upwards.	...	...	64

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	1	12	3	..	14	1	4	...	2
North ...	751608	29	17	4	2	21	...	3	2	...
Central ...	333887	4	11	1	..	19	...	2	...	1
East	638928	12	14	3	...	23	2	1	2	1
South	966132	9	9	11	2	36	...	6	3	5
Total	3251804	55	63	22	4	118	3	16	7	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·311 in.
Mean temperature	43·5°
Highest point of thermometer	60·5°
Lowest point of thermometer	26·1°
Mean dew-point temperature	40·1°
General direction of wind	N.E.&S.W.
Whole amount of rain in the week	0·79 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, March 30, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending March 30.	Deaths Registered during the week ending March 30.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2250	1641	60·5	26·1	43·5	6·39	0·79	2·01
Portsmouth ...	115455	12·1	53	60	58·0	24·8	42·0	5·56	1·01	2·57
Norwich	81105	10·9	52	39	58·5	28·5	41·9	5·50	1·62	4·11
Bristol	186428	39·8	116	105	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	51	33	56·9	24·9	41·2	5·11	0·67	1·70
Birmingham ...	350164	31·0	275	151	57·7	29·0	41·8	5·44	0·97	2·46
Leicester	99143	31·0	60	58	60·0	23·5	43·0	6·11	0·88	2·24
Nottingham ...	88225	44·2	58	45	57·1	24·1	41·5	5·28	0·54	1·37
Liverpool	499897	97·9	340	296	59·0	27·6	42·5	5·84	1·25	3·17
Manchester ...	352759	78·6	271	207	64·0	27·0	41·7	5·39	1·05	2·67
Salford	127923	24·7	95	67	63·7	25·5	40·9	4·94	1·07	2·72
Oldham	84004	20·2	56	51	...	...	...	...	...	...
Bradford	151720	23·0	83	102	...	...	...	...	...	...
Leeds	266564	12·4	209	135	57·0	27·0	40·4	4·44	1·12	2·84
Sheffield	247847	10·9	223	141	60·0	28·0	41·0	5·00	1·48	3·76
Hull	124976	35·1	75	57	62·0	25·0	40·6	4·77	1·22	3·10
Sunderland ...	100665	30·4	113	69	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	147	91	50·0	30·0	37·1	2·84	1·91	4·85
Edinburgh	205146	46·3	130	154	45·0	22·0	36·0	2·22	2·20	5·59
Glasgow	489136	94·8	381	322	47·0	24·0	37·0	2·78	0·86	2·18
Dublin	310565	31·9	161	267	58·0	28·0	42·0	5·56	2·08	5·28
Total of 21 Towns in United Kingd'm	7394345	34·0	5199	4091	64·0	22·0	40·8	4·88	1·22	3·10

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·31 in. The highest was 29·60 in. at the beginning of the week, and the lowest 29·10 in. on Saturday afternoon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

HUNGARIAN WINES.

Having for the last ten years devoted all my energies and means to introduce to the favourable notice of the British Public the pure Wines of Hungary—my native country—I gratefully acknowledge that my efforts have been rewarded by a certain amount of present success, with a prospect of its further development under a system of honest and fair dealing—the only legitimate means of upholding and extending the reputation these Wines have hitherto attained.

But I find myself at the same time compelled to warn the Public that certain Firms in London, attracted by my success, do not scruple to imitate my labels, show-cards, price-lists, price-placards, and even the distinctive names of my Wines, and under these disguises to foist upon too credulous consumers an inferior article, consisting partly of wines rejected by me as unfit to be supplied to my customers; one Company, falsely representing itself as Purveyor to the Emperor of Austria, going the length of claiming to have obtained the first prize medal at the International Exhibitions—the last of which was at Paris in 1867, while the existence of the Company itself only dates from January, 1870.

I beg, therefore, hereby respectfully to give notice that my Business has no connexion whatever with any of these Firms or Companies, and that I can only guarantee the pure quality of Hungarian Wines bearing my own label, and having the corks branded with my name in full.

In illustration, I beg to annex copy of a letter officially communicated to me by the Hungarian Government, through the Imperial Royal Consulate-General for Hungary in London, having reference to one of the advertising Firms above alluded to.

I am, respectfully yours,

7, *Mincing-lane, London, E.C., December*, 1870. MAX GREGER (from Hungary).

No. 24411-842.—From the Royal Hungarian Ministry for Agriculture, Commerce, and Trade, to the Honourable Mr. Schaeffer, Aulic Councillor, Imperial Royal Hungarian Consul-General in London.—In reply to your Honour's further inquiry concerning a certain advertising Society in London, I have to observe that no Society of Exporting Wine Growers of such description is known in the country, and that no such Company obtained the First Prize Medal at the International Exhibition, nor are they the direct purveyors to the Emperor of Austria; and that, according to information obtained, the Society signing under such firm in London is formed only of one individual, a former *employé* of the house of Max Greger, of high repute in the Wine Trade, and likewise honourably known throughout Hungary.—The Minister, SZLAVY, m.p.

Pest, December 10th, 1870.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, PULLNA, FRIEDRICHSHALL, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton; R. Ellis and Son, Ruthin; and the Natural Bromo-Iodine Water of Woodhall Spa, Lincolnshire.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

BURN THE "STAR" NIGHT LIGHTS.

PROTECTED BY ROYAL LETTERS PATENT. SPECIALITY FOR THE MEDICAL PROFESSION.

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ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 335.)

PART VII.

PLEURITIC EFFUSIONS—*Continued.*

Fatal Cases. Objects and Plan of the Operation of Paracentesis Thoracis—Successful Cases: Bad Cases Recovering without Operation. Utility of Drainage-tubes. Success of Suction Syringe—Cautions—Cases.

On a rough estimate (for I do not always keep notes of slighter cases) I calculate that quite three-fourths of the pleuritic patients treated in private practice recover under medicinal treatment. I have now to notice those in which surgical aid has been required; and they may be appropriately preceded by some fatal cases, from which we may learn where danger lies.

About two years ago I saw a young lady, near Westbourne-terrace, with extensive effusion in the right pleura from sub-acute pleurisy. Cupping, blisters, and diuretics had been used without making any impression on the effusion. The breath was very short and frequent; but as the patient did not complain of it, and there was great dread of an operation, we thought a few days more might be allowed for the action of the remedies. Before those days were elapsed I was summoned in haste, and found her dying; in fact she died half an hour after my arrival, and before we could get a Surgeon to perform the operation. No doubt it was delayed too long. I found on inquiry that the patient had for the two preceding days been much distressed, and her sleep prevented by increased dyspnœa. Under such circumstances there should be no delay.

About five years ago I was called to St. Leonard's to see a gentleman of 60 with pleuritic effusion of several weeks' standing; and from the increasing pallor, weakness, oppression, etc., I had no doubt it was empyema, and that paracentesis ought to be performed. But there was this difficulty: loud broncho-phony in the affected side, between the fourth and seventh ribs, showed that the lung was adherent there, and would come in the way where the puncture is most properly and effectively performed. It was done at last, and a quantity of offen-sive pus was discharged, but the patient sank the next day. In that case some of the bones of the chest had become carious. Such complications are obviously unfavourable. I met with one such in a patient of Dr. Halley, in whom empyema followed a strain of the back, and was complicated by subcutaneous abscess in that region. Free incisions were made, and large quantities of pus were discharged, but the patient died a week or two after; and as I supposed, two of the ribs were found to be carious.

The only other fatal case of pleurisy within the period that I find recorded is one complicated with angina pectoris.

A gentleman, aged 63, after a warm bath went out at night, and next day was attacked with left pleurisy, and—after some temporary improvement under treatment took place—a fortnight after he died suddenly in an attack of angina. Besides the effusion of serum and lymph in the left pleura, the heart-walls were thin and pale—no doubt with fatty de-generation, but there is no note of the microscope having been used—and the coronary arteries ossified.

Before mentioning the cases treated by paracentesis in pleurisy, I must premise that in the year 1834 my attention was forcibly drawn to the subject in consequence of several unsuccessful cases of the operation occurring in the Hospital at which I was attending. After careful investigation of the subject, I came to the conclusion that with proper precautions the danger might be avoided, and the operation might prove the means of saving life and preventing permanent disease in many instances. My views were published in lectures soon after, and reappeared in the third volume of "The Library of Medicine," which is still accessible. My separate works describing them are long out of print. I then pointed out that the object of the operation was not only to remove the fluid compressing the lung, but also to promote the re-expansion of the lung by natural respiration. The non-admission of air into the pleura thus became an obvious indication, not only on account of the possible injurious effects of the air in irritating the pleura and in promoting the decomposition of the remaining fluid, but chiefly because that air would keep the lung in a collapsed state, and prevent its re-expansion through the natural air-passages. The same consideration pointed out, also, how important it is to perform the operation as early as possible, before the lung becomes bound down by rigid adhe-sions, and its structure injured by long compression.

The plan which I proposed was to prevent the entry of air into the pleura by compressing the chest until the flow from the canula should no longer run freely; then to close the wound, and not till then to remove the pressure, when the walls expanding would fill the enlarged space by drawing air into the previously compressed lung. This partial relief I expected to be suffi-cient for the cure in case of serous effusion; and so experience has since proved it to be in many cases. In case of empyema, I recommended the injection of warm water, pure or medi-cated, to displace the remaining pus by means of a syringe with a double-tubed canula. In this way the place of the pus would be occupied by water, which is more likely to be absorbed; and if more matter continues to form, a weak solution of nitrate of silver or iodine might be injected. "The pleural sac may be treated as an abscess; and if the discharge be un-healthy it is quite proper to correct it, and to promote the heal-ing of the diseased parts by such means as are known to pro-mote granulation and desiccation of suppurating wounds. When the discharge is fetid, it is more decidedly necessary to correct it by injections of chlorinated solutions, mixtures of creosote, or other antiseptic liquids."(a)

Since this period many records of successful operations for pleuritic effusions have been published. One most deserving mention is by Dr. Hamilton Roe, narrating twenty-two cases, seventeen of which recovered.(b)

In July, 1838, the late Dr. Chambers requested me to see a young lady of 14, who had extensive right pleuritic effusion of several weeks' standing, and causing such distortion of the chest that the case had been mistaken for disease of the spine. No improvement followed on the use of ordinary remedies, and Dr. Chambers thought of paracentesis; but that operation had then fallen into disrepute at St. George's Hospital, in con-sequence of a succession of fatal cases, and, knowing that I had been investigating the subject, he called me into consulta-tion. I had no hesitation in recommending the operation, which was performed under my direction by Mr. George Babington, without the admission of any air, and without any unfavourable symptom following. One pint of serum only was drawn off, but the relief was complete, and improvement steadily proceeded from that time. In two months the remain-ing effusion was absorbed, leaving some contraction of the side, which also disappeared in the course of the two years following.

In April, 1851, I saw a gentleman, aged 35, with right pleurisy, which had not yielded to blistering and other reme-dies actively employed for fifteen days. The symptoms were becoming very urgent—the breathing very difficult, disturbing sleep; right side universally dull and enlarged, with inter-costals prominent and fluctuating; some œdema of integu-ments below right mammilla; liver pushed below umbilicus; and heart to left of left mammilla. The chest was tapped, with precautions to prevent the admission of air. Four pints of serum were drawn off; clear, but forming a fibrinous clot on standing. The operation gave immediate relief, with diminution of the distension of the side and displacements. The relief was permanent, and when examined four weeks after the upper parts of the lung were receiving air. The patient was afterwards reported to me as having completely recovered, but I had no opportunity of further examination.

These and similar cases show that, with simple serous effu-sion causing oppression, the operation may be performed with immediate and permanent relief, although little is drawn off, the remainder being more readily dispersed when the breath and circulation are restored to a more natural state.

In empyema the operation is more indispensable; but the amount of relief may be neither so great nor so permanent, and generally either the puncture must be kept from closing by means of a tent, or the operation will have to be repeated after a time. In chronic cases the freer vent by means of a drainage-tube is the best expedient.

(a) "Library of Medicine," vol. iii., p. 129. Since this was published (1840) this practice has been occasionally adopted, and has proved the facility with which carbolic acid and other agents can be injected with beneficial results.

(b) Medico-Chirurgical *Transactions*, vol. xxvii. 1844.

In the spring of 1852 a groom was sent from the country for my advice in a state of extreme distress from large effusion in the right pleura, with signs of extensive displacements. The profuse sweats, fetid breath, great tenderness of the walls of the chest, and protrusion of the intercostal spaces, together with the tympanitic state of the abdomen, left me little doubt that the effusion was purulent, and I advised tapping without delay. Seven pints of highly offensive matter were drawn off, with wonderful change in the condition of the man. He immediately began to eat and drink heartily, and to sleep soundly; and although it was necessary to repeat the operation in two or three weeks, I heard that he entirely recovered and was well some years after. This was an instance of complete success under very unpromising circumstances.

In May, 1855, Mr. Startin called me to a youth of 15 with extensive effusion in the right pleura, pushing the heart to the left of the left mammilla and causing orthopnœa, which was the more serious as there was some effusion in the left pleura also. There was cough with purulent expectoration. No time was to be lost, and by my advice Mr. Startin punctured the right side above the seventh rib, and let out about twelve ounces of pus with considerable relief. In a week the oppression returned, and the puncture was repeated with a larger discharge, which continued afterwards through the opening. The symptoms all ameliorated from this time under nutritious diet, cod-oil, and tonics; but the greatest improvement took place in July, when the patient was removed to the highlands of Scotland, where the discharge soon ceased, the wound healed, and he recovered strength and activity. He has since been enjoying fair health and employed in a Government office. When I examined him within the last year I found the right lung admitting air pretty freely, but there were still some remains of contraction of the chest on the right side, and also of the left front where the heart was displaced.

Without entering into further details of cases, I would state as the general result of my experience that tapping in empyema is likely to be most successful in young subjects, and also when practised early. I know of several instances in which delay has led to much injury of the walls of the chest from the pus perforating the pleura at several points and forming sinuses under the integuments, so that several openings have been necessary, and the tedious suppuration from this spread of disease has prevented the restoration and adhesion of the collapsed lung. In other cases the lung has been attacked; and although some recover when the matter finds vent through the bronchial tubes, yet others have lapsed into phthisis from the injury thus inflicted on the lung. Whenever, therefore, the diagnosis of empyema is clearly established, and the use of the grooved needle may remove all doubt, the operation should be performed without delay—not merely to relieve present symptoms, but to prevent further injury and destruction of the walls and viscera of the chest.

I have met with several cases in which empyema has made its way through the lung, causing violent cough and discharge of matter through the bronchial tubes—in some instances with a favourable result, chiefly in young and comparatively healthy subjects. The following case of recovery is more rare:—A member of Parliament, aged about 50, in March, 1853, consulted me, complaining of great weakness and breathlessness, with cough of about six weeks' standing. The signs indicated effusion in the left pleura, not very copious, as the heart was not displaced; but the sallow pallidity of his skin gave suspicion of the nature of the effusion. He was put on generous diet, with cod-liver oil and tonics, and nine days after began to cough up large quantities of fetid pus—nearly as much as a pint daily for several days. Under the same treatment, however, the cough and expectoration ceased, and he made a perfect recovery; and he has enjoyed fair health and fulfilled his Parliamentary duties ever since.

In other cases the cough and expectoration continue, sometimes becoming very offensive; and from the entrance of air into the sac of the pleura pneumothorax is added to the purulent effusion. Such a complication is by no means promising, and it is rather surprising that such cases should ever recover, yet they do sometimes, when the subject is young and vigorous. It has always seemed to me that recoveries would be made more frequent by making an opening into the chest sufficiently free to permit the offensive matter to escape, and thus to save the lung from the injury inflicted on it and on the blood by the continual passage of decomposing matter through it, and also to save the patient from the distressing and exhausting fits of coughing necessary to expel this matter. In this case we need entertain no fears about admitting air into the cavity of the pleura. Air has already entered from the lung, and done its worst in irritating the pleura and promoting the decomposition of its effusion; and to give a freer vent to this pent-up air, and to drain away the offensive exudation, certainly promise a prospect of relief. It is more than twenty years since I recommended this operation, but I have had few opportunities of putting it in practice.

Two or three years ago, in consultation with Dr. Cowan, of Reading, and Mr. Davies, of Yorktown, I saw a gentleman, between 50 and 60 years of age, who had pneumothorax resulting from empyema having made its way through the lung. The patient was worn down by the severe fits of coughing, ending in the discharge of offensive matter and pus; and the occasional escape of sulphuretted hydrogen through the lung was a frequent cause of disgust and distress. At my suggestion, Mr. Davies made a free opening between the ribs, introducing an indiarubber tube. The operation entirely stopped the distressing cough and expectoration of fetid matter, which afterwards passed through the wound, but the patient's strength had been too much exhausted before the operation, and he survived only a few days. Two cases are recorded by Dr. Goodfellow in the Medical and Chirurgical *Transactions* (vol. xlii.) in which an operation was successful. The disease in these instances seems to have been empyema, which had been partially discharging through the lung, but continued to form and wear down the health. An opening was made into the chest, and, a bent iron probe being passed in and brought to bear on the lowest intercostal space above the diaphragm, a second opening was made there, and the probe brought out, drawing after it a perforated indiarubber tube, which served as a drainage-pipe, permitting the effusion in the pleura to drain off as soon as it formed. This mode of operation appears to me peculiarly well suited for the cases under consideration (empyema discharging through the lung), as it is more likely to save the lung than simply puncturing the chest.

In all cases of empyema discharging through the walls more or less contraction of the side gradually takes place, and in all but young subjects the contraction is permanent, with more or less bronchophony and diminution of the natural breath-sound and resonance on percussion. I have, however, known several cases in children below puberty in whom time and the progress of growth have removed the contraction and restored the lung to its normal state. Take one instance—A boy of 10 years, first seen in February, 1860, a patient of Mr. Malton's, had extensive effusion in the left pleura, which I was soon convinced was purulent, and I strongly recommended the operation. Owing to the unwise timidity of the parents, this was postponed day after day until the matter made its way through the intercostal spaces at several points, and formed a subcutaneous abscess of some extent, which had to be opened in several places, and took many months to heal. Great contraction of the side followed and seemed likely to cause permanent deformity; yet in two years' time the side had almost recovered its normal dimensions and the lung was pervious throughout. This ultimate success shows the elasticity of the restorative powers during youthful growth; but the process of recovery was tedious and anxious, and it was not achieved without the aiding influence of cod-liver oil, tonics, and sea air.

Note added in 1872.—Several instances of the successful treatment of empyema which have occurred in my practice since these lectures were delivered might be added, but as I wish to notice recent improvements in the operation, I shall only refer to one recorded in our recent work on "Pulmonary Consumption," case 89, p. 240. It was that of a young lady, aged 12, a patient of Dr. Stokes, of Canonbury (first seen November 23, 1865), formidable from the amount and persistence of the purulent formation, and even after the operation becoming offensive and making outlets through the walls of the chest and through the lungs, yet ultimately ending in complete recovery. Except a partial contraction of the left side of the chest, when seen about three months ago, she was a remarkably fine young woman, quite free from cough and other chest symptoms, but considerable intraction of the lower left front remains, and no breath-sound below fifth rib. The heart to left of sternum nearly *in situ*.

It is gratifying to me, as one of the earliest advocates of the operation for pleuritic effusions, to notice how much the practice has been taken up and improved of late years. Nowhere has this occurred so largely or so successfully as among our Transatlantic brethren, since Dr. Bowditch has improved the operation by the adoption of a suction syringe to draw off the liquid. Laennec suggested the principle of suction by cupping-glasses after the operation, to promote the re-expan-

sion of the lungs. This suggestion I commended in 1840 as deserving of trial, with modifications. Dr. H. Roe, in his paper in the twenty-seventh volume of the Medico-Chirurgical *Transactions* (1844), mentions a suction syringe used by Mr. Walsh (now of Worcester) to draw air out of the chest after operation. Dr. Bowditch used a syringe of this kind, adapted to the canula, which is furnished with a tap, all fitting air-tight, so that no air can enter, or if by any accident air should get in, it can be pumped out by the syringe. After having performed the operation 250 times, Dr. Bowditch assures us that he never saw any evil or even any very distressing symptom resulting from it, and it proved the means of saving many lives which would not have been preserved without it.

More recently, Dr. Protheroe Smith and M. Dieulafoy have adapted a similar exhausting syringe to a very fine canula, with stilette not larger than an exploring needle, thereby diminishing the pain and the risks of operating. This instrument is called by M. Dieulafoy an "aspirator," and he declares that he is able through the power of the syringe to draw off pus as well as serous effusions; but I should consider a larger canula more sure and less liable to be clogged with the shreds of lymph that are often present in purulent or mixed effusions. An improvement on this instrument by Mr. Weiss, with trocars of different sizes, is now used at the Brompton and other Hospitals, and with satisfactory results.

By proper management with these instruments fluid effusions can be so surely and powerfully sucked out of the chest as to bring a great force into operation to promote the re-expansion of the lung; and it becomes necessary to consider how far to use this force so as not to do violence to any of the delicate structures within the chest. The removal of the pressure of the fluid, if too sudden or carried too far, may cause faintness, or too forcible a rush of air into the collapsed lung, or of blood into the vessels. I remember a case in which severe bronchitis came on after the operation, apparently from this cause, and proved fatal in two days. The coming on of a fit of coughing, or the appearance of blood in the discharging fluid, may be taken as an indication that as much has been withdrawn as is consistent with safety. The operator may also judge by the degree of resistance which he feels to the action of the piston. The strength of the suction power might be still more accurately measured by the mercurial pressure-gauge suggested by Dr. Douglas Powell.

The operation as now performed is so simple and free from risk that it may be recommended generally in those cases of serous effusion which resist Medical treatment beyond the second week in all instances of dangerous oppression; and in all cases of empyema as soon as the more active febrile symptoms have subsided. In chronic or recurring empyema, especially where cough and purulent and fetid expectoration give indication of mischief in the lung, the introduction of the drainage-tube and occasional carbolic acid injections should follow the operation.

On February 28, 1867, I was summoned to a consultation with Dr. Sibson, Mr. Coulson, and Mr. James Lane, in a case of left empyema originating in a pleuritic attack of five weeks' standing. The chest had been punctured in the back a few days before, but only eight ounces of pus were discharged, and the relief was temporary. The oppression was now great, preventing decubitus. Another puncture made in the back the day before had failed to obtain any discharge. I found the left side generally dull, and the heart pushed two inches to right of sternum; but the tympanitic sound of the stomach rose as high as the fourth rib at the side. A small flat trocar was passed into the chest above this rib below the axilla, and there flowed out eight ounces of pus. A suction syringe was then applied by Mr. Lane, who drew off twenty ounces more, the last portions of the matter being deeply tinged with blood. The relief to the breathing was complete; the enlargement of the side was visibly diminished; the heart had receded an inch towards the left; and some pulmonary breath- and stroke-sounds became manifest below the clavicle and above the scapulæ. I did not see this patient again, but I heard that the wound continued to discharge for a month after. He then went to South Devon, and rapidly improved, the side collapsing considerably for a time; but he soon recovered his usual breath and strength, and I heard of him in 1871 in full exercise of his duties as an officer at Aldershot.

I can do no more than mention another interesting case of extensive and recurring pleuritic effusion in a young patient of Dr. Duffin's, repeatedly operated on by Sir W. Fergusson, who, after being for many months in an apparently hopeless state, ultimately recovered.

In conclusion, I would also refer to a paper by Mr. Berkeley Hill in vol. iii. of the Clinical Society's *Transactions*, and to a remarkably successful case of operation with carbolic acid injection by Dr. Theodore Williams in the *Lancet* of February 24 of this year.

(*To be continued.*)

DR. QUAIN'S LUMLEIAN LECTURES, AT THE ROYAL COLLEGE OF PHYSICIANS,

ON THE

DISEASES OF THE MUSCULAR WALLS OF THE HEART.

Lecture III.

Fatty Degeneration of the Heart.

In introducing to his hearers the subject of fatty degeneration of the heart, with which his name is so generally associated, Dr. Quain remarked that for the history of the disease up to 1850 he would refer his audience to his original paper which was published that year in the *Transactions of the Medico-Chirurgical Society*. To what had since been determined in respect to the nature of fatty degeneration he would return, after enumerating the leading anatomical appearances of a heart so affected. The pale yellowish-brown or muddy-pink colour and infinitely various shapes of the fatty patches in the heart in the less extensive forms of the disease were then described, as well as the uniform buff-coloured appearance of portions of the heart more extensively affected with the degeneration, and its other and most significant pathological characters—viz., diminution of consistence and increase of friability—specially dwelt upon. It was shown that the extent and degree of the degeneration varied, as a rule, inversely with each other, and were usually dependent the one on a general and the other on a local nutritive defect. And these were the only differences between the so-called "granular" degeneration of the pale, soft, flabby heart and the complete and extreme degeneration of the fatty heart, the two being identical in their real nature. Dr. Quain next described the microscopical appearances of muscular fibre in a state of fatty degeneration, from the stage where a few minute dots are seen, especially around the nuclei, and of a yellowish colour, to the complete occupation of the fibres by oil globules; the gradual transition of these stages into each other, as the focus of degeneration is approached; and the broken, fragmentary character presented by the tissue when a section has been made of it in this friable condition. The disease is most common in the left ventricle.

The *nature* of fatty degeneration in general, and of that of the heart in particular, was first clearly described and explained by Dr. Quain in 1850, in the paper already referred to. There he expressed his belief that "the molecular fatty matter in the muscular fibre is the product of a chemical or physical change in the composition of the tissue itself, independent of those processes which we call vital." This opinion he supported by three groups of facts, which he was then able to adduce, and to which the advances of the last twenty years have furnished many additions. The first of these groups showed that in dead animal matter removed from the body the place of the nitrogenous elements is found, under certain circumstances, to be occupied after a time with fatty matter, which could not have existed as such during life. Of this the best illustration is the formation of adipocire, in respect of which Dr. Quain has fully shown—first, that in the process as it is seen in nature there is a disappearance of the nitrogenous matters, and an increase of fat; and secondly, that in the process as it may be artificially induced, there is no difficulty in tracing at the same time the physical change of the albuminous tissue experimented on into adipocire, and the microscopical alteration of its elements—*pari passu*—by fatty degeneration, from the first and least to the last and most extreme degree. Analogous to the formation of adipocire from dead animal substances, it is interesting to notice the change of many vegetable matters into oil, and above all the formation of coal from buried plants; so that "it would seem as if England's greatness was founded on the results of a process analogous to fatty degeneration." The second group of facts adduced by the lecturer showed that a similar change into fat occurs in portions of dead animal matter within the living body. The most important illustration in favour of the truth of this statement are the experiments of Wagner and Michælis on the artificial production of fatty degeneration in portions of

healthy tissues introduced into the abdominal cavity of a living animal. These experiments are familiar from their description by Mr. Simon in his article on "Inflammation" in Holmes's "System of Surgery." The same change also occurs in cheesy or "scrofulous" masses. Thirdly, Dr. Quain said albuminous tissues were changed into fatty matter in the processes of nutrition, both physiological and pathological, as is seen in the formation of milk and its homologues, in the development of the compound granular corpuscle, in grey hepatisation of the lung, in fatty Bright's disease, and in the fatty degeneration of physiological involution, as in the uterus, and most probably the heart also, during the puerperal state. It is to the same head of nutritive change—or rather to its arrest—that the remarkable example of fatty degeneration is to be referred which is presented in the tissues of animals dying by phosphorus poisoning. The exact nature of this condition was first clearly recognised by Virchow in 1864; and the immense amount of accurate knowledge which has since been acquired on the subject by the labour of numerous observers, was as recently as last year turned to good account by Bauer and Voit, of Munich, who administered phosphorus experimentally to dogs, and by inducing by this means fatty degeneration of the albuminous tissues, and estimating exactly the ingesta and egesta, were able even to calculate quantitatively the reduction of protoplasm into fat. A full account of these important experiments will be found in the *Medical Times and Gazette* for November 4, 1871.

Having thus discussed the nature of fatty degeneration in general, Dr. Quain turned to the consideration of the circumstances under which the change occurs in the heart. These, he said, while either general or local, are chiefly those of impaired nutrition. The general circumstances are, accordingly, such as slow starvation, phthisis, and hæmorrhages, and, more rapid, diphtheria and fever—as, for example, relapsing fever, in which Dr. Murchison believes that the sudden collapse by which the disease is sometimes fatal is usually traceable to degeneration of the muscular fibres of the heart. Amongst the local causes of fatty degeneration of the heart is the state of the cardiac vessels, whether that of ossification or obstruction, which has been so frequently observed in cases before the Pathological Society, or congestion from dilatation of the right heart. Previous endo- and peri-carditis have also an etiological relation to fatty degeneration of the heart. As regards predisposing causes, the change is two and a half times more frequent in males than in females, is by far more usually met with after the sixtieth year, and, by occurring in half the cases in the lowest classes of society, has an obviously different origin from adipose hypertrophy of the heart, in which the proportions are exactly reversed.

The *effects* of fatty degeneration of the heart are partly recognisable during life, and so are symptomatic of the disease. They might be shortly stated as impairment of structure and of function. The heart is first structurally changed as regards its size. In more than half the number of cases fatty degeneration of the heart is found associated with increased size of the organ, and of the two changes Dr. Quain believes the enlargement to be usually the primary one, the degeneration supervening from imperfect supply of blood, or from instability of the newly added muscle. In some cases, however, the increase of muscle might be secondary—due to an effort at compensatory hypertrophy. In a small proportion of cases the heart is below the natural size. The cardiac texture also is altered in fatty degeneration, as was already mentioned, and one consequence of this is rupture, which was found in twenty-five out of sixty-eight cases, and which might be either complete or only partial. The functions of the heart suffer in fatty degeneration, and most prominently in the way of loss of power, according to the side of the heart which is chiefly affected. To this must be referred the coma which has been frequently described as occurring in the disease, preceded or not by giddiness. This symptom probably depends upon the right side of the heart being chiefly involved. To the same condition are to be referred such other phenomena of the disease as impairment of memory, and pain and other uncomfortable feelings in the head. To affection of the left ventricle, on the other hand, is due the syncope, which is another usual symptom of fatty degeneration of the heart. In some instances the feeling of syncope amounts only to a sense of faintness, but in a large proportion of cases it proves fatal, and that instantaneously; and this *syncope lethalis*, as Dr. Quain proposed to call it many years ago, is responsible for the death of many distinguished men. At this point Dr. Quain drew the attention of his hearers to the occurrence of sudden death in females after delivery; in three such cases he found the heart in a state of fatty degeneration. The interest attaching to these observations consists in this, that the degenerative process is perhaps but an extreme degree of a natural fatty change, which had been already referred to as probably present in the puerperal involution of the heart enlarged by pregnancy. The peculiar affection of the respiration present in fatty degeneration of the heart is another manifestation of interference with the cardiac functions; it is partly a form of dyspnœa and partly that peculiar and well-known disturbance of the respiratory rhythm described by Drs. Cheyne and Stokes. Still another symptom is pain—limited, widely distributed, or so complicated with syncope and dyspnœa that the phenomena resemble those constituting angina pectoris.

In regard to the diagnosis of fatty degeneration of the heart, Dr. Quain insisted on the importance of the Physician taking into account not only the mere physical signs, which indicate little more than cardiac weakness, but also the facts referring to the origin and effects of the complaint. Thus, while the characters of the visible impulse and of the sounds might be of some diagnostic value, the symptoms previously enumerated—the predisposing causes, etc., and such obvious signs of bodily decay as ossification of cartilages, and perhaps the arcus senilis; with the characters of the pulse, so often irregular, weak, and peculiarly altered in frequency—will be far more reliable circumstances on which to base a conclusion.

Fatty degeneration of the heart must be treated according to its cause. If the lesion is the result of impaired nutrition during severe illness, the nutrition must be improved; but, above all, the heart must have rest. Even if the cause is local, the Physician should not despair of being able to benefit his patient. He should diminish the amount of cardiac work directly and indirectly, and improve the condition of the still healthy fibres by tonics. These means, combined with careful dietetic and hygienic measures, would certainly help to prolong life, and possibly even effect a cure.

Rupture of the Heart.

Of this comparatively rare disease Dr. Quain had collected 100 cases.

The anatomical characters of the ruptured spot are by no means always the same. The opening might vary in size from a mere point to more than two inches in one direction. The condition of the edges points at one time to a tear, at other times to a perforation or ulceration, as the exact lesion present. There might be more than one rupture in some cases. A very strongly predisposing cause of rupture of the heart is old age, 63 per cent. of the recorded cases having occurred in persons over 60 years. Rupture is nearly equally frequent in the two sexes. It usually takes place during effort or excitement. The condition of the cardiac tissue is, perhaps, never normal; most commonly the heart is in a state of fatty degeneration. Interstitial hæmorrhage also undoubtedly at times gives rise to rupture. Ulceration frequently leads to perforation; and simple softening, etc., have been also mentioned as causes.

Symptoms previous to those of actual rupture are not recorded as having occurred in the majority of cases; in several it is stated that they were wanting. Often, however, the fatal result was consequent upon symptoms of cardiac disease, such as dyspnœa, palpitation, faintness, and irregularity of pulse, and these either slight or severe. During the occurrence of the rupture the patient suffers from intense distress in the region of the heart, is restless, faint, and pale, and to these symptoms are added dyspnœa, coldness of skin, rapidity and irregularity of pulse, sometimes vomiting, and other nervous symptoms. Death usually follows immediately; yet it is remarkable that one patient lived eight days, one six days, one three days, and five over forty-eight hours from the beginning of the symptoms. This difference in the rapidity of the fatal progress depends much on the seat, size, etc., of the opening. The physical signs of rupture of the heart seem to be increased area of percussion dulness; muffled, distant, and imperfectly developed sounds; and weak, intermittent pulse. According to Dr. Quain's researches, the most common seat of the lesion has been correctly given by most previous observers. Of his cases the left ventricle was ruptured in 76 per cent., and in 45 per cent. on the anterior wall, the right ventricle in 13 per cent., the right auricle in 7 per cent., the left auricle in 2 per cent., and the septum in 4 per cent.

In regard to the condition of the heart on which the rupture immediately depends, it is probably never healthy. As early as 1850 Dr. Quain pointed out the liability of a fattily degenerated heart to rupture; and now he found that in 77 per cent. the organ was in this condition. This result agrees with that of Latham, Böttger, etc., and differs from that of Hope,

Bouillaud, etc., who speak of ulceration as the most common cause.

Rupture of the heart—doubtless always the result of some strain upon the muscular fibres—is of various mechanism. Increased pressure on thin and degenerated walls, or the contraction of healthy fibres around a localised softening, is evidently the immediate cause of the lesion in many cases; in other cases, especially in the left ventricle, it may be that the outer surface of a thick wall tears during strain like the outer circumference of a bent hoop, and the opening extends gradually inwards. In still another group of cases perforation is the cause of the interruption of continuity in the cardiac wall.

Dr. Quain next described the peculiar manner in which the blood poured into the pericardium usually coagulates, and referred to the belief expressed by Dr. Strond that rupture of the heart was the immediate cause of the death of the Saviour on the cross.

Rupture of the heart might be said to be always fatal; yet wonderful cases are recorded of temporary or permanent recovery from cardiac wounds. Treatment is well-nigh hopeless, and, when there is time to institute it, ought perhaps to be almost negative—the less done the better.

Aneurism of the Heart.

Aneurism of the heart was defined by Dr. Quain as a pouch or sacculus situated in the substance of the muscular walls of the heart, or projecting outwards and constituting a tumour external to the organ, but in every case communicating with one or other of its cavities.

A cardiac aneurism usually presents the appearance of a tumour of various size projecting from the wall of the heart; but at other times there is seen on the endocardial surface a simple depression or an opening into a parietal excavation. There might be more than one sac, and the size varies from that of a small bean to a tumour as large as the chamber from which it grows. The pericardium is sometimes adherent. The mouth and neck of the sac vary in size and shape, as in aortic aneurisms; and the walls in different cases are found more or less thin—partly muscular or not—sometimes cartilaginous or calcified. The lining membrane and contents present the usual aneurismal characters.

Of fifty-one cases of aneurism of the heart, the disease was found by Dr. Quain to be nearly equally distributed in the five decades from 20 to 70 years inclusive. It was found once in a child of 12 years, and once in a patient of 82. Females are about one-third as liable as males to cardiac aneurism.

After reviewing the various opinions expressed by pathologists on the mode of formation of this lesion, the lecturer concluded that cardiac aneurism is almost exclusively the result either of inflammation or of degeneration. Inflammation of the cardiac walls might give rise to aneurism by ulceration of the endocardium (3 out of 32 cases); by simple softening of the myocardium beneath an endocarditic patch; by development and subsequent yielding of a spot of fibroid tissue amongst the muscular fibres (21 out of 32 cases); by the bursting inwards of a cardiac abscess (2 out of 32 cases); and by changes in the so-called fibrinous deposits. As the result of fatty degeneration, aneurism is recorded 6 out of 32 times. In the great majority of cases the lesion occurs in the left ventricle; and of 303 cases where it did so, in 138 it was found at the apex, in 101 at the base, and in 64 in the intermediate part.

It is doubtful, according to Dr. Quain, whether we have at our command the means for determining the existence of cardiac aneurism during life. Symptoms, when present, might be sufficient simply to show that the heart is diseased, and, this being the case, it would be impossible to estimate accurately the duration of the affection. The result, however, is usually a fatal one, either from embarrassment to the heart's action or by rupture. A case recorded by Dr. Wilks proves that a spontaneous cure by solidification and calcification is possible.

Professor T. Longmore, C.B., Army Medical School, Netley, lectures at the Royal United Service Institution, Whitehall, "On the Geneva Convention of 1864, in relation to the aid afforded by Volunteer Societies to Sick and Wounded Soldiers during the late Franco-German War, with a glance at the proper functions of National Aid Societies, particularly the British Aid Society, in the future." Lieutenant-Colonel R. Loyd-Lindsay, V.C., M.P., Chairman of Committee, British National Society for Aid to the Sick and Wounded in War, presides.

LECTURES ON

EXCISION OF THE HIP-JOINT.

By HENRY HANCOCK, V.P.R.C.S.E.,

Senior Surgeon to Charing-cross Hospital.

(*Continued from page* 307.)

Gentlemen,—In the year 1857 I wrote a paper for the purpose of combatting those laws by which it was previously insisted that the operation for the removal of the head of the thigh-bone should be governed. These, as you will remember, were—1st, That it should only be performed in the last stage of hip disease; 2nd, that it should only be performed when the head of the bone is dislocated; 3rd, when the cotyloid cavity is free from disease; 4th, when the amount of pelvic disease is but trivial.

In my last lecture we considered the second of the above regulations—"that the operation should only be performed when the head of the bone is dislocated"—and we found, curiously enough, that the very first case of excision of the head of the thigh-bone ever performed, and that successfully, was one in which the contrary obtained; and we also found that of 143 cases, the percentage of recoveries when the head was dislocated was 46, against 23 where the head remained *in situ*.

With regard to the regulation that the operation should only be performed at the last stage of hip-joint disease,—this undoubtedly was enunciated in the early history of the operation, but even then it was difficult to understand what was exactly meant by the term. Was it intended to mean the last stage of the patient's life; the last stage of his powers of endurance; the last extremity of constitutional disturbance, when we are at length convinced that he must sink if that disturbance be allowed to continue?—or was it meant to describe the last stage of the disease in a pathological sense? Year by year experience proves, and that most forcibly, that in deciding upon this operation we should be guided solely by the condition of the patient, and not by any arbitrary rules as to the amount or period of the disease.

The more I have seen and read of this operation, both in my own practice and in that of others, the more frequently have I had to regret the amount of invaluable time which has been lost, and the extent to which disease has been allowed to attain, before the patients have been submitted to our care, so that I have almost felt inclined to echo Hey's axiom with regard to strangulated hernia—"I have often had occasion to regret operating too late; I have never regretted operating too early." The more I see, the more I am convinced that if delayed until the last stage the operation is delayed too long; that the patient, worn out by the terrible and almost insupportable sufferings of the preceding stages, is in an unfavourable condition to bear the shock of the operation, whilst his powers of constitution are rendered too weak to make the efforts necessary to his recovery.

Undoubtedly the assertion that the operation must be delayed until the last stage was the natural consequence upon the law that it must not be performed except in those cases wherein the head of the bone was dislocated; but we have already seen how many among those who have been operated upon would have died before the proper period could have arrived had this regulation been adhered to.

"The patient was in the last stage of weakness, emaciation, and hectic" is the constant description; and yet, of 123 cases, in 44 the head of the femur remained in its socket. Can any possible benefit accrue to a patient from being for months subjected to the torments of ulceration, the drain of suppuration, the hectic, night-sweats, emaciation, and daily loss of health and strength, and the consequent risk of amyloid degeneration of the liver, consumption, etc.? Surely there are reasons sufficiently grave to render it imperative on the Surgeon to use all his diligence and all his acumen in endeavouring in each case to ascertain the exact period at which Nature abandons her efforts at reparation, unable longer to cope with the ravages of the disease, when the patient's health and strength are giving way; and having assured himself of these facts, to step in without further delay to the rescue of the patient, in whatever stage of hip-joint disease the patient may be.

The third and fourth regulations—"that the cotyloid cavity must be free from disease and the amount of pelvic disease but trivial"—can now, happily, be no longer maintained; experience has shown that they are utterly untenable, since, had they been allowed to prevail, some of the most brilliant

examples of this operation upon record would have been left unperformed. I do not for one moment pretend to deny that, as a general rule, Mr. Syme is right in maintaining that when caries attacks the joint it is not limited to one bone. The majority of cases operated upon prove the correctness of his position. Of the 92 cases, in only 18 is the acetabulum stated to have been healthy; the mortality of these 18 being 6, or 33 per cent.

Disease of the hip-joint, as Mr. Holmes justly observes, rarely commences in the acetabulum. This gentleman mentions a very uncommon preparation in the museum of St. George's Hospital, in which there is no caries, but the only lesion is in the acetabulum. In all the other cases in this collection the femur is affected as well as the acetabulum and in a greater degree. And this quite coincides with the description given of the various cases, for whilst the head of the femur was more or less diseased in 143, in ten it was entirely absorbed. In 119 out of the 143 operations performed the acetabulum afforded more or less evidence of departure from its natural and healthy condition.

In ten cases an opening communicating with the interior of the pelvis was found at the time of operation in the floor of the acetabulum. In four cases there was perforation of the acetabulum and abscess within the pelvis.

In three cases the acetabulum was trephined for the evacuation of pelvic abscess.

In one, Sayre of New York removed the head of the femur, with the cotyloid cavity, with the spine and anterior crest of the ilium. The patient recovered.

In one, Bowman gouged the acetabulum and the horizontal ramus of the pubis. The patient recovered.

In one, Sir William Fergusson removed nearly the whole of the cotyloid cavity.

Of the ten cases in which the acetabulum was found perforated at the time of the operation, six (or 60 per cent.) recovered, two (or 20 per cent.) died. Of the four in which not only was the acetabulum perforated, but there was also abscess within the pelvis, two recovered, two died—50 per cent. either way. Of the three in which the acetabulum was trephined for the purpose of evacuating matter from the pelvis, two (or 66 per cent.) recovered, one (or 33 per cent.) died. So that of the whole twenty cases wherein the operation was performed under the most unpromising circumstances, the mortality was only five, or 25 per cent.

I cannot, therefore, admit that Mr. Syme's observations can be regarded as valid arguments against the operation in the face of these unanswerable facts. The latter must be accepted as conclusive proofs of the fallacy of the doctrines enunciated, and they prove, moreover, this great practical point—that as, in the very large majority of cases, the cotyloid cavity is more or less implicated, the Surgeon should always be prepared, in undertaking the operation, to find the acetabulum involved, and in that case to remove the whole of the disease, which, in the majority of cases, may be done without much difficulty.

After all, who is there amongst us that will undertake to tell beforehand what is the—I will not say exact, but anything approaching to the exact—condition of the acetabulum? And even if we could do so, would any of us, with these facts before us, feel that we were conscientiously performing our duty if we abandoned a patient to his fate and allowed him to die in his agony because we discovered that the acetabulum was diseased? After what we have seen, is not this, so far from being an insuperable objection, a greater reason why the operation should be performed? The greater the amount of disease, the smaller is the chance of recovery by natural means, though, surprising as it may appear, the greater the chance of recovery by artificial assistance; since, of twenty cases in which the gravity of the symptoms was as great as can well be imagined, the mortality was much below the average, being 20 per cent. as against 39 per cent. where the operation was performed under more favourable circumstances. And after all, the value of an operation does not consist in the mere facility of execution, but in the extent of disease it is able to remove, and the urgency of the symptoms and the amount of suffering it is capable of relieving.

Both Mr. Colson and Mr. Henry Smith have laid great stress upon perforation of the acetabulum being an insuperable obstacle to the performance of the operation. I have already given the number of instances in which this complication existed, and shown that so far from being a reason against the operation it infinitely enhances its value, since it affords a prospect of cure, and prolongation of life, in a number of cases and an amount of disease hitherto regarded as beyond the power of amendment. Presuming always that the disease is confined to this locality, that the viscera and vertebræ are healthy, and the lungs free from tubercles, I do not understand why an abscess within the pelvis, caused and sustained by hip-disease or caries and perforation of the cotyloid cavity, should not be cured as well as any other abscess connected with caries elsewhere, provided it can be reduced to the same conditions. Were we called to an abscess within the cranium depending upon caries of the cranial bone, should we hesitate for one moment to remove the carious bone, and to give the patient a chance of life? Why, then, should we hesitate to apply the same rule of practice to the acetabulum? We are told by one of the highest authorities that patients so afflicted *must*—not *may*, recollect—die. Is there anything in the anatomy of the pelvis to prevent our attempting to save the lives of those thus condemned? Mr. Syme himself removed necrosed bone from the tuber ischii, and in another case from the ascending ramus of the ischium and inner margin of the pubic arch.

It is not by any means so difficult to reach the floor of the acetabulum as it is to remove these parts. Mr. Holmes has well observed that, paradoxical as it may appear, the natural position of the joint-surfaces is prejudicial to their recovery, and that spontaneous dislocation is the natural, and in most cases the only natural, cure possible for extensive caries of the articular surfaces. "In excising the hip," he continues, "which I have never done except in cases where no dislocation existed, I have never failed to find that when the incision has been made into the cavity of the joint, a large quantity of pus has escaped, however freely the superficial abscesses may have been opened. Thus it seems to me that the matter is detained in the cavity of the joint while that cavity remains tolerably entire and filled up to a very considerable extent by the remains of the femur." On the other hand, in pelvic abscess depending upon hip disease, the head of the bone, or what remains of it, is often retained in the acetabulum, even after perforation of the latter has obtained. The matter escaping from the joint into the pelvis, the same subsidence of the extreme symptoms takes place as is so commonly observed in spontaneous luxation. Still, such subsidence of symptoms can only be regarded as temporary. The abscess is not cured; the matter is not got rid of, it is only transferred from one situation to another—from the acetabulum to the interior of the pelvis. Such abscesses cannot be cured spontaneously, for the matter, if left to itself, cannot find a depending exit, whilst at the same time the exciting cause or caries still remains. It may be asked why the spontaneous openings of a pelvic abscess cannot effect a cure equally with one made through the acetabulum. The answer is found in the shape of the pelvis. When a patient lies on his side the cotyloid portion is most depending, so that when a free opening is made in that situation, and the patient is turned on the same side, not only does the matter find a free and depending exit, but the contents of the pelvis, gravitating upon the confines of the abscess, tend to consolidate the parts, obliterate the cavity, and assist the cure. And moreover it must be remembered that in removing the head of the bone and the diseased portions of the acetabulum we not only afford a free and depending outlet for the otherwise incarcerated discharge, but by removing the carious bone we at the same time remove the exciting cause of such discharge.

After all, the proceeding is neither difficult nor dangerous; the ilium is separated, for the most part, from the peritoneum and fascia iliaca by the iliacus internus muscle. The ilium, ischium, and pubes opposite and beyond the joint are separated from the abdominal and pelvic cavities and viscera by the pelvic and obturator fasciæ, the obturator internus and levator ani muscles. The matter in these pelvic abscesses lies between the bone and obturator fascia, which in most cases may be found extremely tough and considerably thickened, whilst a considerable interval occurs between the two, so that any part or the whole of the cotyloid portion of the pelvis, and for some distance beyond, may be removed without any risk of injury to the pelvic contents.

But in undertaking these operations it is of the utmost importance that we should thoroughly convince ourselves, by careful examination, of the non-existence of disease elsewhere. We must feel assured that the abscess in the pelvis has been preceded by, and is depending upon, caries of the hip-joint—that it is unconnected with caries of the spine or with psoas or iliac abscess. One point of diagnosis in these cases therefore is the existence of hip disease and the previous history of the case, although unhappily these are not always infallible, since cases have occurred in which caries of the hip-joint has progressed *pari passu* with caries of the spine. Another point of diagnosis is the locality at which the spontaneous openings usually occur. When the matter is poured into the pelvis

through the perforation in the acetabulum, it falls, as we have seen, between the obturator fascia and the bone, and in consequence of the firm attachment of the former to the falciform margin of the great sacro-sciatic ligament the matter cannot reach the skin in that direction, but, gravitating posteriorly by the rectum, it presents by the side of the anus, simulating fistula. It occasionally finds its way into the rectum itself or the vagina, and it has been known by its pressure upon the neck of the bladder to interfere greatly with the process of micturition; but the more frequent position, so far as my experience serves me, is in the outer portion of the groin, near to the anterior inferior spinous process of the ilium, probably induced by the position maintained by the patient at this stage of the disease. This is a point to which I am inclined to attach some importance as affording a means of diagnosis between pelvic and psoas abscess, as the latter usually presents more internally, nearer to the middle of the groin, whilst a probe introduced into the latter passes upwards in the course of the tendon; in the former it passes downwards and backwards into the pelvic fossa. The existence of openings externally in the neighbourhood of the joint will also assist, as pelvic abscess depending upon hip disease very rarely, if ever, takes place without having been preceded by more or less suppuration about the joint itself.

(*To be concluded.*)

ORIGINAL COMMUNICATIONS.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. V.

(*With Photo-lithographic Plates.*)

The Value of the Sphygmograph in Heart Disease—Indicates Hypertrophy, etc.—Various Forms of Pulse consistent with Mitral Regurgitation—The Action of Digitalis in this Disease—The Pulse in Tricuspid Regurgitation.

It appears at first sight but reasonable to suppose that the sphygmograph would be of the greatest value to the Physician in the diagnosis of cardiac valvular lesion, and with this view it is most frequently employed; but no means can be taken to bring greater disgrace upon the instrument or its employers than to use it with these pretensions. A diagnosis in heart disease, made from the inspection of a sphygmographic tracing, must in by far the larger proportion of cases prove a complete failure, and I would most earnestly entreat of all sphygmographers, for the sake of their own reputation and that of the instrument they employ, to refrain from attempting it. The disappointments occurring from this improper use of the instrument have induced many of its supporters to ignore the information it affords, and thus they have lost sight of a great aid to the study of cardiac pathology.

The sphygmograph appears to yield us the following indications in valvular disease:—

1. It often affords reliable grounds on which to form a prognosis.

2. It is a measure of the amount of valvular lesion, and its effect on the circulation generally.

3. It indicates the extent to which the heart has accommodated itself to existing circumstances by compensatory hypertrophy, or whether, unable to perform the increased work thrown upon it, it has become dilated.

4. By its aid the progress of cardiac disease may be estimated.

5. It is a most important guide to treatment, and by it the action of a remedy may be watched in the most perfect manner.

6. It often affords an aid to diagnosis, though for this purpose it should be used with the greatest caution.

It is proposed in the present paper to study the indications afforded by the sphygmograph in insufficiency of the auriculo-ventricular orifices. To this class of cases Plate iii. accompanying this paper is devoted. It should be stated that the tracings which appear as black lines in this plate are due to their having been traced in ink on white paper, instead of on smoked paper in the usual manner.

The effect which disease of the mitral valve produces on the circulation depends chiefly on the changes which take place in the muscular walls of the heart. By the stethoscope the presence of a bruit may be discovered, and regurgitation through the mitral orifice diagnosed; but whether this regurgitation be much or little, whether the heart be incapacitated or not for its work, the stethoscope cannot tell. The smallest amount of regurgitation will often produce a very loud murmur. Surely every Medical man knows of persons who are going through their daily work with an inefficient mitral valve, and at the apex of whose hearts a systolic murmur is audible; and yet they have none of the usual troubles of heart disease. In these cases there is either a very small amount of regurgitation or else the heart has hypertrophied and accommodated itself to the diseased condition. The sphygmograph distinguishes between these cases and those in which there is free regurgitation and, added to it, a more dangerous condition—namely, dilatation. It then indicates the course of treatment to be adopted, and gauges the amount of repair established—*i.e.*, the amount of hypertrophy produced. The presence of mitral disease cannot, however, be diagnosed by it, except in those cases where the amount of regurgitation is very great, though it may show that the character of the pulse is more compatible with mitral disease than with any other valvular lesion.

The typical form of pulse in mitral regurgitation is that of W. H. (Fig. 9, Pl. iii.), a lad admitted into John ward on January 18, 1871, under the care of Dr. Wilks. On admission he was suffering from well-marked chorea, and the following note was made in the report by the clinical assistant:—"A loud blowing systolic murmur is heard at the apex; it may be heard also at the base less distinctly, and is gradually lost when traced upwards. The bruit is heard very distinctly in the axilla, and also between the scapulæ." During his stay in the Hospital the chorea almost completely disappeared, but the bruit remained unchanged. The characters of his pulse especially to be noted are the following:—Owing to what must have been a large amount of regurgitation, only a small amount of blood enters the arterial system at each ventricular systole; the upstroke is accordingly very short. It has, moreover, another important defect—it is sloping, instead of vertical; this indicates that the percussion element is deficient. The force with which the blood is impelled into the aorta is greatly diminished by the insufficiency of the mitral valve, which now offers no *point d'appui* for the propulsive force applied by the ventricle to the blood-column. One character of this pulse differs from what is usually found in mitral insufficiency—namely, the pressure employed to develope it, in this case six ounces; the pressure usually employed is very slight. In the more advanced stages of mitral insufficiency, when the heart has become dilated and is failing at its work, as seen in those typical cases of heart disease where the constitutional symptoms are well marked, and such as are often met with in the wards of a Hospital, the pulse possesses usually these characters and, added to them, that of extreme irregularity; this constitutes what is known as the "mitral pulse." Unfortunately I have not preserved a single specimen of this form of pulse available for insertion in the plate, nor could I meet with one in the course of some weeks' search in the wards of Guy's, owing to the excellent practice of putting patients in such a condition on the use of digitalis, which very rapidly improves the character of the pulse.

A tracing having similar characters to the preceding is seen in Fig. 10, Pl. iii., obtained from a lad aged 13, when an out-patient under Dr. Moxon with the symptoms of mitral regurgitation, who was soon after admitted into the Hospital under the care of Dr. Habershon. There was a loud systolic murmur heard at the apex, in the axilla, and between the scapulæ; no doubt was entertained of its character. His health afterwards improved, and he left the Hospital. In both these cases there was probably free regurgitation through the mitral orifice, unattended by any compensating hypertrophy. The tracing represented in Fig. 7, Pl. iii., indicates a heart more equal to its work than those that have been noticed previously; it is that of a woman admitted into Guy's, under the care of Dr. Wilks, on October 15, 1871, suffering from subacute rheumatism. The heart's impulse was strong, and there was a loud blowing systolic murmur audible over the greater part of the chest, and masking the first sound completely; the second sound was clear. It may be noticed in the tracing that the upstrokes are sloping, the percussion-wave being lost: the reason for this has been previously stated. The tidal wave also is small, and the dicrotic wave very feeble; the arteries being markedly empty during diastole. In this case there was probably free regurgitation, though with some tendency to repair by means of hypertrophy.

In Fig. 4 the arterial expansion is strikingly unsustained; the collapse during systole is sudden and almost complete, and the pulse nearly fully dicrotic. The tracing was obtained from a boy aged 15, admitted February 21, 1871, under the care of Dr. Pye-Smith; he suffered from acute rheumatism eighteen months previously. The area of cardiac dulness is much increased, the enlarged heart bulging the ribs of the left side. The apex-beat is well marked but widely diffused, strongest between the seventh and eighth ribs, one inch and a half to the outer side of the left mammary line; also felt as low as the ninth costal cartilage. There is a loud systolic blowing murmur, audible at the apex, in the axilla, and between the scapulæ. The action is rapid; it was tumultuous when first admitted. The constitutional symptoms have been well marked. Here is a heart now doing its work with but a small amount of efficiency, though much more perfectly than on first admission; it had been dilated for some time, and previous to admission reached a climax of inefficiency; it is now probably hypertrophying, owing to the treatment adopted, and increasing in efficiency. A tracing obtained of the apex-beat has some of the characters of hypertrophy, though those of dilatation are most prominent; the contraction is forcible and well sustained (unlike most hearts in which there is mitral regurgitation), but though forcible it is slow, the upstroke somewhat sloping; the summits also are frequently rounded.

Figs. 8 and 3 are both taken from cases in which there was mitral regurgitation, but in which the heart was doing its work with considerable efficiency, especially in the latter instance.

The diagnosis of hypertrophy by physical signs is confessedly most difficult; for notwithstanding the number of indications supposed to be afforded by this condition, and detailed by the text-books, clinically there may be few, if any, present. Dr. Wilks points out as the most constant the alteration in the position of the apex-beat. Unfortunately, this has not been always recorded in the clinical reports to which I am frequently indebted for the notes of these cases. But the indications of hypertrophy afforded by the pulse are themselves almost sufficient for diagnostic purposes; indeed, the sphygmograph is one of the most reliable gauges of hypertrophy we possess. The form of tracing obtained in simple hypertrophy was discussed in the last paper, Bright's disease being the least complicated condition in which it is found. Dilatation may be distinguished from hypertrophy by the short and sloping upstroke, from the diminution of percussion and the slight pressure employed, the systolic expansion being still prolonged.

The tracing reproduced in Fig. 2, Pl. iii., is of peculiar interest. In this case the opportunity was afforded of watching the process of hypertrophy both by the ordinary physical signs and by the sphygmograph.

E. W., aged 15, was admitted into the clinical ward, under Dr. Habershon, November 24, 1871, suffering from subacute rheumatism and heart disease. She had suffered from acute rheumatism eleven months previously; her heart was then affected, and her general health has since been impaired. On admission her pulse was described as small and irregular, its rapidity being 120 per minute. The following note was made by the clinical assistant:—"Loud rasping sound audible over the whole region of the heart, feebly heard over a larger area, synchronous with the cardiac contraction. At the apex, with the first sound, a bruit exists; does not extend upwards; heard over the spine. Apex-beat broad and indistinct; the hand perceives a rough grating movement." On November 29 it is noted—"Rubbing cardiac noise fainter; area of heart's dulness increased; radial pulse scarcely perceptible." On December 5—"Cardiac apex two inches below and a little to the left side of mamma. Pericardial rub almost disappeared." 19th.—No pericardial rub; area of heart's dulness only slightly increased; apex-beat in natural position." About this date I was asked to take a tracing of her pulse, and was able to diagnose mitral regurgitation from the appearance of the tracing alone, it being decidedly characteristic. On January 10 the clinical assistant reports, the mitral bruit is very loud; apex-beat half an inch to the inner side of and one inch and a half below the nipple; dulness extends upwards to the third rib. February 19.—The bruit possessed the same character as before; the apex-beat was forcible and situated between the sixth and seventh ribs, and about half an inch external to the mammary line; the area of dulness was somewhat increased.

Here, then, were the leading physical signs of hypertrophy, developed apparently in the space of two months. The tracing now obtained is especially characteristic of hypertrophy, having a vertical and high up-stroke and a prolonged systolic expansion. Percussion, also, is well marked, and yet probably there was tolerably free regurgitation.

The tracing represented in Fig. 1, Pl. iii., is also interesting, though it possesses none of the attributes of the (so-called) mitral pulse. C. R., aged 12, was admitted in to Stephen ward, under the care of Dr. Pye-Smith, February 14, 1872. There is no history of previous rheumatism or dyspnœa; his present illness commenced five weeks ago. When admitted into the Hospital he was suffering from subacute rheumatism and morbus cordis. Heart-sounds clear and loud at the base; at the apex there is a systolic blowing bruit, clearly audible at mid-sternum, faintly in the axilla and between the scapulæ; the heart's impulse is strong, full, somewhat heaving and diffused, strongest between the fifth and sixth ribs, in the mammary line. The bruit remains persistent since his admission. The tracing obtained shows a large, full pulse, with a particularly well-marked percussion-wave, indicating an excited action of the heart; but it also has a large tidal wave, and no apparent deficiency in the amount of blood impelled into the artery at each contraction. The tidal wave, moreover, is somewhat sustained, indicating some degree of hypertrophy. Probably in this case there is a somewhat damaged mitral valve, allowing of a small amount of regurgitation. The heart, feeling its weak point, excites itself with increased vigour to compensate for it. This is gradually producing a condition of hypertrophy, and the powerful systole already simulates it in the pulse.

Fig. 6 illustrates a peculiar form of pulse, not at all like that of mitral regurgitation. There was in this case a mitral murmur and an enlarged heart; the pulse was somewhat irregular. Its most marked characteristics are the large proportion which the percussion-wave bears to the tidal—the latter being hardly discernible—and the fulness of the artery during diastole. The heart appears to be contracting sharply and shortly, impelling only a small amount of blood into the arteries by each systole, owing to the free regurgitation. The diastolic expansion of the artery is well sustained by reason of the venous engorgement.

Fig. 5 is the pulse of a Medical man apparently in good health, suffering no symptoms of cardiac disease, whose pulse I pronounced normal, but at the apex of whose heart a soft systolic bruit is audible. The apex is slightly displaced outwards, there being probably some hypertrophy.

The next four tracings in the plate are intended to illustrate the effect of digitalis on the pulse. This drug is now well known to exercise a specific action over the heart. In no way can this be so well watched as by the sphygmograph. Its action on the heart in the lower animals is well known. It increases the duration and force of the systole, and when administered in doses sufficient to destroy life the heart is found tightly contracted. It appears to be, therefore, a stimulator of the sympathetic nerves. Aconite produces exactly the reverse effect. After death produced by this drug the heart is found to be widely dilated, the same condition being produced by galvanism of the pneumogastric. Digitalis will be found clinically to be of most value in dilatation of the heart. In this condition the pulse becomes very irregular; the heart, on account of its great dilatation, is unable to contract efficiently, and never empties itself completely, merely relieving by each attempted contraction its excessive distension; the pulsations felt at the wrist are small, feeble, and irregular, such as those found in advanced mitral disease. The reason for this may be easily discovered. Place any cavity in the body which is surrounded by organic muscular fibre in a condition of over-distension, and what ensues? Invariably paralysis or loss of power. Take, for example, the inability for powerful contraction of the over-distended uterus, as in hydrops amnii or the over-distended bladder, producing retention of urine; or the intestine distended with flatus, as in flatulent dyspepsia or tympanites. This paralysis may be relieved in two ways: First, by diminishing the distension by forming an outlet for the contents; or, secondly, by stimulating the muscle to contraction by drugs, etc. Either of these ways may be applied to the dilated heart. If the distension be relieved by bleeding, the heart will become more regular for a time, opportunity being given it of completely emptying itself; but this improvement will be only temporary, and purchased at a dear cost. The better and safer plan is to stimulate the heart by digitalis, as one does the uterus by ergot of rye. There is also another condition of the heart in mitral disease in which digitalis is beneficial—namely, where the heart is acting excitedly and the patient is much troubled with palpitations. It is intended to refer to the effect of digitalis on the pulse in each form of heart disease, for under certain conditions it varies considerably in its character. The action of this drug has been investigated very thoroughly, and most interesting conclusions arrived at by Dr. Fothergill in the Hastings Prize Essay for 1870, published in the *British Medical*

Journal of last year. Dr. Fothergill has not, however, used the sphygmograph in obtaining his results, and therefore loses a most perfect mode of illustrating and recording them. He has especially pointed out the possibility of producing hypertrophy of the heart by the continued use of this drug when desirable.

C. L., aged 18, was admitted into Guy's on December 6, 1871, under the care of Dr. Wilks. He has a thoroughly mitral aspect, and suffers much from palpitation, headache, and epistaxis. On examining the heart, a very loud blowing systolic bruit is heard at the apex and all over the front of the chest. It changes in character as you proceed towards mid-sternum, where it is loud, but shorter and harsher (? tricuspid). The bruit is also heard in the axilla and between the scapulæ. It often varies in character, and has been musical. I have sometimes thought it presystolic, but the action of the heart has been too rapid to ascertain this certainly. The apex-beat is very forcible and visible, best marked at the lower part of the fifth interspace—about an inch and a half internal to the left mammary line. The area of dulness is increased, especially towards the right; and there is a distinct thrill over the cardiac region. The second sound over the pulmonary valves is peculiarly loud and sharp. The closure of the valves can be distinctly felt on pressing the finger into the second left intercostal space. A tracing of the apex shows a dilated and hypertrophied ventricle, and an hypertrophied auricle. The enlargement is probably chiefly of the right side, as the dulness is increased in that direction. Whether or not there is mitral obstruction, which I believe to be present, there is undoubtedly very free regurgitation. His pulse on admission (Fig. 2, Pl. iii.) was very rapid, splashy, and dicrotic. The systolic collapse in the tracing is sudden, and the diastolic expansion large. Under the use of digitalis this pulse became much slower and firmer (as seen in Fig. 12), the heart acting more quietly and efficiently. The dyspnœa decreased, and his whole condition improved greatly. The amount of dicrotism present in the tracings may be attributed to the venous congestion, which acts mechanically as capillary obstruction.

The next tracings in the plate were obtained from a woman, aged 28, admitted into the clinical ward under Dr. Rees, November 23, 1870. On admission the clinical assistant made the following note:—"The apex beats between the seventh and eighth ribs; lifts the hand. Loud systolic murmur throughout the chest and between the scapulæ; second sound obscured. Pulse 72; very feeble and irregular." The constitutional symptoms were well marked. She was put on the use of digitalis, and when the tracing reproduced in Fig. 13 was obtained she had been taking it for three days, and the volume of the pulse had increased, the contractions of the heart being more efficient, though still very irregular. After the use of it for ten days, Fig. 14 was obtained. The pulse was now regular, firm, and of good volume; the general condition was much improved. After discontinuing the digitalis the pulse relapsed into its former bad form, and was again improved by the same means.

Having noticed the leading forms of pulse associated with mitral regurgitation, and finding them almost unlimited in their variability, surprise will not be felt on finding regurgitation through the right auriculo-ventricular orifice (through insufficiency of the tricuspid valve) also produce no diagnostic characters. But it appears that there is one character always associated with this disease, though by no means peculiar to it—namely, variation in the line of arterial tension produced by each movement of respiration; moreover, the percussion-wave is not diminished as in mitral regurgitation.

J. L., aged 56, was admitted into Guy's, under Dr. Wilks, July 6, 1871, with symptoms of morbus cordis and Bright's disease. The following note describes the condition of his heart:—"Area of dulness greatly increased; impulse diffused and fluttering. The first sound is dull, and rather woolly; the second has more the character of the first, more prolonged than usual." Two days afterwards I found a soft systolic murmur at the apex; the second sound was inaudible at the base, well marked but dull at the apex. This bruit was inconstant—lost when the action of the heart was rapid, reappearing as it became slower. The large veins in the neck pulsated. The greatest variety of opinions were expressed as to the nature and origin of the bruit, which was heard by some loudest at mid-sternum.

The tracings obtained (Fig. 15) did not much elucidate matters. It was not the pulse of mitral regurgitation which accompanies a dilated heart. But a tracing of the apex-beat (Fig. 16) was most interesting, on account of the extremely well-marked auricular beat preceding the systole. This is indicated in the tracing by the elevation preceding the main upstroke. By its presence I was able to diagnose an hypertrophied auricle, and therefore expected that the bruit must be presystolic and due to mitral disease. Five days after admission he died very suddenly. At the autopsy, Dr. Moxon remarked, on seeing the external configuration of the organ, "This heart ought to have a contracted mitral;" but, on examination, no valvular disease was discovered. The left ventricle was hypertrophied and somewhat dilated, the left auricle was greatly hypertrophied; the right ventricle was greatly dilated, and the tricuspid orifice much wider than normal. Probably, therefore, the bruit heard during life was produced by regurgitation through the tricuspid valve. Dr. Wilks, however, doubts the possibility of a bruit being produced by regurgitation through this valve when healthy. Still, if there be any truth in the "safety-valve action" of the tricuspid, surely in these cases of greatly dilated right ventricle regurgitation must take place; and, if the bruit was not produced by it, I am at a loss to account for its presence. Moreover, I have more than once heard a bruit at mid-sternum, when the right side was dilated, in chronic bronchitis and emphysema. The characters of this tracing to be noted are the presence of a well-marked percussion-wave, it thus differing from a typical mitral pulse, and the variation in the tension of the blood-column, producing an undulating respiratory line. This I believe to be a constant accompaniment of tricuspid regurgitation. Its mode of production is evident.

The last case in this plate ought, perhaps, to belong to the succeeding one, for both mitral stenosis and tricuspid regurgitation were present.

J. G., aged 17, was admitted several times into Guy's, under the care of Dr. Wilks. On December 20, 1870, when the tracing represented in Fig. 17 was obtained after an examination of the heart, the following note was made:—"There is a bruit which takes place during the end of the diastolic pause and replaces the first sound on the left side at the apex. On the right side of the sternum it has a somewhat different character, and does not appear to commence before the first sound. There is a thrill perceptible on placing the hand over the cardiac region. The veins of the neck pulsate." Dr. Wilks diagnosed mitral contraction and tricuspid compensating regurgitation. The peculiar character of the pulse was the undulation in the respiratory line; this was most marked after exercise. Fig. 18 represents the pulse of the same patient after using digitalis for a fortnight; it is very slow, firm, and of remarkably good tone, and illustrates admirably the effect of this drug on the pulse. Fig. 19 was obtained on December 19, 1871, while he was in Guy's for the last time. His condition was considerably worse than before, and his pulse now presents a bad characteristic; it is slightly hyperdicrotic. It appears that in heart disease this may be always ascribed to excessive venous congestion, and shows the obstruction to the circulation to be very great. The undulation of the respiratory line is present in a still more marked degree. Gradually becoming worse, he left the Hospital to die at his own home. An examination, which was permitted, fully confirmed the diagnosis. The right auricle was hugely dilated; the right ventricle also greatly dilated, and somewhat hypertrophied; the tricuspid orifice being much enlarged. The left auricle was greatly hypertrophied, the wall being a quarter of an inch in thickness; the mitral valve calcareous, extremely contracted, not admitting the little finger; left ventricle, aortic and pulmonary valves normal. The influence of the tricuspid regurgitation on the characters of the pulse peculiar to mitral stenosis will be referred to in the next paper.

(To be continued.)

Her Majesty the Queen has been pleased to grant a donation of £100 to the British Medical Benevolent Fund.

West Kent Medico-Chirurgical Society.—At a meeting of this Society on Friday, April 5 (Mr. J. M. Burton, President, in the chair), Mr. Sydney Jones read a paper "On Some Points in the Treatment of Nævi and other Vascular Aberrations." After briefly reviewing the pathology of the disease, and the different modes of treatment, the author strongly advocated the use of the actual cautery as a means of cure. The paper was illustrated by the reading of several cases, and the exhibition of the galvano-cautery, which was ably superintended by Mr. Ellis, of St. Thomas's Hospital. Drs. Barnes, Carr, Gooding, and Purvis, and Messrs. Burton and Lockhart, took part in the discussion which followed. Dr. Stocker, of Peckham House, was unanimously elected a member of the Society.

SKETCH OF

MAJOR OPERATIONS PERFORMED BY MR. SPENCE DURING THE SUMMER OF 1871

IN THE

ROYAL INFIRMARY OF EDINBURGH.

By H. AMBROSE LEDIARD, M.B. Edin., M.R.C.S.,
Late House-Surgeon to the Edinburgh Royal Infirmary.

The accompanying cases enumerate all the operations performed by Mr. Spence during the summer months which may be dignified by the name of major operations. It will be seen that there were 11 amputations, of which 9 were for disease and 2 primary for accidents, all of which recovered; 4 cases of excisions of large tumours, all of which recovered; 4 cases of excision of joints, 3 for disease, and 1 primary, the only one dying being the primary case.

Amputations.

Disease of End of the Bone in an old Stump.—Robert B., aged 35; amputated below the knee on May 12; dismissed, June 28. A not very healthy pauper. The fibula had to be sawn through again during the operation, in order to arrest the hæmorrhage, the vessels having been divided near the bifurcation of the popliteal. Wound healed slowly, and subsequently exhibited some want of action. Result excellent.

Gelatinous Degeneration of Knee going on to Suppuration.—David D., aged 6; amputated at lower third of thigh on May 16; dismissed, August 6. Very strumous subject. Long anterior flap employed; part of the incision involving the wall of an abscess. Wound quite sound in thirty days, when the whole cicatrix ulcerated, and refused to heal for some time. Result very good.

Ununited Fracture of Leg.—William C., aged 11, amputated below the knee on May 23; dismissed, July 20. This was a very interesting case. The fracture occurred in India, and previous to amputation the fracture had been cut down upon, and bones pared by Mr. Spence. The wound healed readily enough, but the bones did not unite, and, as the development of the limb did not keep pace with the other, amputation was adopted by the long posterior and short anterior flaps. This wound united entirely in a week, but a large abscess formed in the calf, which discharged, and closed ultimately in twenty-four days. The boy was a child of a sergeant in the 32nd Regiment, and was kept in for convenience to friends.

Smash of Foot from Machinery (Primary).—James W., aged 10; amputated at ankle-joint (Syme) on June 1; dismissed, July 15. Healthy boy. The line of the incision across the heel lay necessarily through bruised textures. A portion of the heel flap sloughed, which was feared would be the case. With this exception, and the formation of one small abscess in the stump, the wound healed readily enough, leaving an excellent result.

Caries of the Tarsus.—Robert M., aged 31, amputated at ankle-joint (Syme) on June 13; discharged, July 17. Healthy, cheerful man. The case was one of rapid disease of the inner side of the tarsus, with numerous sinuses. There was reactionary hæmorrhage to small amount. Wound healed readily enough, with the formation of one abscess.

Disease of the Tarsus.—Annie S., aged 25; amputated at ankle-joint (Syme) on June 13; dismissed, July 3. Very nervous subject. This case was one in which numerous abscesses formed in the foot, the cartilages of the tarsal bones being intensely ulcerated. Immediate relief followed amputation; but when about to leave the Hospital she took variola, and died July 20, with pleuritic effusion, in the Fever House. The stump continued sound up to the last.

Caries of the Tarsus.—John D., aged 17; amputated at ankle-joint (Syme) on June 20; dismissed, August 8. Healthy subject. This case was one of very chronic affection of the larger tarsal bones. The wound united without a bad symptom, and, if anything, seemed to be accelerated by the formation of an abscess, which formed a drain, and allowed the incision to heal first.

Gelatinous Degeneration of Knee and old Necrosis of Shaft of Femur.—Donald D., aged 42; amputated at upper third of thigh on July 11; dismissed, September 7. Tolerably healthy man; somewhat anæmic. The periosteum of the femur above the knee was much thickened, rendering the case unsuitable for excision. A long anterior flap was adopted. The whole incision united immediately, and a small orifice was kept open from first to last, only to allow of escape of discharge. Cicatrix came well behind.

Chronic Constitutional Ulcer of the Leg.—Allan McK., aged 43; amputated through the knee-joint on July 19; dismissed, September 13. Ulcer was of nine years' standing, and refused every effort to heal. Skin was hard, burrowed under, and much thickened. Man was sallow, and in ill-health. Amputation through the knee was resorted to, removing the patella, and leaving the condyles intact. The flap from the front was of great length, but, together with a posterior flap, just covered the bone thoroughly. An abscess formed in the thigh, of small size. Cicatrix was drawn well behind. Man improved in health.

Railway Accident: Arm entirely Severed below the Deltoid (Primary).—George S., aged 22; amputated at the shoulder-joint on July 30; dismissed, August 31. Healthy and temperate man. The method of amputation adopted was by the lateral deltoid flap recommended by Mr. Spence, and which gives such perfect results. This case, fortunately, was suited for such an amputation. The man was brought six miles in a cab, and had, in addition, two scalp wounds, which, though adding to the interest of the case, did not diminish the danger. The man never had a bad symptom. The brachial artery was torn out to a point the size of ordinary sewing-thread.

Caries of Tarsus.—Henry G., aged 12; amputated at the ankle-joint (Syme) on September 19; previously, partial amputation of the foot on August 16; dismissed, November 30. Delicate boy, of most extraordinarily excitable nervous system. The disease being limited to the outer side of the foot to a very marked degree, and though the operation is not a favourite with Mr. Spence, the chance was given in this case. Intense inflammation set in after the operation; after its subsidence, it was found that the cartilages of the tarsus were in a state of ulceration, abscesses, etc., forming round the ankle. The boy was in a very weak condition, but the second operation was immediate in its beneficial results. A sinus formed, which refused to heal for six weeks. The boy was out of bed at the end of three weeks.

Excisions of Joints.

Gelatinous Degeneration of Elbow-joint, with one Sinus communicating with Diseased Bone.—Elizabeth K., aged 3; operated upon, July 14; dismissed, August 10. Healthy-looking child. Joint was removed by the longitudinal incision. The result was a truly marvellous one; the incision united directly, all except that portion which ran through the old sinus. At the end of ten days all discharge ceased, and the wound was quite sound, and remained so. The child was kept in, so that the movements might be attended to. Two months after she was brought to be seen. The motions of the arm were almost perfect. In this case, simple pads of lint served to keep the joint in the position required.

Gelatinous Degeneration of Elbow-joint: Disease of the Cartilago commencing.—Alexander J., aged 12; operated upon, July 28; dismissed, September 28. Pale, strumous boy. In this case, as in the previous one, the longitudinal incision was employed, and pads of lint only to keep the joint in position. The wound healed slowly, and after all discharge from the interior ceased, superficial obstinate ulcers remained. On dismissal to convalescent-house, these were not entirely healed.

Disease of the Wrist-joint.—Gavin W., aged 21; operated upon, August 3; dismissed, September 28. This was a most unfavourable case for operation; there had been old disease of the metacarpus, leading to shortening of the ring-finger. As many as six sinuses existed on admittance. A single dorsal incision sufficed to expose the joint. With the exception of some sloughing of the extensor common tendons, the wound healed slowly and well. The movement of the fingers was progressing satisfactorily on dismissal.

Compound Fracture into Elbow-joint (Primary).—James N., aged 44; operated upon, August 1; died. A patient of exceedingly intemperate habits. Friends stated that he was rarely sober. There was considerable laceration and bruising of the soft parts; but the violence of the injury had chiefly expended itself upon the olecranon process. The joint was excised upon admission. Delirium tremens came on within twenty-four hours after the operation. He continued to rave for two days, and then died.

Excisions of Tumours.

Small Scirrhous Tumour of Breast, with an Ulcerated Surface: Glands in Axilla affected.—Elizabeth J., aged 45; operated upon, June 27; dismissed, July 31. Healthy-looking woman. No excess of fat; good nervous system. The entire breast was removed, together with the axillary glands. The incisions made to accomplish this joined one another at almost a right angle. The wound healed, partly by primary union, and the

skin being not too excessive, was found to be very advantageous. The axillary part of the wound healed last.

Multilocular Cystic Tumour of Breast.—Mary M., aged 30; operated upon, July 3; dismissed August 12. Very healthy woman. Tumour removed by one incision, the various cysts emptying themselves during the operation. The wound did well enough, uniting secondarily; but the skin being superabundant, turned in upon itself, and delayed the ultimate closure long after all discharge ceased.

Scirrhous Tumour of the Breast: Affection of Axillary Glands.—Ann S., aged 53; operated upon, July 19; dismissed, August 18. This case was treated in the same manner as the one first given. The only point of interest to observe with regard to the dissection of the gland was that the axillary vein was exposed. This wound seemed inclined to unite primarily. For four days there was no discharge, but an abscess formed at the outer end of the line of incision, which continued to discharge for some time, the rest of the incision uniting directly. It may prove interesting to observe that this woman's mother was in the Infirmary at the same time with a large carcinomatous mass in the neck.

Large Scirrhous Tumour of Breast.—Jane C., aged 41; operated upon, September 14; dismissed, November 25. This case was not regarded as a favourable one for operation. The skin over the disease was in a state of acute œdema previous to the operation, which was performed in the usual manner. Twenty-four hours after the operation an erythematous blush appeared over the breast. This spread in all directions, but entirely disappeared at the end of five days under iron treatment and a dressing of tepid lint and Condy. The wound was closing fast, when she took rigors and vomiting, followed by a well-marked eruption, which proved to be small-pox. During her residence in the fever house two large bedsores appeared. At the end of October she was sitting up, bedsores healed, and patient doing well. Wound not quite closed; great want of action.

Treatment of Wounds after Operation.

It may be observed that carbolised catgut ligatures were used in all cases; as a rule they were not seen again after the closing up of the flaps. To arteries in their continuity Mr. Spence uses silk. Dry cold was applied immediately after operation to all cases unless there was some special reason to the contrary, the method of application being as follows:—The ice is pounded into small pieces, and put into bags made of guttapercha, chloroform sealing up the margin and rendering the bag water-tight. The bags are not to be put over the incision, but on either side. The dry cold was not kept on for more than forty-eight hours; in many cases not so long. The majority of cases were dressed, from first to last, with a piece of oil-silk dipped in dextrine, over the line of incision, and the entire wound covered with guttapercha; the benefit of such treatment being that the discharge is not confined, and it is possible to see what is going on without removing the dressing. After the ice is given up the guttapercha is narrowed to the line of incision, so as not to retain cutaneous transpiration and create moisture, which tends to disorganise the connecting plasma. In all cases stitches were removed as soon as possible, and replaced by ordinary strapping. In three cases of amputation there was reactionary hæmorrhage to small amount, requiring, however, the flaps to be taken down. In the majority of cases small abscesses formed during the healing; these seemed to be of service, allowing the incision to unite, and acting as a drain at a dependant part. The lotions employed were—chlorinated soda, sulphate of zinc, chloride of zinc, carbolic acid, Condy, and in some cases simple water.

Case of Skin-Grafting.

This case exemplifies the results to be obtained from skin-grafting upon a callous ulcer of many years' standing, which had originated in a burn of the leg. The surface of the sore was of considerable extent, about five inches in length, and passing almost round the limb. The fascia of the tibialis anticus was softened and disorganised, allowing that muscle to project the surface of the sore beyond the margin of the surrounding skin. She was admitted early in July, and after a few weeks' treatment with lotions of chloride of zinc and chlorinated soda, the ulcer was got into a sufficiently healthy state for grafting, the granulations being florid and bleeding easily, and the discharge not being too excessive. During the first week in August a piece of skin was removed from the inner side of the arm, about the size of a threepenny-piece, cut into small portions the size of a pin's head, and distributed over the surface of a limited portion of the sore. At the end of the first week it was thought that the grafts were all washed away with the discharge from the surface of the sore, but on the tenth day small points of epithelial growth appeared over the surface of operation, which rapidly spread and joined each other. It is probable that not quite half of the portions of skin employed remained and acted as centres of growth, the rest being either washed away by the discharge, or failing to fall upon congenial soil. This operation was repeated three or four times, until the whole area of the ulcer had been treated as above. From twenty to thirty small bits were used on every occasion, from ten to fifteen of them in every case succeeding. A variation was once had recourse to. The pieces cut from the arm, of a similar size to those first mentioned, were transplanted as they were. These all took root and grew well, but it was observed that the sore was not covered with epithelium half so rapidly from the large grafts as from the small ones, the beneficial results of the latter method depending upon the number of individual centres for epithelial growth afforded. The patient left the Hospital, the leg sound, towards the end of October. The dressing employed consisted of oil-silk coated with dextrine, over which was lint soaked in some lotion which was changed from time to time; over the lint came a piece of guttapercha and a turn of bandage. This dressing may seem somewhat elaborate, but it was found necessary to put some non-irritating body next the sore. The oil-silk dipped in dextrine answered this purpose admirably. The lint soaked in lotion was found necessary to keep the sore in a healthy condition, and the guttapercha, of course, was merely used to prevent the too rapid evaporation of the lotion. After being at the convalescent-house a fortnight, the patient returned with a large portion of the sore recicerated. It was satisfactory to observe, however, that more than half of the grafted portion remained quite sound. This continued intact through a severe attack of erysipelas which set in, from the toes to the knee, a few days after her return to the Hospital.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

THE LONDON HOSPITAL.

CASES UNDER THE CARE OF MR. HUTCHINSON.

Stab under the Jaw followed by Symptoms of Paralysis of the Lingual Nerve—Probable Division of the Nerve and of the Lingual Artery.

An Irish woman, aged 35, now (April 1) under care, shows remarkably well the signs of complete paralysis of the right hypoglossal nerve. The symptoms followed a deep punctured wound, which passed from close to the angle of the jaw downwards and rather backwards towards the larynx, and at the bottom of which the greater cornu of the hyoid bone could be felt. Her speech is "thick"; she cannot pronounce all words clearly, because, as she says, "the tongue is too large." She thinks she can articulate more clearly when lying down, because the tongue then falls back somewhat and does not fill the mouth so much. When she puts the tongue out it is pushed over to the right (injured) side very distinctly. The paralysed (right) side is convex, and looks considerably larger than the left side, which (when the organ is protruded) is concave. The paralysed side remains quite flabby and soft when put out, while the sound side becomes firm. When she eats she cannot move the food about in the right side of the mouth, and has sometimes to push it over to the left side with her finger. She lost a very large quantity of blood from the wound, and was, when admitted, blanched, faint, and unable to walk. She said that the blood "poured" from the wound. Before admission a Surgeon had seen her, and applied strapping and a compress. No bleeding was going on when she was brought to the Hospital, nor has any occurred since. The wound was plugged with bits of sponge, two of which were removed on the third day and the remaining one on the fifth.

It seems very probable that the lingual artery was divided as well as the nerve, and that the division was complete. In this way we can account for the rapid loss of a large quantity of blood, while the retraction and contraction of the cut ends would explain the freedom from recurrence of bleeding.

She is going on well, and her difficulty of speech is diminishing, but the paralysis of the tongue is as complete as it was on admission.

Separation of Lower Epiphysis of Humerus, with Partial Dislocation of Radius and Ulna backwards.

A boy, aged 11 years, is now under care for the results of an injury to his right elbow of five months' standing. When admitted the limb was slightly flexed at the elbow, but could neither be straightened nor bent to a right angle. The inner condyle of the humerus is well defined and feels normal, but all the rest of the lower (epiphysal) part of the bone is very much thickened. The olecranon projects backwards, and the distance between it and the inner condyle is increased. Part of the cup of the head of the radius can be felt, but the remainder is still in contact with the humerus; the radius can be rotated freely. At the bend of the elbow the lower end of the humerus forms a considerable projection, which can be readily felt. The external condyle is not distinctly appreciable, being lost in the thickened mass of bone. Mr. Hutchinson thinks it most likely that a dislocation of the ulna and a partial dislocation of the radius backwards took place, together with separation of the greater part of the humeral epiphysis (the inner condyle probably escaping); while the bones of the forearm passed backward, the detached epiphysis came somewhat forwards, and, remaining in its abnormal position, gave rise to the great thickening felt at the bend of the elbow. The boy stated that the injury was caused by a violent blow from a fist dealt on the upper part of the front of the forearm while the latter was bent at a right angle to the arm, the wrist being fixed at the time.

Obscure Case of Abdominal Tumour—(? Abscess in connexion with Pelvic Bone Disease).

The case of Eliza S., aged 47, is of much interest in reference to the diagnosis of abdominal tumours. Her Medical Attendant told her, about six months ago, that she had a tumour, and she began to notice abdominal swelling about the same time herself. During the same period she has had a good deal of twitching and stabbing pain in the left iliac region, and in the lower part of the back, and on standing the pain has often passed down her thighs. Desire to pass water frequently has also come on, and her motions are said to be sometimes very small. The catamenia are normal. She has had several children, the last being about 5 years old. For many years she probably had some displacement of the uterus, for which she wore a pessary, but for the last six months or so she has been obliged entirely to leave off the instrument, as it caused her so much pain. She now has a somewhat unevenly rounded tumour in the lower part of the abdomen, as large as, or larger than, a child's head. It is situated chiefly to the left of the middle line, but passes over towards the right side also; it does not extend up to the umbilicus. Fluctuation is easily felt in it, both on the skin surface and between the skin and the vagina, into which latter the tumour bulges. It is not movable. The uterus is freely movable, and appears healthy. There is no tenderness about the tumour. Although rounded, it does not project far upwards into the abdomen; and this fact, together with its fixity, militates against the diagnosis of ovarian tumour. The mobility of the uterus is against the existence of such a fixed tumour in connexion with it. The unevenness of the surface of the tumour makes the diagnosis of hydatid improbable. It is much too low to have any connexion with the kidney. Mr. Hutchinson thinks that most likely it is a large abscess behind the peritoneum in connexion with diseased bone in the sacrum or ilium. He has come to this opinion from the position, fixity, and fluctuating character of the tumour—features which are better explained by this hypothesis than by any other. The want of inflammatory thickening about it, although to some extent against abscess, does not exclude it.

Probable Hard Chancre on Eyelid.

A married man, aged 27, applied on the 1st inst. to Mr. Hutchinson, at Moorfields, with a round ulcer as large as a fourpenny-piece on the skin of the right upper lid near the outer canthus. The base of the sore was very decidedly indurated, but there was also a great deal of inflammatory swelling of the lids and conjunctiva, so that the precise conditions of the sore and its neighbouring induration were somewhat masked. There were several hard enlarged glands on the same side in front of the ear and behind the ramus of the jaw. There were no secondary symptoms, and no history of contagion could be elicited, so that the diagnosis could not be considered as then quite certain. The duration of the sore was probably about a fortnight, but the man did not give a satisfactory account. He was transferred to the London Hospital, under Mr. Hutchinson's care.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.

PENETRATING WOUND OF ABDOMEN, WITH LARGE VISCERAL PROTRUSION, AND LACERATION OF OMENTUM—RECOVERY.

(Under the care of Dr. JOHN WARD COUSINS.)

W. T. T., AGED 34, an engineer on board a steam collier, was admitted on October 14, 1871, in a state of collapse, having two hours before fallen eighteen or twenty feet from the side of the vessel into a boat. He was the "worse for liquor" at the time of the accident, and no very definite account of it could be obtained. On examination a lacerated wound of the abdomen was found extending from the cartilages of the seventh and eighth ribs downwards and inwards to the umbilicus. A large portion of the small intestine and part of the transverse colon, together with omentum, were found protruding from the wound, covered with coagula and dirt. The intestines were not injured, but the omentum was much lacerated, and free hæmorrhage was going on from several torn vessels. The wound through the parietes was very irregular. The skin was cut cleanly, but the muscular and fibrous structures were bruised and irregularly torn, as if the injury had been inflicted by some blunt instrument. The sheath of the rectus was lacerated, and the abdominal fasciæ were stripped off the cartilages of the ribs. The head and face were marked with extensive ecchymoses. The patient was confused; extremities cold, and pulse very small and feeble. The protruding viscera were carefully returned without delay, having been previously examined and sponged with warm water to remove all adhering blood and dirt, and the bleeding omental vessels secured with fine silk ligatures, cut off as short as possible. The omentum was replaced last, and the torn portion was left in apposition with the wound, which was then closed with seven interrupted sutures, and covered with carbolic oil dressing. The patient, after the operation, was placed in bed, supported by pillows. Fluid diet and a full dose of opium were ordered, and the House-Surgeon was directed to draw off the urine.

October 15.—Passed a quiet night, and takes nourishment fairly. Abdomen tender, but free from pain; urine scanty, and high-coloured.

17th.—Continues easy. Abdomen tense, and painful around wound; tongue coated.

19th.—Complains of irritability of bladder, and urine contains a great deal of blood.

21st.—Patient more comfortable; urine increased in quantity; edges of tongue cleaning; sleep refreshing.

23rd.—During last twenty-four hours has had several rigors; bowels have acted freely; urine still contains blood; tongue much cleaner. He was ordered to take twenty minims of tincture of perchloride of iron every two hours.

24th.—Much better; urine quite natural; no discharge from wound. Medicine ordered to be taken twice a day, and full diet.

29th.—Stitches removed. Wound completely united in every part.

November 1.—Patient left the Hospital to-day. There was a little fulness at the seat of injury, and he was directed to obtain an elastic abdominal bandage.

The following statement, carefully drawn up by Mr. Edward Madely, the House-Surgeon, represents the range of temperature, etc.:—

	Pulse.	Respiration.	Temperature.
October 15.—Evening . .	115	—	100·4°
October 16.—Morning . .	112	—	100
,, Evening . .	115	52	101
October 17.—Morning . .	110	26	100·4
,, Evening . .	104	28	100
October 18.—Morning . .	108	28	99·6
,, Evening . .	104	30	102
October 19.—Morning . .	102	32	101·6
,, Evening . .	115	34	103
October 20.—Morning . .	112	34	102
,, Evening . .	112	36	103
October 21.—Morning . .	98	40	101·2
,, Evening . .	80	32	101·2
October 22.—Morning . .	96	28	99·2
,, Evening . .	98	30	100
October 23.—Morning . .	88	29	99·2
,, Evening . .	90	30	99·5
October 24.—Morning . .	94	32	100
,, Evening . .	100	30	100·2

	Pulse.	Respiration.	Temperature.
October 25.—Morning . .	88	28	99·4
,, Evening . .	96	32	101
October 26.—Morning . .	85	30	99
,, Evening . .	82	29	98·4
October 27.—Morning . .	80	32	98
,, Evening . . .	96	32	98

Remarks.—The hæmorrhage was probably occasioned by some laceration of the kidney at the time of the fall. The discharge of blood occurred suddenly on the fourth day, coincident with reaction and inflammatory congestion of the injured organ. The rigors and frequent micturition indicated, too, renal disturbance, but fortunately on the ninth day these threatening symptoms rapidly subsided. The complete healing of the wound by first intention, and the rapid union between the deep portion and the lacerated omentum, considerably lessened the risk of abdominal inflammation. The patient's recovery was very rapid, notwithstanding the great severity of the injury and long exposure of the viscera.

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Medical Times and Gazette.

SATURDAY, APRIL 13, 1872.

ANNALS OF CHOLERA.

Anyone who is acquainted with Dr. Macpherson's writings will be prepared to meet with a laborious collection of facts, a cold, impartial, and rigidly sceptical method of sifting them, and the extremest reserve in drawing from them any hypotheses or conclusions that are not evident and undeniable. Such a method of treatment is nowhere more valuable or more necessary than in dealing with the literature of cholera. If ever we are to elicit any indisputable theory of its origin, propagation, and treatment, it must be by the aid of a severe criticism of the crowd of conflicting histories and statements which pass current concerning it.

In the "Annals of Cholera," which Dr. Macpherson has lately issued, the first thing which will excite the wonder of the popular reader are the words on the title, "from the earliest period to the year 1817," because this year 1817 is commonly taken as the birth-time of the disease. We hear, indeed, of the cholera of Sydenham or Hippocrates, but we are taught that the real Indian cholera was born at Jessore in August, 1815. Nay, the French have propounded a theory which attaches the guilt of originating cholera to the English rulers of India, whether by metaphysical causes, such as the degeneration of the Hindoo race under the spirit of commercial activity, or by physical causes, such as the neglect and dilapidation of the great irrigation works of their Mohammedan predecessors. Since such an opinion was propounded at the Constantinople conference, it is lucky that such annalists as Dr. Macpherson enable us to assert that cholera was first known to Europeans, along the coast where there were no waterworks, three hundred years before 1817.

It is incontestable that, from the earliest dawn of civilisation, whenever Physicians have written they have described a disease identical with cholera; and if their descriptions have been sketches, rather than pictures exhibiting all the fulness of detail common in modern pathology, still the symptoms omitted by one writer have been mentioned by another, so that we are certain of the identity of the disease in every particular.

Thus, the Father of Physic describes the vomiting and purging, loss of voice, dark sunken eyes, and suppression of urine. Celsus gives us the cramps in the limbs. Cœlius Aurelianus adds the premonitory *malaise* and consecutive fever. The disease is described, though not with equal clearness, in the ancient Indian and Chinese treatises on Physic. Paulus Ægineta, Rhazes, and Avicenna take up the tale with little diversity, and call the disease by the Arabic name *Haidsa*, which continues in use to this day. Cholera is described by the writers of the thirteenth and fourteenth centuries.

In Europe, during the sixteenth, seventeenth, and eighteenth centuries, cholera was well known, was divided into species, was associated with intermittent fever and dysentery; and whilst on the one hand, unlike dysentery, it was not considered *contagious*, on the other hand it was recognised as spreading *epidemically*—as examples of which we may quote the epidemics of London in the time of Willis, Morton, and Sydenham, not because they were the most considerable, but because they were most fully described. Epidemics of much greater severity are recorded in France, Germany, and America. But for all this the disease, at least in the eighteenth century, seems never to have produced a very startling mortality, and most European Physicians thought of it as quite a curable disease.

Far different was the case in India. We have (says Dr. Macpherson) an almost unbroken chain of evidence of the prevalence of cholera in India, sometimes in its milder, sometimes in its more malignant form, ever since the European route to India was established and settlements began to be made. Nay, says Dr. Macpherson, considering that the prevalence of cholera in India is exceptional and paroxysmal compared with the ever-present fever and dysentery, it is quite surprising to find the earlier notices so numerous and accurate as they are. Vasco de Gama reached India in 1497. The Portuguese began to settle in 1502, and the very next year were engaged in a campaign, during which they suffered from cholera and small-pox. From that day to this the same story is repeated, with occasional lulls. There was cholera at Hurdwar, up near the Himalayas, at the source of the Ganges, in 1783; and there was cholera at Vellore and Arcot, in the extreme south of India, in 1787. In fact, with occasional intervals, cholera was universally diffused. No new disease appeared in 1817; the Hindoos worshipped the old goddess by the old name; nor had the disease any new habits, save that it was more capable of spreading. But this did not start from Jessore; and Lower Bengal is of all parts of India that where cholera had been least prevalent before.

We are taught by the history of cholera that we must, respecting it, as well as respecting other diseases, take into separate consideration (1) the disease, (2) the power of spreading, (3) the means by which spreading is promoted.

The fact that diseases obey certain unknown laws of diffusion is clear from the occasional spread of cholera, from the phenomena of small-pox, which raged in Paris a year before it reached London, and at London a year before it reached Edinburgh and Dublin, and from the history which Dr. Scrivener has given us of the yellow fever, which, though more than once imported into South America, never spread till it occasioned the terrible epidemic at Buenos Ayres, of which he has given us the history. It is undeniable that the Indian

cholera has powers of spreading and of proving fatal to healthy adults which are not possessed by its English congener, though identical in symptoms. It seems to become from year to year more intractable and deadly, and it is lucky that its diffusiveness seems limited by laws as yet quite unknown. Human intercourse alone will not explain it, for many ships leave Calcutta with cholera in the crew, and yet how rarely it spreads!

THE MINES REGULATION BILL.

Amongst the measures of home legislation which the country has been promised during the present session, the Mines Regulation Bill holds a place second only in importance to the Public Health Bill. The Mines Regulation Bill, which has been read a second time in the House of Commons, and comes on for discussion again on Monday next, is in its general character a salutary and creditable measure. Its faults are faults of omission rather than of commission, and might be very easily rectified. But as quite as much evil is wrought through want of thought as through wilful act, so the omissions in this Bill, if allowed to remain, will, we may safely prophecy, reduce it to a very inefficient and unsatisfactory piece of legislation. The attention of the Profession has been recently directed to the defects in the Bill by an able pamphlet issued by the Association of the Factory Medical Officers of Great Britain and Ireland, and we think that this Association, over which Dr. Arlidge, of Newcastle-under-Lyme, presides, is entitled to no little credit for having exercised so opportune a vigilance in reference to a measure which deals with branches of industry lying outside the especial sphere of public duty assigned to its members.

The Factory Acts have been an acknowledged success. They prevent the employment of young children in factories, and they withdraw from such employment children unfitted by bodily debility, want of development, deformity, or by disease. In addition, they protect, in a certain measure, the workpeople against injuries from machinery, and against the hygenic evils of want of cleanliness and bad ventilation. They also enforce education for children under 13 years of age. These valuable results are obtained by the agency of an organised staff of Factory Certifying Medical Officers and of inspectors. The admirable results which have attended the working of these Acts in the manufacturing districts justify the assertion made in the Report of the Royal Sanitary Commission of last year—that the Factory Acts "form one of the most important parts of sanitary legislation." What these Acts have accomplished in the manufacturing districts is exactly what the Mines Regulation Bill might accomplish, and is intended to accomplish, in the mining. But in its present state it must, in a great measure, prove a failure. To quote from the pamphlet of the Factory Medical Officers, the clauses of Part I. of the Bill "regulate the duration of employment, prescribe proper intervals for meals, and arrangements for the education of children under 13 years of age. But they make no provision to guard against the employment of children and young persons who are disqualified by inadequate physical development or deformity, or by the presence of disease; and although they fix certain ages for commencing work, and for the enforcement of education, they lay down no plan whereby such ages are to be ascertained."

That such safeguards are absolutely necessary may be deduced from the experience of the Factory Certifying Surgeons. It is well known that large numbers of children are rejected in the factory districts, not merely on account of insufficient age, but on account of bodily defect and disease. That at present equally unfit candidates are sent at early ages to work in the mines is tolerably certain, and the early mortality from phthisis amongst some mining populations is thus partially to be accounted for. In addition to an unhealthy occupation, no attempt is made to shield the originally unsound from its deleterious influences. The ailing, strumous boy has not the slightest chance of resisting the evil effects of a metalliferous mine, any more than he could resist the deteriorating influences of a factory. Then, with regard to age, the Mines Regulation Bill, whilst it fixes certain ages for work and the enforcement of schooling, omits any plan by which the age of the child may be ascertained. The Workshops Act is almost equally defective in this respect. It permits a statement in writing only to be taken as evidence of age; and the result is that boys, rejected by the Certifying Surgeons under the Factory Act as of insufficient age, or on account of bodily infirmity or disease, obtain employment at workshops—that is, factories with less than fifty persons employed in them. But the Mines Act, as we have said, demands no proof of the age of candidates for employment in mines. A certificate of birth registration would be better than nothing; but the registration of births is not universal or compulsory, and there is the danger that younger children may borrow the certificates of older ones—a fraud which is quite within the experience of Factory Inspectors.

The fact is, that if it be the aim of the Legislature to make mining as healthy an occupation as possible, and to raise the moral and physical well-being of the mining population, it cannot do better than introduce the provisions of the Factory Act into the present Bill, at least in the particulars which we have pointed out. The Medical organisation is already in many instances at the very mouth of the mines; for by the Factory Act Extension Act blast-furnaces and forges are placed under the same conditions as other kinds of manufactories, and Medical certificates are required for the children and young persons employed. Even where this is not the case, the members of the Medical Profession who are already acting under the Factories Acts, and others who are practising in mining districts, would be quite ready to undertake the duties of Certifying Surgeons to mines. Without such a provision, the mining populations will remain open to many of the causes of physical degeneration which it is the special aim of this Bill to remove.

FREE LOVE IN AMERICA.

If an American on his arrival in England were to drive down Fleet-street and to buy the *Day's Doings* with its large and licentious woodcuts, which was lately hawked about openly, or if he were to walk up the Haymarket at night, and as the result of his experience were to declare that English literature was filthy and prurient, and that London was composed chiefly of public-houses and tobacco shops, and its inhabitants were thieves, bullies, and flash men about town, he would be just as correct as if the English were to take *Woodhull and Claflin's Weekly*, or Mr. Hepworth Dixon's scandalous "New America," as fair pictures and samples of American life and manners. To the large and reputable part of the American nation the opinions and practices described are as unknown; or, if known, seem as abominable as they do to ourselves. Alfieri once said of Italy, that "man as a plant grows more robust there than elsewhere, and that the very greatness of the crimes is a proof of it." So we may say of America, that man grows there with less restraint for good or for evil than here; and that the exuberant and monstrous moral deformities, the fame of which reaches us from across the Atlantic, do but shew the growth of ideas, the germs of which are found amongst ourselves, though here they are more under restraint. We may take them, therefore, as specimens of what we may expect when the restraints of our present political and religious system shall be relaxed, and when our lower classes shall have been cursed with an education which shall develope their volubility, their love of high-sounding rhetorical commonplaces, and that ignorant egotism which leads them to believe that the crude theories of "advanced

Plate III.

Mitral Regurgitation

I. C. R. Pr 1oz

II. A. W. Pr 1oz.

III. E. A Pr 1oz

IV. A. D Pr 1oz

V. E. P Pr 3oz

VI. J. M Pr 1oz

VII. S. T. Pr 6oz

VIII. Pr 6oz.

IX. W. H Pr 6oz

X. M. C Pr 3oz.

XI. C. L Pr 1oz Before Digitalis

XII. C. L Pr 1½oz After Digitalis

XIII. M. P Pr 5oz. 1871

XIV. M. P Pr 4oz. 13/2/71

Tricuspid Regurgitation

XV. J. L. Pr 4oz.

XVI. J. L. Heart apex.

XVII. J. G. Pr 2oz 20/12/71

XVIII. J. G. Pr 3oz 13/1/71

XIX. J. G. Pr 1½oz 19/12/71

Plate IV.

Mitral Stenosis

I. J. C. Pr 2oz

II. E. B Pr 8oz.

III. E. B. Pr 8oz. Exercise

IV. E. B Pr 7oz Digitalis

V. G. H Pr 4oz.

VI. G. H. Pr 8oz.

VII. G. H. Pr 4oz

VIII. C. D Pr 6oz. 5/71

IX. C. D Pr 2oz 14/6/71.

X. C. D Heart apex 14/6/71.

XI. C. D. Pr 3oz 28/1/72

XII. C. D Heart apex 22/1/72.

XIII. W. A. B. Pr 1oz. 13/2/72

XIV. M. A. B. Heart apex 15/2/72.

XV. M. A. B. Pr 1oz. 24/2/71

XVI. M. A. B. Pr. 1oz. 26/2/72.

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thinkers" can supersede the morality which has been handed down by our religious ancestors.

Amongst the most "advanced" of American papers is the *Weekly* of Mesdames Woodhull and Claflin, one number of which, with an elaborate oration on "Free Love," has been sent us for special notice; and if we give it that distinction, it is just because the description of a stinking ulcer is in its way as much a part of scientific study as is the contemplation of the most perfect and beauteous organisms; and because, *noscitur ex sociis*, we are able to see from the contents that "Woman's Rights," the proceedings of the "International Association," and the upsetting of all rights of property, of religion, morals, and decency are ardently desired by the patrons of *Woodhull and Claflin*, who report and applaud the proceedings of Citizens Odger, Dilke, and Bradlaugh in this country. The present attack of the American clique is directed against "the family" in all its essentials. That one man shall be knit in bonds of holy matrimony to one woman for life; that a man shall call his wife *his own*, his children *his own*, and that he shall be bound to rear them and take pleasure in the task, are Old World absurdities to be done away with. Men and women are to be free lovers, and the children are to be the property of the State, which is to educate and maintain them.

The oration on "Free Love," printed in conspicuous type, is the work of Mrs. Frances Rose Mackinley, and we may say the only thing in her favour is, that she states somewhat ambiguously that she is not a free lover herself. In a wordy and mystical exordium she intimates that love in man and woman is of the same nature with chemical attraction, and that freedom of love is as essential and inherent a right of theirs as freedom to unite or disunite is of chemical atoms. The matrimonial tie is mere selfishness.

"The freedom I contend for (says the orator) is now habitually assumed in private by all who desire it or find it a necessity of their natures, whatever may be their public and formal pretences.

"Obedience to the conventional restraints of marriage is practically among men such an absurd assumption that, as no one practises it, no one believes it in others.

> 'That household virtue, most uncommon,
> Of constancy,'

as Byron calls it, grows more and more uncommon, as reason takes the place of

> 'Hoary error, grown holy by traditional dulness.'

"If, with the power of Asmodeus, we could, for one night, unroof the houses of this city, what husband or wife would be secure from some revelation of that undercurrent of life of which its shining outward surface gives no intimation. . .

"In a perfect condition of society, special loves, which jealously demand the entire consecration of one to the other, will be almost unknown. The fire and enthusiasm and passionate ardour which are now confined to two lovers who feel only for each other, will be shared by all the members of such a community.

"Imagine a society, even as large as the world, where all the inhabitants have the freedom and intelligent recognition of each other's rights which will make them accordant—where all are as developed as it is possible in earth-life, each prompted by a divine humanity, understanding, caring for, and helping the other. Sympathies between them would be continually alive, and their loves as natural and poetical as those of the plants.

"This is what would be called to-day promiscuousness, or anarchy; but in such a consonant state of society it would be as the harmony of the spheres. To the believer in free love, this anarchy, these wild and instinctive vagaries of humanity seeking the true laws of love, are but means to the great end of nature.

> 'All discord, harmony misunderstood;
> All partial evil universal good.'"

The world is to be regenerated, and the human race brought to perfection in America:—

"Never before in the history of the race has there been such an awakening of woman to a sense of her rights and duties, and the broadest field opening for their exercise, as now in this country. It would seem like one of these strange historical analogies, or cyclic recurrence of similar phenomena, which so startle the student of history, as revealing the periodicity of the laws of evolution; as if the free-loving, æsthetic, tasteful, sensuous, and nature-adoring life of ancient Greece of the age of Aspasia were to be renewed in this country with the modification of American civilisation. How free the Greeks were in their love is expressed in their worship. Indeed, all religious worship is love, ultimating in veneration. All antique myths are founded, in all their recitals of the life of the gods and goddesses, upon free love—upon the most thorough abandonment to its two principles, freedom and love. Venus, the goddess of universal love, and the patroness of perfect freedom in the relations of the sexes, was adored, under various names, in all mythologies; and her son Cupid, the inspirer of love, was called 'the god of gods.' . . . .

"Free love, as a philosophy, science, art, and rule of life, will be the practice of this perfected race, as it will have been the means of their development. . . . .

"Marriage, or matrimony—making one woman the sole mother of one man's children (the meaning of the last term, as its etymology indicates)—is the pettiest of the methods adopted by the artistic energy of nature in the admixture of these types of mankind, now for the first time brought altogether in this cosmopolitan civilisation of America. . . . .

"The soldier, sailor, and traveller are as naturally free lovers as they are free thinkers. Prejudices are bred in the bounded horizon of narrow localities, and roughly dissipated by the knowledge and sight of the world."

Of course when no child has any father in particular, it will be vain to expect one to support it:—

"The State now provides for the education of children. The next step must be that it will take upon itself the control and support of them.

"Mothers and fathers must learn to love other people's children as well as they love their own."

The respect paid to marriage is all hypocrisy. Women "who sell the joys of their body for money" are called prostitutes; but it is very unjust to call these public benefactresses by a name of reproach. Is a prostitute who sells the joys of her body worse than a lawyer, doctor, or parson, who sell the use of their tongues or brains? The term "prostitution, as applied to free sexual intercourse, is a prostitution or perversion of its etymological meaning. . . The *social evil* is a social necessity growing out of the imperfection of our social conditions." In few words, would anyone abolish sexual crime, as fornication, adultery, abortion, and child murder,—the thing is easy: abolish all laws and customs which restrict sexual indulgence, and then there can no more be adultery than there can be theft where there is no property.

"A true free lover will bind none, would hold none, except as the other is willing to be held and bound. The most passionate lovers, after the wild enjoyment of fruition has endured for a certain period, cease to physically allure each other. A constant interchange of magnetism exhausts, by a physical law, the conditions of attraction, which are then instinctively sought elsewhere. A true free lover, instead of deploring this physiological fact, submits to and acknowledges the philosophy of circumstances, and seeks to discover the cause of this magnetic repulsion.

"Had Fisk and Mansfield been free lovers, they would have both been spared the tragedy and anguish that have been theirs. The beautiful Josie would have acknowledged the freedom of her lover to devote his attention and passion to another, as she had acknowledged his freedom to devote it to her, or as she claimed and exercised a like freedom for herself."

We have thus developed the hideous ulcer which these American women desire to establish in the body social. The Americans, as a civilised people, despise and abhor them; but it is well to remember that they are but outcrops of the great Red Republican or Socialistic, Democratic, and Secularist conspiracy. The Americans wonder that we in England, who see the serpent fully developed there, are so willing as some of us seem to be to toy with the Woman's Rights people—Republicans, Internationals, and Secularists—who are trying to hatch some of the serpent's eggs here. It is one characteristic of these people, that whilst they have no more faith in Medicine than in Religion, they regard Spiritualism and its kindred quackeries with the most abject devotion.

THE WEEK.

TOPICS OF THE DAY.

Sanitas sanitatum, sanitas omnia, is an admirable cry, but it is neither a Conservative nor a Liberal sentiment, to judge by the cold reception which the Public Health Bill received when it came up for second reading. Dr. Lyon Playfair twitted the Conservative party with their indifference to the adopted watchword of their leader; but in truth, neither side of the House showed much interest in the health of the nation. The Bill was read a second time, but it will have a good deal of criticism in committee. Two deputations have made a visitation on Mr. Stansfeld respecting it—one of the body of philosophers who issue from the Social Science Association, and who dwelt chiefly on the theoretical and administrative features of the Bill. The objection to Dr. Rumsey's schemes is that they are too elaborate, exclusive, expensive, and technical to be accepted by a practical country. As studies of that theoretical perfection which philosophers desire they are perfect; and it is something to have a high standard set up, though it may be unattainable. The other deputation (of Medical Officers of Health) avoided all theoretical questions, and seemed animated with the desire to push through what promises to be a very valuable Bill.

We do not think the statement of Mr. Cardwell with regard to the Militia Medical Officers will be at all satisfactory to those gentlemen. He cuts off the duties which have produced the principal part of their income, and holds out but a very faint hope of granting them any compensation. It is a matter on which the Medical members in the House of Commons should exercise their vigilance.

Lord Abinger's meeting of governors at the Royal Orthopædic Hospital was held on Tuesday, and resulted in a very small majority in favour of the Committee whose report led to the resignation of Messrs. Adams and Tamplin. The Assistant-Surgeon, Mr. B. Brodhurst, who through this resignation has acquired the position of Senior Surgeon to the Hospital, defended himself, whilst—as will be seen from a letter we publish elsewhere—he does not contradict the chief statements made in Lord Abinger's letter. To our limited capacities the share he seems to have taken in the proceedings which have led to these changes in the staff is utterly incomprehensible. We certainly think it a matter which ought not to be left unsifted by the bodies at the head of the Medical Profesion.

The trial of William Chester Minor, the American Surgeon who killed George Merritt at Lambeth, has resulted, as was predicted, in a verdict of "Not guilty" on the ground of insanity, and he is ordered to be detained in safe custody during her Majesty's pleasure. The evidence of insanity in this case was very clear. Mr. Minor had been already in a lunatic asylum, and whilst in gaol on the present charge had given ample proof of unsoundness of mind.

PROFESSOR STOKES'S DISCOURSE ON PUBLIC HEALTH.

It is needless to call the attention of our readers to any production of the Dublin Regius Professor of Physic, yet we may give ourselves the pleasure of pointing out how in some controverted matters his opinions are the same as those which our own columns have advocated. We would especially invite our brethren of the Poor-Law Medical Service (or, as we should be glad to call them, the Local Public Physicians and Surgeons) to weigh well what Dr. Stokes says of their employment as Medical Officers of Health. We would also ask our readers to compare his views of the natural history of epidemics with those of Dr. Macpherson, and to note that those distinguished Physicians, whilst not neglecting one item of what is commonly called sanitary work, nor yielding to the inaction of despair, are yet far from countenancing the tone of easy exultation with which some ill-instructed sanitarians speak of stamping out epidemics. "How many great epidemics," says Dr. Stokes, "have died out, ere sanitary reform was thought of."

THE STUDENTS' ROW IN PARIS.

Our Paris correspondent says that the Minister of Public Instruction is determined to put an end to the periodical riots which disgrace the Medical School at Paris. For the present, the great iron gates remain grimly closed against the whole body of students, with a written notice affixed, dated April 8, telling MM. les Étudiants that no decision has yet been come to respecting the resumption of the lectures. The tumult began with an accusation against the Surgical Professor Dolbeau, that he had betrayed a Communist patient to the Versailles troops to be shot. This accusation is quoted from the *Revue Scientifique* in another column, but our correspondent assures us that the man is alive and at liberty, and grateful to M. Dolbeau. The official inquiry into this matter was undertaken entirely at the instance of the Professor.

A GOOD EXAMPLE.

The cry against the penal clause of the Vaccination Act has been raised in many quarters with a vehemence and consistency which may possibly be detrimental to the cause of vaccination. Petitions have been presented to both Houses of Parliament against this clause, and every means have been taken to have it modified or rejected. We are glad to notice, therefore, that the Manchester Board of Guardians last week decided to petition Parliament against the clauses in the new Vaccination Bill to the effect that no parent shall be liable to be convicted for neglecting to have his child vaccinated if he has been previously adjudged to pay the full penalty of 20s., or has been twice previously adjudged to pay any penalty, and in favour of the law being left in its present state.

A MITE FOR NAVAL ASSISTANT-SURGEONS.

The Admiralty are trying how a little courtesy may affect candidates for the office of Assistant-Surgeon in the Navy. The "boon" is almost too small to acknowledge; but, like a straw, it shows the "way of the wind." It has been decided by the authorities that in future Assistant-Surgeons of the Royal Navy shall not be compelled to pass their qualifying examinations at Somerset House, but shall be examined on the station where they may be serving when they have complied with the regulations.

UNION MEDICAL OFFICERS.

With a view of obtaining the "best possible Medical attendance" for the paupers of the Union, the Bromyard Board of Guardians seem desirous of appointing a Medical Officer to that Union who will devote the whole of his time to the fulfilment of the duties of that office. At all events, they have applied to the Poor-law Board for a return showing how many unions in England adopt the system they contemplate adopting. We should anticipate the number of such unions might be almost counted on the fingers.

ACCIDENT TO A SURGEON.

The *Indian Mail* of this week records a sad accident which occurred on board the flagship of the flying squadron when running from Rio de Janeiro to the Cape of Good Hope. Whilst the *Narcissus* was contending with a heavy gale, Dr. Jack, the Staff Surgeon, was ascending the ladder from the lower deck, and, falling back, fractured his right arm, and was otherwise so much injured that he was compelled to invalid.

TESTIMONIAL TO A SURGEON.

A most gratifying ceremonial took place last week at Carnaveron Alford, Aberdeenshire, when Mr. James Walker, Surgeon of that place, was presented by his neighbours and

friends with a massive gold watch and chain, "in appreciation of his sterling worth and integrity as a Medical Practitioner for a period extending over fifty-two years." Mrs. Walker at the same time was presented with an elegant silver tea-service as a "small token of respect and esteem."

SMALL-POX JOTTINGS.

The favourable reports we have lately given of the small-pox epidemic at Aberdeen continue. Last week there were only eighteen patients in the Hospital, and out of a total of 153 patients received into it, 110 have been discharged cured, and only twenty-five deaths.——During the past week one fresh case of small-pox was reported in Islington, as against two in the week before. There had been two deaths from the disease.—— In Poplar during the past fortnight there had been twelve deaths from small-pox registered in the Union, and thirty-nine new cases had been brought under notice. During the same period seventy-seven persons were vaccinated at the public stations. There were twelve small-pox patients under treatment in the North-street Infirmary.——Considerable progress has been made with the subscription for providing a convalescent home for small-pox patients in Dublin, as a necessary means for checking the progress of the disease. At a meeting last week, presided over by the Lord Mayor, £500 was subscribed in the room.——In the Holborn district, in the past three weeks, three deaths occurred from small-pox; and after an interval of a month without there being any case of small-pox, there has been a sudden outbreak of the disease. Seven fresh cases are reported; the sufferers had all been vaccinated, and were all adults in age.——The deaths last week in the metropolis from small-pox, which in the three previous weeks had been 42, 48, and 55, further rose last week to 65, and exceeded the average by 23.——Dr. Aldis, St. George's, Hanover-square, reports in the week ending the 6th instant, four cases of small-pox, three of which were sent to the Hospital.

SMALL-POX IN DUBLIN.—DEPUTATION FROM THE CITIZENS TO THE CORPORATION.

On Monday last an influential and representative deputation waited upon the Municipal Council of Dublin for the purpose of urging the necessity for the establishment of a Convalescent Hospital for small-pox patients and such other persons as were recovering from acute and contagious diseases. Under the Sanitary Act, the Corporation of Dublin possesses power to levy rates for the maintenance of such a Hospital. Sir Dominic Corrigan, Bart., who was one of the deputation, raised a legal point, believing that, according to the Acts of 1855 and 1866, the Poor-law Guardians were the proper and only authorities who could deal with the matter. The Vice-Chancellor of Ireland and the Right Hon. Abraham Brewster, Ex-Lord Chancellor, took exception to Sir D. Corrigan's view of the case. The Archbishop of Dublin, who headed the deputation, thanked the Lord Mayor for the courteous reception accorded to the members of it, and entrusted the subject to the further consideration of the Corporation.

SMALL-POX.—MEETING AT THE MANSION HOUSE, DUBLIN.

Pursuant to requisition, a numerously attended and most influential meeting of the citizens of Dublin was held on Friday week, for the purpose of considering what steps should be taken in the endeavour to stem the progress of the prevailing epidemic of small-pox, and for the relief of those who chiefly suffer from its effects. The first resolution, recommending that a convalescent home should be established without any further delay, was moved by the Archbishop of Dublin and seconded by Sir James Power, Bart. The Rev. Canon Farrell, P.P., proposed that a deputation from the meeting should be permitted to attend the next meeting of the Municipal Council, with the view of urging the necessity of promptly establishing a Hospital for patients discharged from the ordinary Hospitals, or not perfectly convalescent. Under the Sanitary Act, as remarked by Sir John Gray, M.P., who seconded the motion, the Corporation had the power of constructing such a Hospital and of levying rates for its maintenance. The Vice-Chancellor of Ireland moved—that as the epidemic had been the cause of extraordinary distress and poverty, the formation of a relief fund was an urgent necessity. He was seconded by Mr. James Stirling, an extensive employer of labourers. A committee was then appointed to control the administration of the relief fund, and on it were placed the names of clergymen of various denominations, Medical men, and Poor-Law Medical Officers, with barristers and merchants. The last resolution, which was entrusted to two representatives of the Medical Profession—Drs. Evory Kennedy and William Moore—was to the effect that the establishment of a sanitarium, to which the inhabitants of infected dwellings might be removed for a time, during the process of disinfection, was desirable; and that it was expedient to put in force the provisions of the Diseases Prevention Act, 18 and 19 Vic. A subscription-list was opened, and a sum of over 700*l.* was subscribed before the meeting separated.

VACCINATION IN JERSEY.

Jersey is still recalcitrant with respect to vaccination, notwithstanding the prevalence of small-pox in various parts of the island. We learn from the Jersey papers that Dr. Low, the indefatigable and able advocate of vaccination, brought his Bill, last week, before the Jersey "States." This Bill seeks to make vaccination compulsory, providing for the vaccination of all children at the age of 6 months, and for their revaccination at the age of 10 years. The measure, as was expected, met with great opposition, and the debate upon it was adjourned. The small-pox, therefore, continues unopposed.

A NEW WAY OF CHOOSING YOUR DOCTOR.

Our Irish friends are original in many respects—they have a half-humorous, half-savage way of doing some things. To wit: A few days ago a gentleman named Middleton, residing near Mullingar, received a letter, intended, as it appeared, for his son, who is a Medical Practitioner, and threatening his life if he should attend the Milltown Dispensary, because "they" —the persons represented by the writer of the letter—preferred a certain Dr. Hornidge.

FROM ABROAD.—OPERATIONS IN PUERPERAL WOMEN—HYPODERMIC INJECTIONS IN SYPHILIS—INTRAMUSCULAR INJECTIONS IN TETANUS.

The question of the performance of operations in pregnant and puerperal women has of late been several times before the Paris Société de Chirurgie (*Gazette des Hôpitaux*, Nos. 32, 33, 35, and 36), and the following are the opinions expressed by the various speakers:—

The discussion originated on the presentation by M. Tarnier of a fibro-plastic tumour of the vulva, weighing 470 grammes, which he had removed after delivery as soon as the lochia had disappeared. This tumour had rapidly increased during pregnancy until it attained the size of a fœtal head. After delivery (which was easy) it diminished by one-half. M. Tarnier regarded the case as an exemplification of the propriety of the rule of not removing tumours or vegetations of the vulva until after delivery. Such tumours during pregnancy acquire a hypertrophy which will be followed by a degree of atrophy; while in the case of vegetations, there is the danger of causing hæmorrhage or abortion. M. Depaul considered this last caution as somewhat exaggerated, having operated in such cases without inducing abortion. As, however, there may be considerable hæmorrhage, he does not remove all the vegetations at once. He remembered one remarkable case, in which the vegetations, forming a "bouquet" the size of an

adult head, were removed by two operations under chloroform. There was considerable hæmorrhage, which was arrested by chloride of zinc caustic. The woman, who was five months in pregnancy, went her full time without accident. M. Chassaignac was of opinion that no absolute rule can be laid down in these cases. He has removed the vegetations in pregnancy by means of the écraseur, for they sometimes constitute a serious disease, owing to the excoriations, discharge, and horrible fetor. As a general rule, however, he avoids operations during pregnancy. Abscess of the vulva should be opened by a small aperture (the trocar being the best instrument) on account of hæmorrhage, which, however, is usually easily controlled by hæmostatics. M. Blot also thinks that we cannot absolutely proscribe operations during pregnancy. If vegetations cause great inconvenience, we should try the effects of tannin or other astringents. Where the indication is not pressing they should not be removed for fear of hæmorrhage; and when this is a necessity, *écrasement* is to be preferred. M. Depaul, in accordance with Dubois and other authorities, as a general rule would discountenance operations during pregnancy, but a troublesome tumour may require removal. Vegetations should not usually be removed, for after delivery they may atrophy, while during pregnancy they may be kept under by astringents.

M. Verneuil, in reference to the question of how long a period ought to elapse before operating after delivery, observed that he thought this should be at least two months. The cases in which he has operated after six weeks only have failed; and it is well known that when operations for vesico-vaginal fistula fail, they cannot be repeated under three months. He disapproves of operating during pregnancy in any but urgent cases, and referred to examples in which abortion was the result. M. Trélat remarked that no absolute rule can be laid down as to not operating during pregnancy, and he believes that from three to six months should elapse before undertaking operations after delivery. Some of the instances of abortion produced through operations cited by M. Verneuil might really have arisen from the affections calling for interference. M. Guéniot observed that, while a narrow wound might give rise to abortion, one of larger dimensions would allow pregnancy to go on. As to operations after delivery, the time for these would depend upon the return of the parts concerned to their normal condition and the re-establishment of their functions. M. Desprès stated the results of his experience at the Lourcine. In six women, from 17 to 20 years of age, and from three to seven months advanced in their first pregnancies, he removed enormous masses of vegetations, and in none of them did abortion ensue. Moreover, the speculum is employed in pregnant women, and in them vaginitis is always treated at the Lourcine with alum plugs without abortion being induced. M. Boinet was of opinion that urgent operations should not be too long delayed after delivery. Thus, in rupture of the perineum, he has practised sutures immediately with good results, the sojourn of the lochia in the wound being thus prevented. M. Tarnier had in such a case operated on the forty-fifth day after delivery, thus waiting until the lochia had disappeared. As, according to Wieland, there are still remains of uterine hypertrophy after the first menstruation, it would seem best to delay operations until after the second period. In reference to M. Desprès' statement of the innocuity of the alum plugs at the Lourcine, he observed that these were very different to the plugs employed by the accoucheur for the purpose of producing abortion. M. Blot objects to hasty operations for ruptures of the perineum. These may only involve the skin, or the deeper parts as well. In the former nothing should be done, for they will cicatrise spontaneously; and when the rupture is extensive sutures will not suffice. Three or four menstrual epochs, or even more, should pass before interfering; and by that time the size of the aperture will be found much reduced, and in some cases even to have spontaneously healed or have become capable of treatment by cauterisation. The operation should be delayed as long as there seems any disposition to contract. M. Demarquay observed that it is not surprising that operations should lead to abortion, for even in non-pregnant women it is common to find them causing the appearance of menstruation before the period. He has frequently removed vegetations, operating at several times, and employing the actual cautery. He has never met with abortion in these cases. Some operations should not be delayed long after delivery. Thus, suture of the perineum should be at once performed, as it is neither difficult nor painful, and may be executed without the patient being aware that anything more than a dressing had been applied. He operates at the end of forty-eight hours, passing only one suture, and is usually successful, there being a great tendency to union at first. If this suture fail, a second may be applied—still without the knowledge of the patient, whom it is desirable not to alarm by the fear of an operation. Notwithstanding the opinions of MM. Desprès and Demarquay, M. Tarnier persists in believing that vegetations should not be removed in pregnant women, and the cauterisation of the wounds they recommend shows that they believe serious accidents have to be guarded against. The vegetations, too, may reappear after operation, and when they occupy the vagina as well as the vulva they cannot all be removed. On the other hand, we can very well assuage the suffering they cause by desiccatives, and so tide on until after delivery. M. Tarnier cannot understand how a suture can be applied to the perineum without the patient being aware of it, for she has to be placed in position for the purpose, while in some cases a long time is required for the procedure. M. Demarquay stated that with Blandin's curved needle the operation can be easily performed while placed at the side of the patient. M. Blot observed that one of the cases adduced by M. Demarquay was not an example of true rupture of the perineum, but of a kind of division made by the forceps during delivery. In such a case sutures might succeed; but in true rupture there are contusion and even partial gangrene, which prevent any immediate union. If success is to follow, the edges of the wound must be vivified. Lacerations occurring after rapid labour are alone capable of uniting. M. Guyon stated that in cases in which the rupture was not very extensive he had successfully employed small *serres-fines*, according to the method of Danyou.

The following is the summary (*Boston Journal*, February 22) of the results of the treatment of syphilis by hypodermic injection of the bichloride of mercury derived from extensive trials made by Dr. R. W. Taylor, of New York:—1. Though a method possessing certain advantages, it is, for various reasons, but of limited application. 2. It is useful in the whole period of secondary syphilis, in roseola, in the various papular syphilides, and in that form of pustular syphilide in which there is only a slight tendency to the formation of pus. 3. It very rapidly cures all syphilitic neuroses, and is very beneficial in the cachexia of syphilis, whether accompanied or not with perceptible lesion. 4. It possesses no advantage over other modes of administering mercury in the treatment of mucous patches and condylomata lata. In the syphilitic lesions of the nervous system and of bone, particularly if late, its use is not to be commended. 5. The very early tertiary syphilitic lesions, provided that they are not of an ulcerative character, may be very much benefited by it; and the simultaneous use of iodide of potassium internally may produce a more rapid cure than when given with mercury internally. 6. The peculiar advantages of the method consist in the smallness of the amount of mercury used, the rapidity of action, and the absence of systemic disturbance. 7. A very minute quantity of mercury, averaging from two to three grains, thus administered may cause the disappearance of very extensive syphilitic lesions and the alleviation of very severe symptoms. 8. In the greater number of cases, an injection every second day of one

eighth of a grain of the bichloride will produce a cure in rather less than two months. In very urgent cases the injections may be pushed to the extent of one or two daily with good effects. 9. Rapidity of cure is the rule rather than the exception, and the time required may be stated as varying between three weeks and two months. 10. When the injections are used only every second day it is very rare to observe any unpleasant systemic effects; and even when they are pushed farther than this their effects are never so severe as when mercury is pushed to a similar extent by the mouth. 11. Relapses are as frequent, as rapid, and as severe as when mercury is given in other ways. 12. There are unpleasant local effects, such as pain of the punctures and over the site of the injection, induration of the connective tissues, and abscesses. In many cases the pain is slight and transitory, but in others it is so severe as to compel a discontinuance of treatment; and in all cases there are some slightly unpleasant local effects. 13. In exceptional cases a low grade of inflammation in the subcutaneous connective tissue produces a decided induration in deep portions of the derma, rendering it advisable to discontinue the injections. In many cases, however, the induration is only of an ephemeral character. 14. If proper care be taken in administering the injections, abscess will rarely, if ever, occur. 15. It is absolutely necessary that the patient should be both intelligent and thoroughly impressed with the gravity of the disease, in order that he may comprehend the advantages to be derived from this method; otherwise he would not subject himself to the inconveniences attendant upon it. 16. While in Dispensary or Hospital practice the injections may be frequently given, the smallness of a patient's means may often be an obstacle in the way of the continuance of the treatment in private practice. 17. While in some cases this method may be useful by means of its rapid action, and in others for the smallness of the dose, the inconveniences which it produces, the objections of patients, and the presence of lesions which contraindicate its use confine its sphere of usefulness to very narrow limits.

We have already made known to our readers (*Medical Times and Gazette*, October 7, p. 499) the results obtained by M. Demarquay from the employment of intra-muscular injections of a solution of morphia in traumatic tetanus, and we now learn from the *Gazette des Hôpitaux* (March 30) that he has made further trials of this means. The constant failure of all medicines administered by the stomach in the very numerous cases that came under his care during the siege led him to adopt the intramuscular method. He had also his attention strongly drawn to the fact that tetanic subjects are very susceptible of cold, so that under the influence of cool air the contractions were often rendered more intense and more painful. These contractions and the trismus, indeed, especially call for attention, by reason that they may give rise to death from painful exhaustion, and that they impede nutrition. As it is not yet known whether traumatic tetanus is dependent upon a lesion of the nervous system, it is incumbent upon the Surgeon to attack the contraction as a symptom. To this end, the patient should be placed in a spacious chamber, which is kept at a temperature of from 64° to 72° F., and an injection of from twenty to twenty-five drops (muriate of morphia 1, water 50 parts) should be thrown into the interior of the masseter muscle, as near as possible to where the nerve which supplies it emerges. Some minutes after the pain and contraction cease, and the patient is enabled to swallow broths or to assuage his distressing thirst. To the two cases of traumatic tetanus which M. Demarquay has already reported as cured by this means he now adds one of chronic tetanus:—

This patient, from the country, aged 35, was admitted into the Maison de Santé on February 21. On January 13 he had fallen from a vehicle, and had received some slight wounds of the leg. Soon after taking cold on the 21st, he exhibited tetanic symptoms, so that, according to his own account, he had not been able to separate his teeth for a fortnight, and suffered severe tetanic pains in the limbs and base of the chest, these being accompanied by utter sleeplessness. On his admission he was found suffering from cramp in the limbs, the recti muscles were rigid and projecting, and the jaws could only be separated by 1½ centimetre. He was at once placed in the warm chamber, and an injection was made into each masseter, warm drinks being also ordered. On the following days injections were made into the recti muscles, the limbs, back, and in fact wherever the painful contractions manifested themselves. In from two to five minutes afterwards, first the pain and then the contractions ceased—the group of muscles to which the injected one belonged remaining from half an hour to five or six hours without a reappearance of contraction. They produced an abundant sudation and stimulation of the skin. The patient's sleep and power of digestion also were restored. From eight to ten injections of 1½ centigramme of the mixture were made in the twenty-four hours, and no suppuration was produced in the substance of the injected muscles. On March 1 the patient was able to be up, and continued to do well, with the exception of some slight relapses, always brought on by chills. He left the Maison on the 17th.

It may be objected that cases of chronic tetanus are usually cured; but however this may be, these three cases prove that intramuscular injections have the power of subduing not only the pain, but the contractions, and that by relieving the trismus they allow of the patient being supported. It is evident also that it is of great importance to have at our disposition a means which even temporarily relieves contraction of the masticatory and respiratory muscles. The maintenance of a constant elevation of temperature and injection of morphia subdue the two elements, cold and pain, which bring into play the excito-motric action of the spinal cord, upon which the tetanus depends.

PARLIAMENTARY.—MILITIA SURGEONS—THE PUBLIC HEALTH BILL—THE CONTAGIOUS DISEASES ACT.

In the House of Commons, on Friday, April 5,

Sir E. Lacon asked the Secretary of State for War as under the new regulations Militia Surgeons were not allowed to examine recruits, give Medical attendance to the permanent staff, or to attend preliminary drill of the recruits, from which sources the principal part of their pay had hitherto been derived, and as many had partially or wholly abandoned private practice to enable them to perform their Militia duties, in what way he proposed to remunerate them.

Mr. Cardwell: It is, I hope, to be expected that a considerable saving will be expected in this respect, as in some cases at least the expenditure has been larger than can be justified. I am not prepared at present to give any undertaking with respect to compensation, beyond saying that if any claims be put forward they will be properly considered.

On the second reading of the Public Health Bill being moved,

Mr. J. Fielden, who had given notice of his intention to move its rejection, intimated that he should reserve his opposition for committee. At the same time he criticised various portions of it, objecting to its tendency to over-centralisation, and to the clauses relating to the pollution of rivers and the disposal of sewage, which, he believed, it would be impossible to carry out.

Dr. Playfair gave a warm support to the general principles of the Bill, and offered some suggestions for the improvement of its details, especially insisting on the expediency of enlarging the areas, and raising the qualifications for the Health Officers as high as possible. Ventilation and cleanliness were the two chief objects, and if these were secured the Act would not have been passed in vain.

Sir H. Selwyn-Ibbetson, while generally supporting, demurred to the local authorities proposed for the rural districts, thinking that the boards of guardians were already overworked.

The discussion was continued for some time in the same vein of desultory criticism of the clauses by Mr. Whitwell, who deprecated striving after too high a standard in regard to the pollution of rivers, and by Mr. Dimsdale, who canvassed the measure under three heads—the improvement of labourers' cottages, the pollution of rivers, and the rural boards. Mr. Muntz, Dr. Lush, and Mr. Corrance urged almost identical objections to selecting boards of guardians; and

Sir C. B. Adderley replied to these objections, pointing out that to create new bodies would have taken time, while the subject would not wait; and that by taking advantage of these bodies and their staffs there would be a considerable saving. Sir Charles, while repeating his regret that consolidation had been postponed, eulogised the Bill, which would complete and give vitality to our present system, and asserted that it would not cost the ratepayers a shilling which would not be remunerative.

Sir T. Acland also approved the selection of the boards of guardians, but at the same time urged the importance of improving the local boards.

Mr. Hardy, though conscious of the defects of the boards of guardians, did not object, under the circumstances, to make them the local authorities, but insisted on an independent inspecting authority. Moreover, as the present authorities failed in their duty chiefly through ignorance of their powers, he suggested that a digest of the present law should be drawn up and circulated among them.

Mr. W. H. Smith complained that some of the most important clauses did not apply to the metropolis.

Mr. Stansfeld, in replying, explained at length his motives for choosing the union as an area and the guardians as the local authority, and defended the clauses relating to the pollution of rivers. With regard to the Medical Officers, Mr. Stansfeld said it was his intention that the Act should be started with a competent staff, and he meant to propose a vote to Parliament for the purpose. As to Mr. Hardy's suggestion for a digest of sanitary law, he stated that he had one already in hand.

The Bill was then read a second time, as also was Sir C. Adderley's Public Health and Local Government Bill.

On Monday, in answer to Sir J. Trelawny, who indulged in some severe reflections on the Government for abdicating its responsibility in the matter, Mr. Bruce promised that ample notice should be given of the second reading of the Bill repealing the Contagious Diseases Act, in order that Sir J. Trelawny might have ample opportunity of moving his contemplated "call of the House."

ON STATE MEDICINE.

A Discourse delivered before the University of Dublin, on Saturday, April 6, 1872,

By WILLIAM STOKES, M.D., F.R.S.,
Regius Professor, etc.

After an eloquent exordium, in which the nature, importance, and branches of State Medicine are described, and a sketch given of the Report of the Royal Sanitary Commissioners, of whom Dr. Stokes was one, and of recent efforts at legislation down to Mr. Stansfeld's Bill at present before Parliament, the distinguished Professor continues:—

The proposal to employ the Poor-law Medical Officers as Officers of Health has been objected to by some able writers on two grounds principally—one, that the education of these gentlemen has not been sufficient to enable them to deal with questions of State Medicine; and the other, that from their too often dependent position in relation to members of local boards, they will be crippled as to their action for the public good. This last objection would, I believe, apply far less to Ireland than to England.

But granting that they have some foundation, what is the proper way of meeting them?

It may be admitted that in many rural districts the education of the Dispensary Medical Officer, sufficient to qualify him for being placed on the Register, is often so completely technical that he cannot do more than deal with curative Medicine as he best may. Should such a man be called to report on questions of State Medicine, he will probably be found, at first at least, defective. But necessity is a great instructor, and it is in the nature of things that he will every year improve. Self-education can do wonders. He will be assisted by skilled inspectors, and his good sense, probity, and honourable ambition will do the rest.

With respect to the second objection, if it be true, so much the worse for all parties. But there are better times coming. The Dispensary Surgeon will be placed in a higher and more secure position, from having to perform duties which are related, not to his district solely, but to the public weal. He will be in communication with the Minister, as it were *inter instrumenta regni*—not like the Roman prisoner of old, for purposes of evil, but for those of good—and cannot be displaced without his sanction. Therefore he will in time be treated with greater consideration, and the country will come to perceive that professional honour implies public safety.

It is clear that similar Commissions with a view to sanitary legislation should be issued for Ireland and Scotland; for if ever there was a case demanding similar legislation for the three countries it is that of public health. The machinery of the law may require to be varied in the three kingdoms as regards local authorities and areas of taxation, but sanitary science is the same for all men. In this respect England is far in advance of us, both as to the knowledge and as to the practical application of the laws of public health. In Ireland, the habits of the poor as to uncleanliness and overcrowding call for great reform, especially in our towns, where poverty, neglect, and overcrowding so often make them foci of endemical disease. The condition of our country towns and villages is simply deplorable, disgraceful to the local authorities, and, in too many instances, to the proprietary, frequently heedless as to the social and physical condition of those who live under them. Even the state of the metropolis, possessing a Public Health Committee, is shocking, as has been ably shown by Dr. Grimshaw in a recent communication. Let me read some extracts of a letter from a gentleman of great ability and truthfulness, who holds an important public appointment in the South of Ireland. He had been requested by the Town Commissioners of a certain place in that part of the country to inspect the state of the town, and report on the works necessary for sewage improvement.

It was about the year 1865, when there was some apprehension of an epidemic of cholera:—

"I went," says this gentleman, "through every lane and street, and examined all the tenements of every class in the latter end of January or beginning of February. There were no main sewers in any but the principal streets, and none of these had them for their whole length. The lanes and alleys leading off from these streets were mostly very narrow, and had no outfalls for sewerage discharge except surface channels, and very few of the houses had any back entrance; a good many had neither yards nor back entrances. But all had dung-pits. If not behind, they were contrived in the widest parts of the lanes by being sunk and enclosed with walls, so as to hold from eight to twelve cubic yards of manure each. Where the tenement had not the 'easement' of a dung-pit or yard, or right to part of the common way, the manure was stored *in* the dwelling-house. Most of the houses were thatched cabins, but several rows of two-storied houses were built, and a good many one-storied slated houses of small size were to be found containing four apartments. I discovered in one of these rows, which had very small back yards (not half the size of the house in any case), that the whole of the ground-floor and part of the house, except the staircase and passage leading to it, were filled with manure (the scrapings of the roads and streets) tightly packed to the height of eight feet; and in the rooms above there were two families living—one in each room. The manure had of course heated, and was steaming up through the chinks of a badly laid floor, the under side of which was dripping wet from the fermentation below. In several of the rows having back yards the surface water was allowed to run through the whole length of the lane from yard to yard, and the occupier of the lowest tenement was looked upon as having the most valuable holding of the whole lot, and something like the Chinese care of liquid manure was shown by extra mould or refuse being provided to absorb or soak it up. The parts of the town to which this description may apply covered about twenty-five acres, and almost every part of that surface was teeming with effluvia from such decayed substances of every sort as are admitted to be of the most noxious kind, without any provision whatever for carrying off the putrid water which is always to be seen in so wet a climate as this. The population is about 6000, of which two-thirds live in cabins furnished with the inevitable dung-pit. These cabins contain 700 families at the least. The dung-pit averages ten cubic yards in capacity, so that on twenty-five acres we have at least 7000 cubic yards of fetid matter, with 4000 people breathing the exhalation of such an accumulation as could not, I think, be found elsewhere even in Ireland. But nevertheless the town of Killarney has always been *a remarkably healthy place*. There is a Fever Hospital which has not been full since the famine dysentery in 1847-48, and which is very frequently empty. There is no dislike on the part of the poor to go into this Hospital, because it is not the workhouse, so that the few fever cases that do occur are quickly removed out of the crowded houses

It was asked—'How can such a state of things be? or, how can it be accounted for that such good public health can exist amidst all this rottenness giving rise to the miasmata so well-known as certain producers of fever and cholera?' I suggested that there were two great advantages in favour of health—namely, an ample supply of the very best water, and smoky houses. The subsoil of the town is gravel and sand to a great depth, and in this there are many strong springs, the purest water being met with at six or eight feet under the surface. The fuel used is all turf, and the blackened walls of the inside of the houses showed that the inhabitants lived in an atmosphere of peat smoke. I cannot help thinking that such smoke, possessing as we know preserving or antiseptic properties, must act as a deodoriser and preventive against infection or malaria. I asked one of the occupiers who lived over his dung-heap in an upper floor how he could expect to escape death by fever or cholera to himself or some of his family (a wife and five children), and his reply was, 'Sure we might as well be dead as never to have a bit of dung for the garden.' Some legislator has said that 'Ireland is an anomaly'; maybe the sanitary statistics of this town are another proof of this."

The inhabitants of this place escaped the epidemic so common in other towns of the South of Ireland, perhaps because, in addition to the pure water and turf smoke, an intimacy with malaria for many generations had at last made them insuseeptible to it.

The influences of impure air and water, imperfect drainage, and overcrowding have been held by sanitarians to account for the origination of epidemical or endemical disease. The subsidence of any such disease after the adoption of sanitary reform is appealed to in evidence that it sprung from preventible causes. But the argument is defective. It is like that of the therapeutist as regards essential diseases, which run their appointed course, and then subside independently of any specific treatment. Like isolated cases of fever, epidemics have their period of invasion, maturity, and decadence; and the conclusion is obvious how many great epidemics over the world have died out before sanitary reform was ever thought of.

There is in many minds a tendency to attribute great phenomena to too limited a source.

"The supposition of a single cause," says a learned writer, "is quite unsupported by nature. Every animal, every plant, every rock requires for its production the co-operation of many causes, and probably of many that we have not yet discovered. All nature depends ultimately on a single cause, but it has pleased that Almighty Cause that the effects which concern us immediately should arise from the co-operation of several of His creatures."

But the question before us is—Are such influences as I have mentioned the sole or the chief causes of fever in this country? It is difficult to believe that they are, because in Ireland, not only in the isolated dwellings of the poor, which are scattered over the face of the country, but in the towns also, all those causes which result from the imperfect drainage of dwellings, from the accumulation of decomposing organic matters in their vicinity, and from imperfect ventilation, are, I regret to say, but too constant and too general; and yet the production of fever, whether sporadically or epidemically, is inconstant and irregular in the highest degree. Why should these causes produce fever at one time and not at another? Why should districts remain for years free, or comparatively free from fever, while the supposed exciting causes continue in full force? Or, again, why, if the cause be constant, should the epidemic character of the fever vary? We may say, excluding the consideration of isolated cases, that each epidemic has a special or predominant character.

In the present state of our knowledge, are we to hold that preventible influences are the originators of disease? No doubt civilisation demands that all things injurious to health, or noxious to the senses, should not be permitted to exist. But the question remains whether, leaving the origin of disease undetermined, sanitary reform does not act as much by the improvement of the health of the population as by the lessening or extinction of the exciting causes of zymotic affections. The community being better prepared to resist the advent of disease, its spreading will be influenced and its severity lessened when it does come.

This, I apprehend, is the safe and practical way of looking at sanitary reform. It is fortunate that theoretical questions in no way touch the working out of such reform. Questions as to whether the spread of cholera is influenced by the dryness or the moisture of the air; as to the spontaneous generation of germs; or as to whether, when the sewerage of a town is spread out upon the fields, there may be a struggle for existence among various organisms, so that the cholera molecules die out—such questions only divert the attention from more important matters. The sanitary reformer is not to wait for the advent of epidemical disease. It is rather when a country is free from such that he can best work in removing or mitigating all those causes which experience shows to act against the health of man.

No one, who has not had a lifelong experience of epidemics, can estimate the difficulties which exist as to their origin, as to the absence of essential fever in places where, theoretically, it ought to prevail. The appearance of epidemics at irregular periods, while their supposed exciting causes remain constant; their disappearance, though the causes continue in full operation; their outbreaks in all latitudes, climates, and seasons; their different modes of spreading; the want of constancy in their symptoms and history (for every great epidemic has its own character); their varieties as to the extent, nature, and effect of the secondary affections which arise in their course; the varieties in their mode of subsidence and behaviour under treatment; their degree of mortality and contagiousness—all these things constitute the difficulties which surround us in our investigations as to zymotic disease. They bear on the supposed specific or constant origin of disease, on the error of drawing hard-and-fast lines between essential affections, and are with difficulty reconcilable with the germ theory.

But still, though differing in history, symptoms, nature, and mortality, these essential affections have their resemblances. They are all under the influence of the law of periodicity. We do not know of any treatment by which they can be cured. No man ever *cured* a fever, be it the yellow fever, plague, cholera, small-pox, or scarlatina. In these diseases it is simply a question of time, and if life can be prolonged by proper support, and by meeting the secondary accidents of the disease, the patient will recover spontaneously—as it were on the striking of a clock.

Again, these diseases are all, to a greater or less extent, contagious—a characteristic of which the best evidence is found by the application of the "doctrine of chances." In the progress of an epidemic in Ireland (and doubtless, also, in other countries), in a family of twelve persons, the disease has been known to attack eleven out of the twelve. In some cases the passing of the fever through so large a proportion as eleven individuals out of twelve has taken a very considerable period of time, as you may readily understand. It has taken about three months to go through them all. Now, my father proposed these two problems to the then Bishop of Cloyne (Dr. Brinkley) for solution:—

1st. "An epidemic prevails so severely that one person out of seven sickens. A family of twelve is selected in a particular district, before the epidemic has visited it. What is the chance that eleven out of that family shall take the disease, supposing the sickness of one of the family does not promote the sickening of another—that is, supposing the disease not to be contagious, and supposing the family to be not unusually liable to the disease?"

The answer furnished by Dr. Brinkley is, that the probability against such an event is 189,600,000 to 1. This is a very singular and extraordinary result.

2nd. "The same general conditions being assumed, and also that the number of inhabitants of a district is 7000, what is the chance that, in a family of twelve within the district eleven will sicken?"

Answer: "The chance then is 300,000 to 1 that no family of twelve persons, in a population of 7000, will have eleven persons sick."

These numbers furnish proofs so convincing of the truth of the doctrine of contagion, that it is hardly necessary to go further. The facts on which they were based are ascertained facts; they have been common facts in epidemic fever; but, recollecting that they were common facts, the chances against their happening, if the disease were not contagious, would be 189,600,000 to 1 in the one case, and 300,000 to 1 in the other.

But we know also that any depraved state of the public health in a community renders it more liable to outbreaks of some of these forms of disease; destroys the power of resistance possessed by the human body, which in the depressed state induced through preventible causes falls a ready prey to the pestilence.

The great end of sanitary science is to preserve intact the health of the body. In dealing with large masses of men—most of them ignorant, many of them powerless—it will not be sufficient, as Miss Nightingale well insists on, to trust to legislative enactments to do the whole work. Education must lend its aid; and until this has acted not only on the ignorant masses,

of men in this country, but on the millions of India, the work of sanitary reform will be imperfectly done, though enforced by an enlightened despotism. Her remarks were made as regards India. But education is required at home, not only among the artisan and peasant class, but in those who constitute boards of guardians and other local authorities, to say nothing of the landed proprietors themselves.

It has redounded much to the credit of this University, so long remarkable for its faculty of reading the signs of the times, and so forward in all measures of educational improvement, that a qualification in State Medicine in connexion with Trinity College has been instituted. To obtain it the candidate must be a Doctor of Medicine, and pass a comprehensive examination. Though possessing a great Medical school, Trinity College has recognised the distinction between Preventive and Curative Medicine. Upon the Court of Examiners for that qualification are the Professors of Law, Chemistry, Engineering, Natural Philosophy, Hygiene, and Medical Jurisprudence, and the "Testamur" has been already obtained by four gentlemen, whose University career has shown that those most distinguished in Medicine have been also eminent in their course of Arts. Oxford in the person of its Regius Professor of Medicine is identified with the cause of State Medicine, and the Medical Syndicate of Cambridge have already agreed upon the subject.

It is plain that the old teaching Universities are in the best position for instruction in State Medicine, and in this place the existence of a School of Engineering, many of the pupils of which occupy important positions in various parts of the world, gives it a peculiar advantage.

It may be asked what is meant by "Sanitary Engineering." Dr. Rumsey, in a letter with which he has favoured me, observes that the real effects of structural works on health have not been fairly ascertained. "Civil engineers," he remarks, "have only lately begun to study the relations of the various matters of their profession to human life. The influence of different modes of construction of dwellings, roofs, drains; the size of rooms and public buildings; the effect of local drainage; the study of river and air currents, and their effect on the health of the people, are not mere problems of statics and dynamics, nor are they simply questions of elegance of design, convenience of use, or durability of structure."

Let me illustrate the matter by examples. The sanitary engineer will not sink a well in places where the water may be polluted, or so construct it that it may be fouled by surface water, or by decomposition of matters thrown into it. In the year 1868 the drownings in the Bombay Presidency numbered 1608. Of these, whether from accident or from suicide, 1101 were in wells. He will have to deal with water-supply as to its source, constancy, purity, fall, and the nature of the soil through which it runs. The whole subject of drainage and of sewerage must be familiar to him—the disposal of sewage, and its application towards fertilising the soil, to say nothing as to the proper construction, with reference to ventilation and warmth, of Hospitals, gaols, barracks, passenger ships, and schools.

The remainder of Professor Stokes's discourse consists chiefly of an eloquent appeal for India, claiming for the millions of inhabitants a full participation in the benefits of physical and moral science.

PUBLIC HEALTH BILL.—DEPUTATIONS TO MR. STANSFELD.

On Monday a deputation from the Social Science, British Medical, and Poor-law Medical Officers' Associations visited Mr. Stansfeld at Gwydyr House, to suggest various amendments in the Public Health Bill. The chief speaker was Dr. A. P. Stewart, who presented a memorial complaining of the injurious restriction of the scope of the Royal Sanitary Commission, and urging several amendments in the Public Health Bill, especially that there shall be a high-class sanitary authority in each district, subject to the central authority; that there shall be one or more Chief Officers of Health for each district, giving their whole time to their duties, and that Medical Officers appointed by the local authorities shall be the deputies to the Chief Officers, and be responsible directly to them; that the sickness returns be passed through the hands of the Chief Medical Officer; and that a moiety of the expense of Medical and scientific officers under this Bill be borne by the national exchequer.

Dr. Rumsey said that the fundamental defect was the absence of a national council of public health, composed, as in some Continental States, of specially qualified persons. Then it was held that the local machinery proposed by the Bill was complex and inadequate, and he urged there was a want of an extensive unit of area to secure good government and to prevent a duplication of authority.

Mr. Stansfeld said there was more in the Bill than appeared on the face of it, for he had taken powers that districts should be united, and he was not in favour of multiplying petty authorities, as the deputation seemed to think. He differed from the deputation with regard to there being a central authority in each district, for he thought that by an intervening power such as this there would be entailed much cost. He allowed that he did not look to make the law perfect by this Bill, and he thought that much which the deputation sought would be covered by the powers which the central authority would gain by the passing of this measure, for by means of those powers measures which had not been enforced could be pressed, by judicious inspectors of the central authority, to a satisfactory conclusion.

On Thursday, the 11th, Mr. Stansfeld received a deputation of the Association of Medical Officers of Health, including Dr. Druitt (late Medical Officer of Health to St. George's, Hanover-square), Drs. Letheby, Stevenson, Vinen, Lord, Aldis, Tripe, and Woodforde. Mr. Stansfeld entered with these gentlemen into a long, minute, and laborious analysis of the working clauses of his Public Health Bill which relate to the definition and suppression of nuisances injurious to public health. This part of the subject was well elucidated by Dr. Letheby. It would be tedious to report the discussion on dust, disinfection, removal of the sick, closing houses unfit for habitation, and the like; but Dr. Letheby strongly urged that all laws relating to adulteration shall include not only food, or "food and drink," but tea, coffee, cocoa, sweetmeats, confections, and condiments; so that poisonous tea or sugar-plums, salt adulterated with plaster of Paris, and the like, might be prohibited, whereas at present magistrates seem unable to decide that these substances are articles of food or drink. A better definition of adulteration was suggested, and a division into two kinds—one consisting in the admixture of mineral and noxious substances, the other consisting in fraudulent additions for the purpose of increasing bulk. Power was also claimed for sanitary authorities to close unwholesome wells and pumps, public or private, and it was the opinion of the gentlemen present that all or most of these clauses might beneficially be applied to the metropolis. Dr. Stevenson dwelt on the precaution to be used in the appointment of analysts, and the expediency of giving a full share of work to chemists in the large towns. Dr. Tripe mentioned the necessity of disinfecting corpses before they are taken into churches or chapels, and mentioned a case where small-pox was caught by the mourners at the funeral of a person who died of that disease. Mr. Stansfeld expressed his thanks to the deputation, and said that, with regard to applying the clauses of his Bill to the metropolis, he thought it the best policy to let the metropolitan members consider the Bill, and then accept it if they thought it likely to be serviceable to their constituents; and this Mr. W. H. Smith and others seemed inclined to do. The same with regard to the sanitary authority for the Port of London; he wished to hear the sentiments of the various bodies who were competent and prepared to undertake that office. The members of the deputation were much impressed with the thoroughness and grasp of Mr. Stansfeld's knowledge of the above somewhat intricate details.

Extraordinary Longevity.—The obituary of the *Times* of Wednesday, the 3rd instant, contained some remarkable illustrations of prolonged existence in eleven persons—viz., nine gentlemen and two ladies—whose united ages amounted to 946 years, giving an average of exactly 86 years to each. The oldest lady was 93, the other 82. Of the opposite sex, the oldest had reached the great age of 95; the youngest was 80 years of age.

The dengue fever has broken out at Poona and Sholapore. It is supposed that both of those places have been infected by the troops which arrived by H.M.'s troopship *Crocodile*.

REVIEWS.

Dr. Pereira's Elements of Materia Medica and Therapeutics. Abridged and adapted for the use of Medical and Pharmaceutical Practitioners and Students. Edited by Robert Bentley, M.R.C.S., Professor of Materia Medica and Botany to the Pharmaceutical Society of Great Britain, etc.; and Theophilus Redwood, Ph.D., etc., Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain. London: Longmans. Pp. 1093.

This book is a mistake—nay, more, it is an injustice. Whilst fully admitting the necessity for such a work, or one founded on the same principle as the old dispensatories, we may well demand—by what right is the name of Dr. Pereira coupled with it? Is the work in any way such a volume as he, had he been now alive and in full possession of his faculties, would have written? To anyone familiar with the writings of Pereira there can be but one answer.

There is beyond doubt a want for a book which should embody the main facts of pharmaco-dynamics with a Materia Medica. Such a work must be wanted by pharmaceutical students; and now that all pharmaceutical chemists have to pass an examination before the examiners appointed by the Society, they might well expect that somebody would take the trouble to provide a book suited to their wants. Now, there can be no men better fitted for this duty than Professor Bentley and Dr. Redwood, and their part of the work is thoroughly well done; but that said, all is said. In their preface these gentlemen say—"The work now submitted to the Profession is based upon that of which Dr. Farre was the principal editor." Deeply do we regret, for the sake of Professor Bentley and Dr. Redwood, that it should be so, for a more unsatisfactory book was never published. On the other hand, the old edition of Pereira, completed by Rees and Taylor, remains to this day a wonderful source of information.

Now, we admit that all this seems very hard on Professor Bentley and Dr. Redwood—and it would be impossible to have a higher esteem for these two gentlemen than we have. Professor Bentley is a first-rate botanist, as well as the most genial man you can meet with—a man of whom willingly no one would say an evil word; moreover, his part of the work is thoroughly well done. We have just by chance hit upon an article which thoroughly well illustrates this. Ergot of rye is described and figured better than in any book we have seen dealing with Materia Medica; but we turn to the portion of the work relating to its physiological and therapeutical effects, and then—we cannot say we are grievously disappointed, for we expected nothing beyond—not a word of anything, save what refers to the uterus—not a word as to the effects of ergot on unstriped muscle elsewhere—not even a reference to its effects in causing gangrene when bad rye is used for bread.

We turn again to the Cinchonaceæ, the portion which last received the finishing touch from the pen of the lamented author whose name is inscribed on the work. There, too, Professor Bentley's work is well done; the later researches, especially those embodied in Howard's splendid work, are duly utilised and embodied. But we look to Ipecacuan, and we find two lines or so devoted to the use of this remedy in dysentery, and not a word as to the dose to be given in it. So, too, some of the most important properties of quinine are overlooked.

We turn to Digitalis, an article which seems better brought down than many others: the same defects prevail. Professor Bentley's remarks as to the gathering of the plant and its botanical characters are good; but, as a model of wrong-headedness, we can cite the following:—"In simple hypertrophy or hypertrophy with dilatation (of the heart) we have to reduce the preternatural thickness of the heart's parietes, and this we do by removing, when it can be done, any obstruction to the circulation, by using low diet, by repeated blood-letting, and by the employment of digitalis." We had thought of giving other instances to justify the very harsh expressions we have used with regard to this book, but it would be impossible to surpass such a sentence, which we allow to stand in its naked deformity.

A word with regard to Dr. Redwood's share in the book. No better or fitter man could be found to comment on the pharmacy of the Pharmacopeia, for it is well known to many that he was the principal author of the pharmaceutical portion of its last edition. In every way he is well qualified for his task, and to his work we can find no objection worth mentioning here; but here, too, good work is damned by being bound up with bad, and we can only commiserate with both editors on having been so ill-advised as to accept the edition of Pereira which they took as their basis. For these two gentleman we are sincerely sorry, and to them we can only say, by way of compensation—let them bring out a work on their own account, without any foreign basis, and it will surely meet with a very different reception from that accorded to what, speaking as Physicians and Surgeons, we can only call a degenerate edition of a great work.

NEW BOOKS, WITH SHORT CRITIQUES.

Zymotic Diseases, their Correlation and Causation. By A. Wolff, F.R.C.S. London: J. and A. Churchill. Pp. 177.

*** The author dissents from the notions generally entertained, that each zymotic disease has a special poison of its own distinct from all others. He seeks to establish that the various forms of zymotic disease are strictly correlated; that they are essentially processes of textural inflammation tending to textural disintegration; that they vary in their phenomena in accordance with the special texture primarily affected; that in their causation correlation is as evident as in their symptoms; that their cause is invariably the presence of decaying organic matter, and that the mode in which this decaying matter acts is by overcoming the resistance of the natural actions of repair and growth, and inducing in their stead a process of inflammatory disintegration. The volume is highly suggestive.

On Mental Capacity in relation to Insanity, Crime, and Modern Society. By Christopher Smith, M.D., late of Paris. London: Baillière, Tindal, and Cox. Pp. 71.

*** We candidly confess that we do not quite understand this book. Nevertheless, confiding in its wisdom, we can admire the style in which it is composed. It is dedicated to Dr. Forbes Winslow, and we cite the introductory lines of the dedication. They are very fine:—"Prithee, do not bestow one mental vibration of your powerful sensorium that would imply censure on me for not soliciting your indulgence in submitting to your dedication remarks upon a subject which you have displayed such transcendant talent and consummate skill in elucidating. Your well-merited reputation as an alienist and prince of psychological science must pay the penalty and bear the burden of world-wide fame which you have long since acquired, and consequently be the involuntary objective in matters immediately connected with insanity in its various forms." Such writing, and the invention of a psychometer which the author describes, are sure to make the reputation of the book.

The London Medical Guide: containing a Complete Directory of the Names, Addresses, Qualifications, Appointments, and Published Works of all Qualified Medical Practitioners residing in London and the Suburbs in 1872. London: Kelly and Co. Pp. 203.

*** This is a very handy and convenient book for those who desire to limit their world to London, and to whom London is the world, but we doubt if it can attain, even among these, to the popularity of the old "Medical Directory." The amalgamation of the directories of the three kingdoms was deliberately adopted, and we can hardly look upon a separation of the London Directory from the others as an improvement. There is, however, one feature in which the present little volume excels the other: it includes not only all London Practitioners, but also all the suburban ones, who indeed may still be looked on as metropolitan. It has always been a bore to turn to the Provincial Directory for a name which should have been included in the Metropolitan one, and we would strongly urge the editor of the old "Medical Directory" to include within his metropolitan area all gentlemen practising within the twelve-mile radius. This is a new venture on the part of Messrs. Kelly, and their workmen seem to be badly acquainted with Medical terms, etc., for there are a good many misprints in the volume.

Observations on the Climate of Uckfield. By C. Leeson Prince, M.R.C.S.E., etc. London: J. and A. Churchill. Pp. 239.

*** Mr. Prince really deserves much greater credit than we fear will be bestowed upon him. His work has lasted for many years—from 1843 to 1870. His observation has been keen, and his notes careful. Mr. Prince has, in point of fact, followed in the steps of White of Selborne, looking out year by year for the arrival or appearance of various animals and plants. We fancy there could be few pleasanter recreations on a fine spring afternoon than to take a drive with Mr. Prince on his round of visits.

The Englishwoman's Review of Social and Industrial Questions. London: Trübner.

*** In the current number of this review is one of those twaddly articles one is constantly encountering on the subject of "Medicine as a Profession for Women," having the signature "A. B. Le Geyt" appended. It goes maundering over the same subjects which have so often been discussed, and again we are told that there is no argument against women-Doctors which will hold water. It will on the whole be admitted, we think, by reasonable beings that it is not advisable for women to act as Medical attendants on males—male modesty forbids, if female does not. No one objects to the education of women for the purpose of attending on their own sex and on infants under a certain age. Such an education need not be a mixed education. We do not want mental and moral hermaphroditism, although the personages who now represent the female Medical movement seem to be content with nothing less. This, again, male modesty forbids. But if women will have a place of their own, and an education of their own, by all means let them have it.

On the Cause of Death in Fever. By R. T. Hunt, M.R.C.S.E., Consulting Surgeon to the Royal Eye Hospital, etc., Manchester. (Pamphlet.) Manchester: Cornish.

*** The substance of this pamphlet was read as a paper before the Manchester Medical Society in 1842. The additional experience of twenty-nine years, says the author, only confirms his opinions. The fevers he refers to are those which leave behind them no trace of lesion. He holds that the torpid state of the bowels in fever is frequently beneficial to the patient, and ought on no account to be disturbed by aperient medicines, otherwise dangerous consequences may follow. No doubt, sound in many instances, especially true of typhoid fever, but little is said of the cause of death—the pamphlet deals rather with treatment.

FOREIGN AND COLONIAL CORRESPONDENCE.

WEST INDIES.

Port of Spain, Trinidad, March 10.

The Small-pox Epidemic.

There has been a marked decrease in the epidemic in Port of Spain since I last wrote. The close, muggy, hot, rainy weather lasted until far into January. The air was almost perfectly calm, and the usual brisk and refreshing breezes of the dry season were entirely absent. As long as this was the case, the severity of the epidemic was unabated. None of the sanitary measures (such as they were) which were tried had the slightest effect in mitigating the plague. But when the dry weather came, and with it the steady trade winds, an immediate change took place, not only as to the number of cases, but as to the character of the disease. The petechial and hæmorrhagic cases diminished, and even some of those which commenced as petechial did not become progressively worse, as had previously always been the case, but improved and ultimately recovered. The following shows the number of cases and deaths reported at the Health-office from the beginning of January:—

	Cases.	Deaths.
In the month of January.. ..	1742	416
February 1 to March 3	113	41
Week ending February 10 ..	240	74
„ „ 17 ..	155	55
„ „ 24 ..	97	46
„ March 2	86	26
„ „ 9	42	8
Totals..	2475	666

The worst week of the epidemic was that ending February 3, in which there were between 400 and 500 new cases reported. The cases reported are admitted at the Health-office to fall far short of the actual number, as the most strenuous efforts were made to conceal cases.

The worst is over now in Port of Spain, but the epidemic is spreading all over the country districts. In the only other town in the island, San Fernando, there has been a large number of cases. In one short street, at one time, there were said to be sixty cases. But the disease is nowhere so severe as in Port of Spain, although hæmorrhagic cases have occurred everywhere.

A very useful measure has been adopted by the Board of Health, at the suggestion of Dr. Crane, the Medical Officer of Health, and that is to order that all vessels arriving in the harbour from any foreign port shall be visited by the Health Officer of Shipping, and neither passengers nor crew shall be allowed to land until certified by him to have had small-pox or to have been vaccinated. This measure has been violently attacked by the organs of the mercantile classes, who, with their usual shortsightedness and greed for immediate gain, cannot be made to see that the epidemic will never come to an end as long as hundreds of people are allowed to land unprotected by vaccination or small-pox. The slight delay and obstruction outweigh, in the minds of the trading community, every consideration about the public health.

GENERAL CORRESPONDENCE.

THE ROYAL ORTHOPÆDIC HOSPITAL..

Letter from Mr. B. E. Brodhurst.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is well known to all who have watched the history of the Royal Orthopædic Hospital that for many years there has been going on a struggle between the general body of the Committee and the two Surgeons, who have been supported by Lord Abinger and a small minority of the Committee.

Prior to most of the annual and special courts an active canvass for governors has taken place—a practice which it is well known prevails in almost every institution in which there are pending existing questions.

At the special court in March last some of my friends determined to propose that there should be created an office of third Surgeon, with the view that I should hold the appointment. For this proposition (which would not in any way affect the positions of the two Senior Surgeons) they sought the support among their friends of additional as well as of old subscribers. Not unnaturally they sent the names so obtained to me, with a request that I would see them properly placed on the register. This I did, and it is all that I did. And that I acted in good faith is sufficiently proved by the fact that I made no concealment about it, but gave to the Secretary, together with the names, my own cheque for the amount due from the subscribers—some of whom sent me the money previously, and others subsequently, to my paying it.

This is, I believe, all I need say in vindication of my conduct as a member of the Profession. I cannot ask you to judge between Lord Abinger and myself. He has on more than one occasion openly expressed the ill-will he has long borne towards me; nor is it necessary for me to enter into the question between the Committee and the two Surgeons. That question has now been twice decided against the Surgeons; and on this last occasion in spite of the most strenuous efforts of Lord Abinger and his friends.

It is to be hoped that the charity may now at length be permitted to continue to perform its beneficial functions undisturbed by further Professional quarrels and personal disputes.

I am, &c., B. E. Brodhurst.

20, Grosvenor-street, April 9.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 2.

Mr. Hilton, F.R.C.S., President, in the Chair.

Mr. Arnott read for himself and Dr. Duffin a report on Dr. Dowse's specimen of Mollities Ossium. All the cancellous tissue was gone, and in its place was a soft gelatinous tissue, consisting of small spherical and oval cells like granulation tissue. This contained a little oil, but very little. No opinion was expressed as to the nature of the growth.

Mr. T. Smith exhibited a specimen of Triple Aneurism of the Aorta in the sinuses of Valsalva, from a patient whose case has already been reported. One of these was three-quarters of an inch in depth. The aortic orifice was not interfered with, so there was no sign of regurgitation during life. The clubbed fingers were rendered natural partly by rest, but entirely after the operation on the subclavian, showing that they were probably connected with pressure by the aneurism on the vein. In other cases clubbed fingers seemed to be due to other

causes, as obstruction to the blood-stream through the lung. Thus they are common in empyema and chronic phthisis. They may club in pneumonia, and get well as the patient gets well; yet they do not occur in emphysema, chronic bronchitis, etc. General exhaustion had nothing to do with their appearance; he had never seen them in spinal abscess and the like.

Mr. Squire said they did sometimes occur with emphysema. He had a case of this disease now, of some standing, where the fingers were beginning to club.

Dr. Crisp asked if there was any atheroma of the vessel.

Dr. Moxon said the origin of clubbing of the fingers was obscure. He thought it might be allied to that condition of the nails mentioned by Dr. Wilks as brought about by illness, and afterwards gradually passing off. The condition did occur in emphysema, but if so, then the emphysema was founded on old phthisis.

The President asked what was the condition in the fingers themselves.

Dr. Moxon replied that he had never made sections. After death the fingers did not seem to be clubbed, only the nail altered, as the points of the fingers shrink.

Dr. Pye-Smith suggested that this showed the condition was mainly one of œdema. Two things were confounded, clubbing and incurvature of the nails. He had examined the toes as well as the fingers, and had found both clubbed.

Dr. Powell said people complained of pain in such fingers. He had seen the condition come on acutely in patients the subjects of chronic phthisis. He found it in the toes also.

Mr. Haward said the nose might be clubbed too.

Dr. Crisp suggested that in all cases it was associated with slow circulation in the parts.

Mr. T. Smith, in reply, said the aorta was enlarged and atheromatous. He considered the clubbing as due to no single cause. It was common in congenital heart disease, very rare in the acquired form.

Dr. King exhibited a Malformed Heart from a boy aged 4. He was not cyanotic. Two years ago he began to complain of pain in the head, and a discharge came from his ear. This continued for a while, but afterwards ceased. Next he became paralysed on one side, the limbs on that side trembling much. Fits came on, and he died. There was a large abscess in the cerebrum, apparently of long standing, and the lateral ventricles contained pus. This was on the right side. The mastoid bone was necrosed at one point. The lungs were small and healthy. In the heart the interventricular septum was deficient. The aorta was small and atheromatous, the pulmonary orifice exceedingly narrow, and the artery dilated. There was no ductus arteriosus.

The President referred to the heart of a soldier he had seen. The man had been quite equal to any exertion, yet he had a large orifice in the ventricular septum. He had no cyanosis. He thought the muscular fibres of the ventricle determined the direction of the blood-stream.

Mr. Sydney Jones exhibited a very large Tumour removed from the Parotid Region of a lady aged 58. Mr. Travers had removed such an one from her many years ago. Some months after that she received an injury in the parotid region; the present tumour began to form, and it gradually increased for twenty-three years. Fourteen months ago the skin over it ulcerated, and some hæmorrhage occurred from time to time. The tumour was pedunculated and easily removed. He clamped the peduncle, so no blood was lost. In texture it seemed cartilaginous in one part, in others cystic.

The Secretary suggested that in the drawing the structure seemed like that of epithelioma.

Dr. Crisp exhibited a specimen of Abscess of the Wall of the Heart occurring in a child aged 4. She had first an ulcer in her heel, apparently caused by a boot; then there was pain in the middle of the thigh, redness, etc. The child died, and abscesses were found in various parts of the body, especially in the joints. There were three in the heart containing thick creamy pus. The thigh was not examined.

Mr. T. Smith said it was only too common to have such symptoms from disease of the thigh-bone, though rare from such an injury to the heel.

Dr. Moxon said without doubt there had been acute suppurative periostitis of the thigh-bone. Such, he thought, had always a tendency to form abscesses in the heart and kidney.

Dr. Payne had recently seen three cases of pyæmia without external wound, but with periostitis and necrosis. There was no heart affection in them.

Dr. Crisp narrated a case of Intestinal Obstruction in a man aged 62. He exhibited pain, tympanitis, constipation, etc. He had long been subject to colic with flatus, which was best relieved by elevating his legs. He died in forty-eight hours. The sigmoid flexure of the colon was twisted, and contained dark grumous fluid. He suggested that puncture might have been of some service.

Dr. Cholmeley said puncture had not only been suggested, but had often been had recourse to in such a condition—frequently, too, with good results.

Mr. Squire remembered a similar case in the female. The sigmoid flexure had adhered to the uterus; and about the age of 46, when the uterus began to contract, it drew down the gut, and obstruction followed.

Mr. Croft exhibited two Colloid Tumours of the Breast. One had been observed for three years; latterly blood began to ooze from the nipple. He removed the mass. The tumour was variously constituted—part being colloidal, part containing blood; part was mere hyperplasia of gland tissue, part resembled carcinoma. The other was of two years' growth, and was the size of an orange. Here, too, blood oozed from the nipple. There was no enlargement of the axillary gland. It was removed, and found partly colloidal, partly scirrhous. Both were probably degenerations of scirrhus. There were two varieties of colloid growth—one original and one a degenerated tissue. He did not say what was the origin of the colloid matter.

Dr. Moxon showed a specimen of Syphiloma of the Liver. There was a prominence on the surface of the liver, which fluctuated during life, and was supposed to be an abscess. Really, however, it turned out, after death, to be a syphilitic growth of large size, softened and broken down like an abscess.

Mr. Squire exhibited a specimen of Cancer returning after removal by caustic. (Referred to the Morbid Growth Committee.)

The Society then adjourned.

OBITUARY.

THOMAS BARNES, M.D. Edin., M.R.C.S., F.R.S.E., etc., Died on Sunday, the 31st ultimo, at Bunker's-hill, Carlisle, in the 79th year of his age. Having chosen Medicine as his Profession, he became an apprentice of the late Dr. Joshua Rigg, of Wigton, at that time the only Medical Practitioner in the district. There were then neither druggists, veterinary Surgeon, nor dentist in Wigton, and the Doctor's apprentice was expected to take the place of all three. After his apprenticeship he went to Edinburgh in 1811, and entered as a student of Medicine at the University, where his zeal and diligence soon attracted the notice of the Professors. He passed two winter sessions there and one session in London, having entered at the London Hospital. In 1815 he became a Member of the Royal College of Surgeons of London, and then studied for some months on the Continent, visiting the chief Hospitals both in France and Germany, and attending several classes of the Paris Faculty of Medicine. It may here be mentioned that he was present at the battle of Waterloo, and he used to relate many curious incidents in his adventures of that period. On returning to this country he proceeded to Edinburgh, and took the degree of Doctor of Medicine at the University in August, 1817. He was anxious at first to settle in London or some other large town, but whilst looking about him a vacancy for a Physician occurred in Carlisle; he was at once appointed Physician to the Dispensary. He was very active and diligent in the acquisition of Professional knowledge, accurate in diagnosis, and a thorough advocate of the old school of treatment. As a Consulting Physician, twenty-five years ago he had few rivals in the northern counties. Ever anxious for the advancement of Medical science, he was not backward in giving the results of his own observations, and contributed many valuable articles to the Medical and scientific journals. Of these a catalogue will be found below:—"Observations on Fever and Vaccination at Carlisle" (*Edin. Med. and Surg. Journal*, vol. xv., 1819); "Two Successful Operations for Strangulated Hernia performed on the sixth day" (*Edin. Med. and Surg. Journal*, vol. xv.); "Cases of Five Individuals in one family having Small-pox twice" (*Edin. Med. and Surg. Journal*, vol. xix., 1823); "Sketch of an Epidemic Varicella which prevailed at Carlisle in the Summer and Autumn of 1826, preceded by Observations on the relative state of Small-pox and Vaccination during the seven years previous" (*Edinburgh Med. and Surg. Journal*, No. 90); "Account of William Dempster, who swallowed a table-knife

nine inches long, with a notice of a similar case in a Prussian Knife-eater" (*London Med. and Phys. Journal*, vol. lii., 1824); "History of an Uncommon Case of Laborious Parturition" (*Edin. New Med. Journal*, vol. iii., 1827); "A Table of Diseases treated at the Carlisle Dispensary from February, 1826, to February, 1827" (*Edin. New Med. Journal*, vol. iii., 1827); "Case of Vicarious Menstruation with Singular Discharge from the Ear, with Remarks" (*Edin. New Med. Journal*, vol. ii., 1826); "Account of Mr. Robert Bowman, of Irthington, in Cumberland, who has completed his 115th year" (*Edin. Phil. Journal*, vol. iv.); "Biographical Notice of Mary Noble, of Penrith, Cumberland, who is (1823) in the 107th year of her age, with some Remarks on Longevity" (*Edin. Phil. Journal*, vol. x.); "Remarks Explanatory and Tabular Results of a Meteorological Journal kept at Carlisle for Twenty-four Years" (*Transactions of the Royal Society of Edinburgh*, vol. xi.); "On Abscess of the Lungs" (*Eighth Report of the British Association for the Advancement of Science*, vol. vii.); "Biographical Sketch of the late Dr. Robert Jackson, Inspector of Military Hospitals" (*Transactions of the Provincial Medical and Surgical Associations*, vol. iii.); "Observations on the Expediency of Establishing a General Infirmary at Carlisle," 1828 (second edition, 1831), "Lecture on the Structure and Physiology of Man and of the Lower Animals," "Topography of Cumberland," and "Topography of Dumfriesshire" (*Penny Cyclopædia*); "Reports of the Carlisle Dispensary," "Reports of the Carlisle Fever Hospital," "On the Average Amount of Rain in Carlisle and Neighbourhood" (*Transactions of the Royal Society of Edinburgh*, vol. xxvi.). His paper "On the Meteorology of Carlisle for Twenty-four Years" was read before the Royal Society of Edinburgh in 1827, and procured for him the title of F.R.S.E. He was elected in the same year as the late Professor Syme, and at the time of his death was one of the eldest Fellows. He was a member of the Royal Medical and Chirurgical and Wernerian Societies of London. He was one of the earliest members of the British Medical Association and of the British Association for the Advancement of Science, and was elected a life member of the latter body in 1864. On the formation of the Cumberland and Westmoreland Medical Association in 1868, he was elected unanimously as its first President, and in his inaugural address he gave "a forcible expositien of the waves of Medical thought and practice which had passed within the scope of his recollection." It has already been stated that he was appointed Physician to the Dispensary on his settling in Carlisle, and he continued Physician-in-Ordinary to that institution until 1838, when he was made Physician-Extraordinary to fill the vacancy caused by the death of Dr. Heysham, and after fifty years' tenure of office in his Professional capacity, he was in 1866 appointed a Vice-President. He was the founder of the Carlisle Fever Hospital, and had been its Senior Physician since its opening in 1820. For a period of thirty-four years he was its sole Physician. He took an active part in establishing the Cumberland Infirmary, was the first Physician appointed to it, and may be regarded as one of its chief founders. He was the founder and secretary of the Carlisle Humane Society. He was a warm friend to the Carlisle Mechanics' Institute, and delivered the first lecture in that institution. In 1849 he ceased to reside in Carlisle, gave up active Professional work, and retired to Bunker's Hill. Shortly before that he had been appointed a county magistrate, and he acted for many years, taking a prominent part in county business. His failing strength and advancing years at length compelled him to relinquish these duties, and for some time past he had not been able to undertake any public work. His last illness was only of a fortnight's duration, His end was peaceefnl, and he may be truly said to have died "full of years, full of honours."

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their Primary Examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 9th inst., and, when eligible, will be admitted to the pass examination:—

Baly, William, student of St. Bartholomew's Hospital.
Barlow, John, of Glasgow.
Benton, Samuel, of St. Bartholomew's Hospital.
Bott, Henry, of St. Bartholomew's Hospital.
Brown, George, of the Charing-cross Hospital.
Comins, Denis W. D., of St. Bartholomew's Hospital.
Crocker, Henry R., of University College.
Davies, Lewis, of Guy's Hospital.
Davies, John W., of Guy's Hospital.
Day, Edmund O., of Guy's Hospital.
Dhanjisha Navroji Parakh, of University College.
Eales, Henry, of University College.
Friend, Frederick W., of St. George's Hospital.
Griffiths, John, of Guy's Hospital.
Harper, Gerald S., of St. George's Hospital.
Helby, Alfred J. H., of St. Bartholomew's Hospital.
Henwood, John D., of the Charing-cross Hospital.
Hooper, Alfred, of Guy's Hospital.
Leeds, Henry, of the Charing-cross Hospital.
Manning, Charles J., of University College.
Mason, John W., of Guy's Hospital.
Morton, Andrew S., of University College.
Rossiter, George F., of St. Thomas's Hospital.
Roth, Bernard M. S., of University College.
Rudd, Leonard, of Guy's Hospital.
Swift, W. J. C., of University College.
Willans, William B., of King's College.

The following gentlemen passed on the 10th inst., viz.:—

Allden, John H., student of the London Hospital.
Bickford, William, of St. Thomas's Hospital.
Boase, William F. F., of the London Hospital.
Briggs, George J., of the Hull School.
Cree, William E., of the Middlesex Hospital.
Crowther, Arthur B., of Guy's Hospital.
Deaby, Timothy C., of the Leeds School.
Gonsalves, Manoel Martinho, of St. Mary's Hospital.
Hart, Philip N., of St. Bartholomew's Hospital.
Hopkins, John, of University College.
Jackson, William, of the Leeds School.
Jelley, Richard, of University College.
Maclean, Thomas E., of University College.
Newnham, Lewis J., of the Charing-cross Hospital.
Reynolds, Edward O., of Guy's Hospital.
Sellon, John W. G., of University College.
Smith, Winckworth T., of University College.
Squire, William, of St. Bartholomew's Hospital.
Tyrrell, Frederick, of St. Mary's Hospital.
Verdon, Henry W., of St. Thomas's Hospital.
Vines, Edward P., of King's College.
Wilding, Leonard J., of Guy's Hospital.
Woodforde, Alfred P., of St. Bartholomew's Hospital.

The following gentlemen passed on the 11th inst., viz.:—

Butler, George B., student of St. Bartholomew's Hospital.
Ellerton, John F. H., of the Leeds School.
Fowler, James, of King's College.
Hales, Robert T., of St. Bartholomew's Hospital.
Hobson, John M., of Guy's Hospital.
Hood, Frank E. C., of Guy's Hospital.
Johnston, Wingate K., of Guy's Hospital.
Leghtoller, H. Martin, of the Manchester School.
Lindsay, William V., of St. Mary's Hospital.
Lumby, John R. H., of the Birmingham School.
Miller, Robert B., of King's College.
Morris, Price, of the Glasgow School.
Newman, Charles, of the Bristol School.
Newsham, Francis, of the Manchester School.
Parkinson, John R., of the Manchester School.
Potts, Edward, of the Birmingham School.
Pring, Peter B., of the Glasgow School.
Quinton, Richard F., of King's College.
Roberts, Humphrey, of the Glasgow School.
Sandes, W. H. Fitton, of St. George's Hospital.
Scatliff, Arthur W., of St. George's Hospital.
Scatliff, J. M. Elborough, of St. George's Hospital.
Thomas, Robert T., of St. Bartholomew's Hospital.
Walker, Hyde E., of the London Hospital.
Williamson, Francis, of St. Thomas's Hospital.
Wood, John E., of St. Thomas's Hospital.

Thirty-one candidates out of the 107 examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for the nsnal period of three months.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, April 4:—

Brumwell, James Parker, Kendal, Westmoreland.
Donaldson, Henry, Cambridge-road, Hammersmith.
Evans, Thomas, Trinity-square, Borough.
Pitts, Robert Laccheus, Hingham, Norfolk.
Scott, John Walter, Torpoint, Cornwall.
Wright, Francis James, Preston, Lancashire.
Wright, John Frederick, Seymour-street, W.

The following gentleman also on the same day passed his primary Professional examinatien:—

Jennings, William Oscar, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BOREHAM, W. T., L.R.C.P., M.R.C.S., L.S.A.—Medical Officer to the Abbotsbury District of the Weymouth Union, and to the Long Bredy District of the Dorchester Union, *vice* T. Parker, M.D., resigned.

Brewer, Professor, M.R.C.V.S., of the Veterinary Department of the Privy Council Office, and late Professor of Veterinary Surgery at the Agricultural College, Cirencester—Chair of Physiology, Therapeutics, and Pharmacy, Royal Veterinary College.

Buntine, Robert, L.F.P.S. Glasgow.—Medical Officer for the Brough District of the East Ward Union, Westmoreland.

Cunningham, Wm. L., L.R.C.S.E.—House-Surgeon to the Paisley Infirmary, *vice* Wm. Lewis, M.B., C.M., L.R.C.S.E., etc.

Gray, Alexander Cothill, M.D.—Medical Officer to the Selby District, Yorkshire.

Strange, Wm., M.D.—Honorary Physician to the County Prison, Worcester, *vice* Dr. Williams, deceased.

Lewis, Thomas Hopkin.—Dispenser to the Stepney Union.

Vores, Wm. Mallam, B.A. Cantab., L.S.A.—Junior Resident Medical Officer to the Royal Free Hospital, Gray's-inn-road, W.C.

NAVAL AND MILITARY APPOINTMENTS.

Medical.—John Lyon, Assistant-Surgeon to the *Swallow*; W. C. Sandys, Assistant-Surgeon to the *Royal Adelaide*.

Borham, W. T., L.R.C.P., M.R.C.S., L.S.A.—Admiralty Surgeon to the Coastguard Stations of Langton, Herring, and Abbotsbury.

Christison, Alexander, M.D., Surgeon, to be Surgeon-Major in the Bengal Army.

BIRTHS.

Barclay.—On April 9, at 30, Stafford-street, Edinburgh, the wife of Alexander Barclay, M.D., Deputy Inspector-General of Hospitals, of a son.

Charlton.—On April 5, at Southborough, Tunbridge Wells, the wife of Alfred Charlton, M.R.C.S.E., of a son.

Cooper.—On March 30, at Prospect-place, Southampton, the wife of Robert T. Cooper, M.D.T.C.D., of a son.

Danson.—On April 4, at Roseville, Dartmouth, the wife of F. Adams Danson, M.D., of a son.

Dickson.—On April 9, at 36, Albany-street, Edinburgh, the wife of Dr. Frank K. Dickson, of Wye House, Buxton, of a daughter.

Innes.—On April 8, at Netley, the wife of Dr. W. F. Innes, C.B., Inspector-General of Hospitals, of a son.

Kerr.—On April 3, at Markyate-street, Bedfordshire, the wife of Norman S. Kerr, M.D., of a son.

Lake.—On April 7, at 13, East-park-terrace, Southampton, the wife of Dr. G. A. K. Lake, of a son.

Leadam.—On April 8, at 26, Gloucester-terrace, Hyde-park-gardens, the wife of W. Ward Leadam, M.D., of a daughter.

Liveing.—On April 1, at 9, Manchester-square, the wife of Robert Liveing, M.D., of a son.

Nugent.—On April 4, at 151, Ledbury-road, Bayswater, the wife of H. Nugent, M.D., of a son.

Rickards.—On April 3, at 8, Cavendish-place, Cavendish-square, the wife of Walter Rickards, M.D., of a son.

Smith.—On April 2, at Islip, Oxon, the wife of Walter Wyke Smith, L.R.C.P., M.R.C.S., of a son.

MARRIAGES.

Abraham—Burnett.—On April 3, at the parish church, Alton, Hants, Philip Boyle Abraham, barrister-at-law, only son of Augustus B. Abraham, of the Middle Temple, to Mary, third daughter of the late Charles Mountford Burnett, M.D., Westbrooke House, Alton.

Davies—Stephens.—On April 9, at St. Clement Danes, Arthur Capel, only son of David Davies, M.D., late of Belgrave-street, to Jane Helen Mary, only daughter of Edward Bowring Stephens, Esq., A.R.A., of Buckingham-palace-road.

Fagge—Briscoe.—On April 4, at West Hackney Church, Charles Hilton Fagge, M.D., F.R.C.P., of St. Thomas's-street, Southwark, to Emily Mary Christiana, elder daughter of the late John Briscoe, Esq., of Upper Sydenham.

Hilliard—Jewell.—On April 9, at St. Gabriel's, Warwick-square, Herbert Brewitt Hilliard, fourth son of G. R. Hilliard, M.D., of Cowper Lodge, Deal, to Rebecca, youngest daughter of the late R. J. Jewell, Esq., formerly of Newport, Isle of Wight.

Lanchester—Page.—On April 4, at St. Peter-at-Arches, Lincoln, Henry Thomas Lanchester, M.D., of Croydon, to Catherine, only daughter of W. T. Page, Esq., of Greetwell-road, Lincoln.

Plaskitt—Webb.—On April 4, at the church of St. Matthias, West Brompton, Joshua Plaskitt, F.R.C.S., of Chapel-street, Belgrave-square, to Lydia Frances, second daughter of the late C. T. Webb, Esq., of the Island of Mauritius, and of Petersham, Surrey.

Le Sueur—Daniell.—On February 6, at St. Mary's Church, Port Elizabeth, Cape of Good Hope, by the Rev. E. Pickering, M.A., assisted by the Rev. W. Greenstock, R. T. Le Sueur, M.D., District Surgeon, Port Elizabeth, to Florence, daughter of the late Captain Daniell, R.N., and niece to George Dunsterville, F.R.C.S. Eng., etc.

Salzmann—Sinnock.—On April 4, at the parish church, Hailsham, Sussex, Frederick William Salzmann, M.R.C.S. Eng., of Brighton, to Clara Selina, youngest daughter of H. C. Sinnock, of Hailsham, solicitor.

Sandford—Walmsley.—On April 4, at St. Barnabas, Kensington, Edward Sandford, M.D., of Baschurch, Shropshire, to Mary Ann, youngest daughter of the late Robert Walmsley, Esq., of Newton-on-the-Hill, Shropshire.

Sheppard—Nisbet.—On April 9, at Trinity Church, Paddington, Major T. W. Sheppard, late H.M. 87th (R.I.F.), to Margaret Agnes, daughter of the late M. Nisbet, M.D., Bengal Medical Service.

Shortt—Woods.—On April 4, at Birr Church, Parsonstown, James Fitzmaurice Shortt, Esq., Knockacollar, Queen's County, eldest son of the late William Shortt, M.D., to Lizzie Kate, eldest daughter of William Woods, Esq., Parsonstown.

Spencer—Harvey.—On March 12, at Agra, Lionel Dixon Spencer, M.D., Bengal Medical Staff, youngest son of the late William Spencer, of Newcastle-on-Tyne, to Elizabeth Gordon Lamond, eldest daughter of Alexander Harvey, M.D., Professor of Materia Medica in the University of Aberdeen.

Webster—Pearce.—On March 27, at Varnor Church, Brecknockshire, Thomas J. Webster, M.R.C.S. Eng., L.S.A., to Fanny Elizabeth, daughter of Thomas J. Pearce, Esq., Pen Bryn, Cefn, Merthyr Tydvil.

Williams—Hughes.—On April 3, at Libanus Chapel, Morriston, John Williams, M.D., of Swansea, to Mary Elizabeth Ann, only daughter of Richard Hughes, Esq., of Yuistawe, and of the Landore Tin-plate Works.

DEATHS.

Angus, George, late of the Bengal Medical Service, at 13, Golden-square, Aberdeen, on April 7, in the 78th year of his age.

Barnes, Thomas, M.D., F.R.S.E., and J.P. for Cumberland, at Bunker's-hill, near Carlisle, on March 31, in his 79th year.

Diver, Florence Helena, the daughter of Ebenezer Diver, M.D., at Caterham, on April 2, aged 2 years and 6 months.

Dwelly, Fanny, the beloved wife of Dr. H. J. Dwelly, at Rye-lane, Peckham, on April 8.

Hughes, Caroline Madelina Coke, the wife of J. Vaughan Hughes, M.D., L.R.C.P., M.R.C.S., L.S.A., accidentally burnt by her dress catching fire, and lockjaw supervening on the eighth day, at George-street, Hanover-square, on March 30.

Malden, Frances, relict of the late Jonas Malden, M.D., of Worcester, at her residence, 11, Royal-crescent, Cheltenham, on April 1.

Waugh, Margaret Edith, youngest child of Dr. John Neill Waugh, at Brisbane, Queensland, early in February, aged 1 year and 5 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Birmingham General Dispensary.—Resident Surgeon. Candidates must be duly qualified. Applications and testimonials to Alexander Bottle, M.D., Secretary, on or before April 17.

Dundee Royal Infirmary.—A qualified Medical man, to act as Joint House-Surgeon. Further particulars may be learned from the Secretary, D. Gordon Stewart, Esq., solicitor, 18, Meadow-side, Dundee, to whom applications, with testimonials, must be sent on or before May 1.

Echt, Aberdeenshire.—Medical Officer to the Parish of Echt.

Govan.—Medical Officer for the Patrick District. Applications and testimonials to be sent to Mr. Mackenzie, Sub-Inspector of Poor, Govan Parish, on or before April 16, marked "Medical Officer."

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

King's College.—Demonstrator of Practical Physiology.

Middlesex County Lunatic Asylum, Hanwell.—Medical Superintendent of the Male Department. Candidates must be Fellows, Members, or Licentiates of one of the Royal Colleges of England, Scotland, or Ireland, and duly registered in Medicine and Surgery. Copies (only) of testimonials, accompanied by a form (which will be forwarded on application), must be sent to Richard William Partridge, Clerk to the Visitors, on or before Saturday, May 4.

Parish of Kensington.—Medical Officer for the Workhouse and New Infirmary; also a Dispenser. Forms of application may be obtained from the Clerk to the Guardians, 1, Devonshire-terrace, Wright's-lane, Kensington, W., and must be sent in by April 15.

Royal Albert Hospital, Devonport.—Resident Medical Officer. Candidates must be unmarried, and duly registered Medical Practitioners. Applications and testimonials to be sent to the Honorary Secretary, Alfred Norman, Esq., endorsed "Application for appointment," on or before Saturday, April 20. Canvassing is strictly prohibited.

Royal Surrey County Hospital.—Assistant Honorary Medical Officer. Testimonials to be sent to the Hon. Sec., Rev. C. R. Dallas, Farncombe Rectory, Godalming, on or before April 16.

Staffordshire General Infirmary.—House-Surgeon and Secretary. Candidates must be M.R.C.S. of London, Dublin, or Edinburgh, and possess a qualification in Medicine which will entitle to register. Candidates must attend the Infirmary on Monday, April 22, at one o'clock.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Skirlaugh Union.—Mr. J. H. Clark has resigned the Aldborough District; area 9590; population 1734; salary £32 per annum.

APPOINTMENTS.

Burton-on-Trent Union.—Spencer Edmonds, M.R.C.S., L.S.A., to the Lullington District.

East Somerhouse Parish.—Thomas Leah, M.R.C.S. Eng., L.S.A., to the Workhouse and Parish.

St. Thomas Union.—John Rayner, L.R.C.P. Edin., M.R.C.S. Edin., L.S.A. Lond., to the Woodbury District.

Uxbridge Union.—Wm. Rayner, M.R.C.S. Eng., L.S.A., to the Workhouse.

The Earl of Derby formally opened the new Hospital in the Derby-road, Bootle, on Wednesday.

Dr. Woodward, whose energy in carrying out the provisions of the Compulsory Vaccination Act in Worcester is well known, has received the Government award for meritorious vaccination.

A new Hospital is to be built at Peterhead.

THE School of Medicine in Paris, it is stated, will reopen this week.

AT their meeting last week the St. Pancras Board of Guardians carried, by 4 to 1, a vote of thanks to Drs. Bridges, Claremont, and Dowse, for their fidelity and despatch in regard to the affairs of the Workhouse Infirmary.

THE Islington Board of Guardians have increased the salary of Mr. Broome, the Vaccination Inspector, from £100 to £120 per annum.

AT Zurich, during the last session, 1871-72, there were 145 male Medical students and 24 female.

ACCORDING to the *Kentish Express*, the Committee of the Dover Hospital have appointed a Dispenser at a salary of 5s. per week! We pity the patients.

THE Halifax Sanitary Committee have awarded Mr. Hodgson Wright £52 10s. for services as Medical Officer during the small-pox epidemic. They have also resolved to appoint an Officer of Health for the borough.

THE *Times of India* says that the Agricultural Department is about to commence a crusade against the drug gunga. Mr. Hume adduces statistics showing that of all causes of insanity in India gunga is the most prolific.

MEMOIR OF SIR JAMES Y. SIMPSON, BART.—We understand that, at the request of the executors of the late baronet, his friend, Professor Duns, D.D., F.R.S.E., has undertaken to write his biography.

SUDDEN DEATH OF A PHYSICIAN.—Dr. Masfen, of Stafford, was, we regret to say, found dead in his room on Monday evening, between nine and ten o'clock. One of the servants went into the room and left him writing, or about to write, a letter. On his return he lay upon the floor, and it was then found that he was quite dead. The deceased was 41 years of age.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC.—The opening address of the summer session was delivered in the Examination Hall, Trinity College, on the afternoon of Saturday the 6th instant, by Dr. Stokes, Regius Professor of Physic. The subject of the discourse was "State Medicine." A large and distinguished assemblage was present, including the Presidents of the Colleges of Physicians and Surgeons, the Governor of the Apothecaries' Hall, the Provost and Vice-Provost of Trinity College, Mr. Justice Lawson, Sir John Gray, M.P., and many others.

PROFESSOR DOLBEAU.—The following is the occurrence as stated by M. Alglave in the *Révue Scientifique*, which has brought such odium upon Professor Dolbeau, and which excited so tumultuous a demand for an explanation by the students of the Faculty:—M. Dolbeau, during the war of the Commune, received into the Beaujon one of the federals who had been wounded in the foot. The wound being very slight, M. Dolbeau was about to send the man away, when he supplicated him to be allowed to remain, declaring that he did not wish to fight any more for the Commune, but that if he returned home he would be compelled to do so in spite of himself. M. Dolbeau allowed him to stop. About a fortnight afterwards, the Versailles army having gained possession of the *quartier*, M. Dolbeau spontaneously indicated to an officer of the army, who could not conceal his surprise, this federal who had been under his care. The soldiers seized him and were about to shoot him, when a general passing by commanded them to desist. It is quite certain that two of M. Dolbeau's *internes*, one of whom had received the gold medal, instantly quitted his *service*, and a month elapsed before their posts could be filled up.

DR. ROBERT FOWLER, who for sixteen years was a District Medical Officer of the late East London Union, was this Easter nominated one of the Guardians of the Parish of St. Botolph, Bishopsgate. It was the first vacancy that had occurred since Dr. Robert Fowler, although the Senior Medical Officer of the three City Unions, failed at Midsummer, 1870, in being appointed one of the District Medical Officers of the Amalgamated City of London Union. The clerk of the Union has, however, struck out Dr. Fowler's name as being disqualified. The Local Government Board has yet to decide judicially whether the fact of Dr. Robert Fowler being an annuitant under the Poor-law Amendment Act, 1867, section 20, and being paid his annuity out of the Metropolitan Common Poor Fund, as enacted by the Metropolitan Poor Amendment Act, 1869, is thereby amenable to the proviso of 5th and 6th Vic., c. 57, sec. 14—viz., "That no person receiving any fixed salary or emolument from the poor-rates in any parish or union shall be capable of serving as a guardian in such parish or union." Dr. Robert Fowler has also been solicited to stand for the present vacancy in the number of Common Councilmen for the Ward of Bishopsgate.

THE FRENCH PROVINCIAL MEDICAL FACULTIES.—Great local exertions are being made on every side for the promotion of these. The Government has, as we have already noticed, determined upon the establishment of that of Nancy, in lieu of the Strasburg Faculty; but to this end great local resources will be contributed. A deputation from Bordeaux has been most favourably received by the Government, and has received a promise of legislative sanction for the efforts about to be made by the municipality, which has agreed to provide all necessary buildings, and to contribute a large annual sum towards the expenses of the new Faculty. The municipal authorities at Toulouse are also on the point of sending a deputation to the Government, hoping, they say, to obtain that recognition from a Republic of their claims to the establishment—or rather to the re-establishment—of a Medical Faculty which the Imperial Government repeatedly refused. The Lyons municipality, finding that the Government, for financial reasons, cannot just yet raise the Medical School of that city into a Faculty, has determined, in most courteous and gratifying terms, to provisionally increase the very moderate payments of the Professors of the School, and has promised large assistance in the event of the Faculty being established.

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon.*

C. O., Oundle.—You shall hear next week.

41, *Davies-street.*—We fear that we cannot furnish Miss Witton with any further information.

Health of Scarborough.—The Scarborough authorities have published a report on the condition of their town, in which they say that they have spent £50,000 in street improvements and drainage; that they have twenty-one miles of streets and roads, of which four miles and a half remain to be built on; that they have twenty-two miles and a half of sewers; and that no part of the inhabited area of the borough is without drainage. The estimated population on April 2 was 24,259, but in the season it is nearer 50,000. The rate of mortality (duly corrected for this increase of population) is not above 19 per 1000; nevertheless, they have taken the opinion of Mr. Bazalgette with regard to the extension and ventilation of sewers and the removal of refuse.

THE BAKER BROWN FUND.

This fund is being raised on behalf of Mr. Isaac Baker Brown, who is paralysed, and in great pecuniary distress.

Third List of Subscribers.

	£	s.	d.
Amount previously advertised	156	3	0
Mr. J. Harrison, Chester	5	0	0
Dr. G. C. Dale	1	1	0
Dr. Frederic Bird	2	2	0
Dr. Hastings	1	0	0
Dr. Goodfellow	1	0	0
Dr. Barr Meadows ...	1	1	0
Mr. John Gay	1	1	0
Mr. Borlase Childs... ...	1	1	0
Dr. Ramskill	2	2	0
Mr. Septimus Sibley ...	1	1	0
Dr. Pavy	1	1	0
Mr. John Wood	1	0	0
Mr. William Bowman ...	2	2	0
Mr. Victor De Méric ...	2	2	0
Mr. C. J. A. Malton ...	1	1	0
Mr. J. W. Trotter (Coldstream Guards) ...	1	1	0
Mr. H. Bullock, Isleworth	1	1	0
Mr. Thomas Hunt, Dorset-square	1	1	0
Dr. Barratt	1	1	0
Mr. Edward Newton ...	2	2	0
A. B., per Dr. Routh ...	2	2	0
Dr. Walter Rickards ...	2	2	0
Dr. Cleveland	1	1	0
Dr. Wharton Hood ...	1	1	0
Mr. Charles A. Aikin ...	2	2	0
A Lady, per ditto	1	1	0
Mr. T. Heckstall Smith, St. Mary Cray ...	2	2	0

The treasurers are Dr. Forbes Winslow, 23, Cavendish-square, and Dr. Charles Cogswell, 47, York-terrace, Regent's-park, to whom subscriptions may be sent.

ADMINISTRATION OF ALCOHOL.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Would you grant me a small space in your valuable journal to express my thorough concordance with the valuable paper of Dr. Lionel S. Beale in your impression of last week on "The Propriety of Prescribing Alcohol for the Sick," and on the "Medical Declaration respecting Alcohol."

It is a sad and most lamentable state of things to think that 250 of our metropolitan Professional brethren out of some hundreds (as well as thousands of provincial Medical men) should take upon themselves to censure the rest of the Profession with performing and being the means in their malpractice of causing such an awful and heartrending condition of the country as the "National Temperance League" have the audacity to express is the case in their pamphlet.

The accusation is made, I think, against provincial men more than metropolitan, because the Declaration excludes the names of the former.

It is also giving the National Temperance League, as well as other teetotal societies, the advantage of making great capital out of it, and also depreciating the influence of the Profession generally, except those who have, I think, unjustly signed the Declaration.

If a typhus or typhoid fever patient on recovery should still have the weak resolution to continue taking stimulants to excess, simply because it was found necessary in treatment, and the only means to keep the flickering spark of life from disappearing, why should the Medical attendant be

libelled with the cause of his or her intemperance, when no doubt if he saw it was necessary he would use all moral persuasion to the contrary, as well as diminishing the quantity of alcohol gradually as life was approaching a state of convalescence, in a similar manner that the influence of opium is got rid of? Apologising for trespassing upon your valuable space,

I am, &c., MEDICUS.

VACCINATION ETIQUETTE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—When a district vaccinator, from error in judgment, vaccinates persons in the district of another vaccinator, and being afterwards convinced of his error, still applies for payment and receives it from the Government, owing to the latter not wishing to be too particular in their payment of accounts at a time of emergency, ought he to retain the whole sum or hand over a portion of it to the district vaccinator in whose district he had performed the service by mistake? I am, &c., V. V.

[He ought to hand over half the fees to the vaccinator whose district he invaded.—ED.]

PILES AFTER LABOUR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Any of your readers engaged in the practice of midwifery will confer a great obligation by informing me any means their experience has taught them of averting hæmorrhoids after labour, either by prophylactic or direct treatment. A patient of mine suffers severely from them after each labour, and so severe and continuous is the anguish for four or five days and sleepless nights, that she anticipates the pains of labour as nothing in comparison. I am, &c., R. E. P.

COMMUNICATIONS have been received from—

Mr. R. BLAIR; Dr. H. G. LEE; Dr. R. C. R. JORDAN; R. E. P.; Messrs. KAY BROS.; MEDICUS; Mr. J. P. PUAVIS; Mr. C. S. WEBBER; Dr. H. BARNES; Mr. J. B. SIMONDS; Mr. ALEXANDER MURRAY; Dr. EUSTACE SMITH; Dr. BRUCE; Professor FLOWER; Dr. C. J. B. WILLIAMS; Mr. E. NETTLESHIP; Mr. METCALFE JOHNSON; Dr. J. RUSSELL; Mr. J. CHATTO.

BOOKS RECEIVED—

The Army Medical Department, Past and Present—Curability of Cancer, by Dr. O. von Schmidt.

PERIODICALS AND NEWSPAPERS RECEIVED—

Melbourne Argus, February 13—Madras Monthly Journal—Edinburgh Medical Journal—The Semi-Weekly Gleaner—The Englishwoman's Review—Journal of the Gynæcological Society—The Medical Archivea—Transactions of the Odontological Society, vol. iv., No. 5.—The Medical Investigator—Westminster Review, April—Practitioner—The Clinic.

APPOINTMENTS FOR THE WEEK.

April 13. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Mr. R. A. Proctor, "The Star Depths."

15. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m. Dr. Thorowgood will exhibit some new French Pharmaceutical Preparations. Dr. Leared, "A Remarkable Recovery after a Pistol-shot Wound through the Thorax." Mr. Royes Bell, "On Enchondroma of the Thumb." Dr. Edwards-Crisp will read an abstract of the Fothergillian prize essay for the year 1872 "On Croup."

16. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

PATHOLOGICAL SOCIETY, 8 p.m. The following Specimens will be exhibited:—Dr. Thorowgood, "Stricture of the Œsophagus." Dr. Langdon Down, "Abscess of the Liver, with Ulceration of the Colon." Dr. Bristowe, "Effusion of Blood into the Corpus Striatum, and Gangrene of the Lower Extremities owing to Obstruction of the Aorta by a Clot;" "Carcinoma of the Descending Colon, causing Fatal Obstruction." Dr. Payne, "Intracardiac Tumours." Dr. Moxon, "Lymphoid Cancer of the Small Intestine." Dr. Kelly, "Heart with Vegetations on the Valves from a Case of Acute Chorea associated with Embolism." Mr. Durham, "Intussusception of the Rectum." Mr. Croft, "Osteo-sarcoma of the Lower End of the Femur."

ROYAL INSTITUTION, 3 p.m. Dr. Guy, "On Statistics, Social Science, and Political Economy."

17. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

SOCIETY OF ARTS, 8 p.m. Meeting.

18. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

HARVEIAN SOCIETY, 8 p.m. Dr. J. F. Payne, "On a Case of Injury to the Cervical Sympathetic."

ROYAL INSTITUTION, 3 p.m. Dr. Tyndall, "On Heat and Light."

19. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 9 p.m. Mr. A. Vernon Harcourt, "On the Sulphurous Impurity in Coal Gas and the means of removing it."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 6, 1872.

BIRTHS.

Births of Boys, 1193; Girls, 1166; Total, 2250.
Average of 10 corresponding weeks, 1862-71, 2196·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	801	758	1559
Average of the ten years 1862-71	776·1	724·1	1500·2
Average corrected to increased population	...	...	1650
Deaths of people aged 80 and upwards	...	...	49

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	5	14	6	...	13	...	2	...	1
North ...	751668	26	29	4	2	37	2	6	...	2
Central ...	333887	1	3	1	...	6	...	4	...	1
East	638928	13	13	4	1	30	1	4	...	...
South	966132	20	9	8	...	32	...	3	2	3
Total	3251804	65	68	23	3	118	3	19	2	7

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·667 in.
Mean temperature	44·7°
Highest point of thermometer	60·1°
Lowest point of thermometer	32·3°
Mean dew-point temperature	39·9°
General direction of wind	N.N.E.&S.W.
Whole amount of rain in the week	0·47 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 6, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending April 6.	Deaths Registered during the week ending April 6.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2359	1559	60·1	32·3	44·7	7·06	0·47	1·19
Portsmouth ...	115455	12·1	75	38	57·8	30·6	44·5	6·95	0·39	0·99
Norwich	81105	10·9	52	40	56·5	32·0	42·8	6·00	1·30	3·30
Bristol	186429	39·8	159	105	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	50	32	52·0	32·4	41·7	5·39	1·55	3·94
Birmingham ...	350164	44·7	280	156	52·3	34·0	42·5	5·84	1·91	4·85
Leicester	99143	31·0	88	54	54·2	34·0	42·1	5·62	1·26	3·20
Nottingham ...	88225	44·2	59	41	60·6	32·8	43·3	6·28	1·45	3·68
Liverpool	499807	97·9	369	245	56·1	36·6	42·4	5·78	0·77	1·96
Manchester ...	352759	78·6	297	204	59·5	30·0	42·1	5·62	1·34	3·40
Salford	127923	24·7	111	94	56·4	30·0	40·9	4·94	1·48	3·76
Oldham	84004	20·2	55	39	...	...	...	...	...	...
Bradford	151720	23·0	81	82	59·6	32·6	42·2	5·67	1·83	4·65
Leeds	266564	12·4	191	129	61·0	34·0	42·3	5·73	1·60	4·06
Sheffield	247847	10·9	176	107	51·0	33·5	41·3	5·17	1·69	4·29
Hull	124976	35·1	104	55	48·0	31·0	40·1	4·50	0·98	2·49
Sunderland ...	100665	30·4	60	47	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	98	65	...	...	...	...	...	...
Edinburgh	205146	46·3	145	128	47·0	31·0	38·3	3·50	0·00	0·00
Glasgow	489136	94·8	383	289	...	...	...	...	...	...
Dublin	310565	31·9	156	181	62·4	28·0	44·8	7·11	0·63	1·60
Total of 21 Towns in United Kingd'm	7394345	34·0	5348	3690	62·4	28·0	42·3	5·73	1·17	2·97

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·67 in. The highest was 30·31 in. on Saturday, and the lowest 29·16 in. on Sunday, the 31st ult.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

ROYAL MEDICAL BENEVOLENT COLLEGE.

BIENNIAL FESTIVAL.

The Council have the pleasure to announce that the Right Hon. the Viscount MIDLETON has kindly consented to take the Chair at the BIENNIAL FESTIVAL of the College, which will be held at WILLIS'S ROOMS, King-street, St. James's, on FRIDAY, the 10th of MAY next. Dinner at Half-past Six o'clock. The following Gentlemen have undertaken to act as Stewards on the occasion, when it is hoped that there will be a large gathering of the friends of the Institution:—

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Baggallay, Sir Richard, M.P., Q.C., Queen's-gate.
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Blackburn, Joshua, Esq., J.P., Brockwell Hall, Dulwich.
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Britton, W. S., Esq., M.R.C.S., Acacia-road.
Burrow, John S., Esq., Great Malvern.
Burrows, J. Cordy, Esq., F.R.C.S., Mayor of Brighton.
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Walker, Joseph, Esq., M.R.C.S., Burslem.
Watney, James, jun., Esq., M.P., Hyde-park-gate.
Webb, Francis, Esq., Southampton-buildings.
Wildash, Henry C., Esq., M.D., M.R.C.S., Hythe.
Wilson, Erasmus, Esq., F.R.S., F.R.C.S., Henrietta-street.

Dinner Tickets, price One Guinea, may be obtained from the Treasurer, Henry Sterry, Esq., F.R.C.S., or from the Secretary, at the Office of the College, 37, Soho-square, where Donations and Subscriptions will be thankfully received.

By order of the Council,
ROBERT FREEMAN, Secretary.

37, Soho-square, London, 10th April, 1872.

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ORIGINAL LECTURES.

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture IV.

The second family of Apes, the *Cercopithecidæ* or *Cynomorpha* of Huxley, contains all the rest of the Old World species. It is divided into two groups or sub-families, chiefly distinguished by the structure of their digestive organs.

The one which is usually placed first consists of monkeys generally of slender form, with elongated limbs, very small anterior thumbs, and a long pendent tail. Of these, some are Asiatic, and constitute the genus *Semnopithecus*, the common hunooman or entellus monkey of India being the best known species; others are African, and being distinguished externally from the last by a still more rudimentary condition, or even absence, of thumb, have been generically separated under the name of *Colobus*. Among the Asiatic forms one of the largest species is remarkable among all monkeys for the extraordinary development of the external nose, which is far more prominent even than in man, whence by many naturalists it is made into a distinct genus under the name of *Nasalis*, though in all other respects its structure has not been shown to deviate from the other *Semnopitheci*.

None of the animals of this group appear to have been dissected by Hunter, and, with the exception of certain parts of the organisation of one or two of the commonest forms, their anatomy has never been properly described. With the exception of the hunooman the habits of the whole group in a state of nature are very little known, but it is probable that they are more exclusively vegetable feeders than the ordinary monkeys; young leaves and fruits are said to constitute the chief sources of their food.

Of the digestive organs of the entellus monkey the Museum contains several preparations. The tongue is rather thick and fleshy, with nearly parallel sides and a truncated tip. The circumvallate papillæ are three in number, of which the posterior or median papilla is smaller and less prominent than the other two. The fungiform papillæ are scattered pretty evenly over the surface, except upon the middle of the dorsum. The filiform papillæ have a thick, hardened epithelial covering, and are rather short, pointed, and mostly directed backwards. The lateral groups of vertical follicles in front of the attachment of the palato-glossal folds are strongly marked. As in the gibbons, there is a lamelliform triangular sublingual papilla ending anteriorly in a pair of long, narrow, pointed processes. The uvula is long and pointed. As far as is known, none of the *Semnopitheci* have cheek-pouches. Statements to the contrary met with in some works have never been substantiated by actual observation.

The remarkable condition of the stomach of these monkeys—briefly noticed by Wumb(a) in the proboscis monkey, described by Otto(b) in *Semnopithecus leucoprymnus*, and more fully by Owen(c) in *Semnopithecus entellus* and *fascicularis*, and subsequently by the same anatomist in *Semnopithecus maurus*, by Martin in *S. nasalis*.(d) and now known, in short, to be characteristic of the whole group—may be described as follows:—An ordinary stomach must be supposed to be immensely elongated, and gradually tapering from the cardiac end to a very prolonged, narrow, intestiniform pyloric extremity. Then two longitudinal muscular bands corresponding in situation to the greater and lesser curvatures of an ordinary stomach—the former commencing just below the fundus, and the latter at the cardiac orifice, and both proceeding towards the pylorus(e)—are developed, so as to pucker up the cavity into a number of pouches, exactly on the same principle as the human colon is puckered up by its three longitudinal bands. These pouches are largest and most strongly marked at the œsophageal end, and, becoming less and less distinct, quite cease several inches before the pylorus is reached, the last part of the organ being a simple smooth-walled tube. The fundus, or cardiac end of the stomach, is formed by a single large sac, slightly constricted on its under surface by the prolongation of the inferior longitudinal band, or that corresponding to the great curvature. The œsophagus enters into the upper part of the left or pyloric end of this sac, or rather at the point of junction between it and the second (also a very large) sacculus. Furthermore, the whole of this elongated sacculated organ is, by the brevity, as it were, of the lesser curvature, coiled upon itself in an irregularly spiral manner, so that when *in situ* the pylorus comes to be placed very near the œsophageal entrance.

There is little ground for describing the stomach as composed of three divisions; in fact, the anatomist whose description is generally followed in this respect, expressly guarding himself against being "understood to suppose these as being equally distinct with the different cavities of a ruminant or cetaceous stomach," says—"they are not characterised by any essential difference of structure, for none of them possess a cuticular lining." The only internal difference observed was "greater vascularity and more abundant distribution of nerves"(f) in the pyloric portion, as, in fact, is the case with most other stomachs. I am not aware of any observations having been made upon the distribution of the glandular structures in the walls of this curiously constructed organ.

It is in the sacculated stomach of monkeys of this genus that one of the most highly-prized varieties of oriental bezoars is found.(g)

With regard to the alimentary canal, Professor Owen gives the length of the small intestine of *Semnopithecus entellus* as thirteen feet six inches, or as 8 to 1 in proportion to the length of the body, being relatively longer than in either *Cercopithecus* or *Macacus*, in which he found the ratios to be respectively 6½ to 1 and 4 to 1. The large intestine was two feet ten inches long; the cæcum four inches, simple and conical, without any contraction dividing off a "vermiform appendage"; the biliary and pancreatic ducts entered the duodenum together about three inches from the pylorus.

I will return to the form of the liver in this genus after speaking of its structure in the next, in which I have had an opportunity of examining it more satisfactorily.

In an adult specimen of colobus (*Colobus vellerosus*), received from West Africa in spirit, there are no traces of cheek-pouches.(h) The tongue is long and narrow, with three large circumvallate papillæ, forming the corners of a triangle, with the apex directed backwards; close behind each of the large anterior ones is a smaller one of the same form. At the lower part of the frænum is a short and thick fleshy salivary papilla, constricted at the base, then dilating, and pointed and bifid at the extremity. The uvula is only represented by a muscular thickening in the middle line of the soft palate, producing no prominence on the edge, which is evenly arched. All the salivary glands are greatly developed, but more especially the submaxillaries, which are oval, compressed, two inches long, and one inch and a quarter in greatest width, and half an inch in greatest thickness, and in the usual situation, being concealed beneath the greatly expanded angular region of the jaw-bone. The masseter muscle is immensely powerful.

Unfortunately, the abdominal viscera of this animal had been removed before it came under my examination, but the Museum contains several preparations from a young example of the same species, which died in the Zoological Society's Gardens in 1864, which furnish some interesting information.

The stomach shows almost exactly the same form as that of *Semnopitheeus*, a fact previously observed by Owen in the allied species *C. polycomus* (*C. ursinus*, Ogilby),(i) and by Dr. Murie in the East African species *C. guereza*.(k) The colon is very little sacculated, and the cæcum is extremely short and simple, in form a blunt cone three-quarters of an inch in length, and relatively shorter than in any other monkey which I have examined.

The liver is very remarkable, being very small and pushed up by the immense stomach quite into the left hypochondrium, no part of it passing the middle line. On the other hand, it is

(a) "Mem. Soc. Batav."
(b) "Nova Acta Acad. Cæsar," vol. xii., 1825.
(c) *Transactions of the Zoological Society*, vol. i., p. 65, Pl. 8 and 9. 1833.
(d) *Proceedings of the Zoological Society*, 1837, p. 70.
(e) Martin mentions three muscular bands in *S. nasalis*, but this does not correspond with other observations.

(f) Owen, *Transactions of the Zoological Society*, vol. i., p. 67.
(g) An excellent account of the physical and chemical characters of these concretions is given by Mr. Taylor in the Catalogue of the Calculi and other Animal Concretions contained in the College Museum (Part ii., 1845).
(h) As noticed by Waterhouse in *C. polycomus* (*Proceedings of the Zoological Society*, 1841, p. 85).
(i) *Proceedings of the Zoological Society*, 1841, p. 85.
(k) *Proceedings of the Zoological Society*, 1865, p. 744.

considerably extended from above downwards, in consequence of its very oblique position. What are the usually more or less horizontal anterior and posterior borders are nearly vertical.

Fig. 13.

Fig. 13.—Upper surface of liver of *Colobus vellerosus*; *vc* vena cava, *rl* right lateral lobe, *rc* right central lobe, *lc* left central lobe, *ll* left lateral lobe.

The umbilical fissure is well marked, extending nearly half-way across the liver. The right segment is divided by a very deep cleft (right lateral fissure) into two lobes, of which the central (Fig. 13), *rc*, is the larger. The fissure extends quite to the posterior or attached border, and is so deep that the right lateral lobe, *rl*, is only connected with the central by a thin layer of hepatic substance in the bottom of the middle part of the fissure. The left segment consists of a large lobe, *lc*, with a rounded external margin, and with its upper part curiously flattened, as if by the pressure of the great stomach. A small quadrangular flattened lobule, *ll*, attached to the upper part of this, to the left side of the fissure of the ductus venosus, appears to be a rudimentary left lateral lobe. The Spigelian and caudate lobes (Fig. 14), *s* and *c*, are both moderately developed and elongated downwards, joining each other at an acute angle above; the former has a narrow neck and an expanded lobed termination. The vena cava, *vc*, runs quite superficially in its normal situation. The gall-bladder, *g*, is attached near the left side of the right central lobe, not reaching to its free border; and what appears to correspond with the cystic notch in livers of more normal form is a branch from near the middle of the umbilical fissure, running into the right central lobe opposite the fundus of the gall-bladder.

Fig. 14.

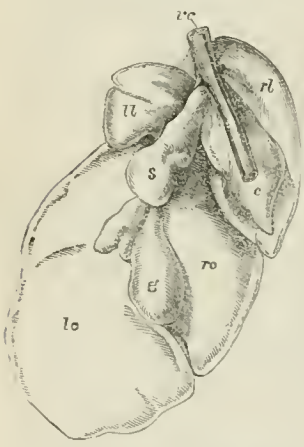

Fig. 14.—Under surface of the same liver; *s* Spigelian lobe, *c* caudate lobe, *g* gall-bladder; the other letters as in Fig. 13.

In two specimens of *S. nasalis* which I have examined the liver (one of which is mounted in the Museum) is formed on exactly the same general principle, and from Duvernoy's brief description of the livers of the entellus and the douc (*S. nemæus*),(1) I have little doubt but they are also similarly constructed. It is a form that does not bear out the idea of the author just quoted that it is intermediate between that of the anthropoid and the lower apes; but it rather appears to have been constructed on the type of the latter, and modified by, or accommodated to (as it were), the extraordinary development of the stomach with which it is found associated.

We now pass to a group of monkeys comprehending all the remainder of the Old World species, and which, though extremely different in outward form and habits—as may be seen by comparing the gentle and sprightly little round-faced, long-tailed *Cercopitheci* with the heavy, ferocious, dog-faced, quadrupedal, stump-tailed baboons and mandrills—yet are wonderfully alike in essential anatomical characters, and include so many intermediate or connecting forms between the extremes just mentioned that it is extremely difficult to divide them into well-marked sub-groups or genera. They are, however, usually arranged in the following genera, each of which has a tolerably restricted geographical distribution:—(1) *Cercopithecus* and (2) *Cercocebus*, both African, rather small, slender monkeys, with long tails. The common green monkeys and vervets belong to the first; the mangabey to the second. (3) *Macacus*, almost entirely Asiatic, with one exception, which extends along North Africa to Barbary, and even the rock of Gibraltar. The rhesus and pig-tailed monkeys are examples of this genus. (4) *Cynocephalus*, including all the monkeys commonly called baboons, distinguished by the elongated muzzle and terminal position of the nostrils, all inhabitants of the African region, including part of Arabia.

As far as is known, all of these monkeys are characterised, as relates to their alimentary organs, by the possession of cheek-pouches, or special dilatations of the buccal mucous membrane, in which they can stow away a considerable portion of food until a quiet opportunity occurs of masticating and swallowing it. They have also all a simple stomach and a rather short conical cæcum.

As an example of this group, I may describe the digestive organs of a well-known species of baboon (*Cynocephalus anubis*), preparations of which are now before you. The animal was a nearly full-grown male, which died in the Zoological Society's Gardens on December 29, 1871.

One of the most characteristic features of the genus to which this creature belongs is the great elongation of the jaws, both upper and lower, the mouth projecting forwards in front of the nostrils and eyes, thus giving a far less human expression than in the comparatively round-faced monkeys constituting several of the allied genera. The baboons, in fact, present the extreme of prognathism met with in the whole order. The lips are thin and flaccid; none of the mucous surface appears externally when the mouth is shut. They are connected to the gums by a well-marked median frænum above and below. Their mucous lining and that of the cheeks is soft, smooth, and without papillæ, but thrown into folds near the angle of the mouth. The cheek-pouches are not greatly developed; each forms, when distended, a hemispherical cavity about two inches or rather less in diameter, placed far back on the side of the lower jaw, at the junction of its horizontal and ascending ramus, not shut off by a very distinct constriction from the general cheek-cavity, but only by projecting folds of mucous membrane, the anterior of which is about an inch within the angle of the mouth, and opposite the first lower molar. The integument and other tissues covering these pouches are thinner and more translucent than in the other parts of the cheek.

The duct of the parotid gland opens on a papilla in the upper part of the cheek-wall, close to its union with the gum, and opposite the interstice between the second and third molar teeth. It is altogether above the boundary of the cheek-pouch. The palate is long and narrow, its lateral boundaries, formed by the upper molar teeth, being nearly parallel. It is arched from side to side, more so posteriorly than in front. The mucous membrane is raised into a double series of crescentic ridges, one on each side of the middle line, harder and of a whiter colour than the spaces between them, extending from the front of the palate as far back as the last molar tooth, ten on each side, not symmetrically disposed, and smaller and more irregular at the two ends of the series. Each ridge has two unequal faces meeting at an angle on the summit, one, which is larger and more sloping, being turned forwards, the shortest and steepest face being directed backwards, so that their mechanical tendency would be to cause substances rubbed in contact with them to pass backwards rather than forwards. Behind the molar teeth the palate is redder, softer, and glandular.

The isthmus of the fauces is very small, and when the tongue is depressed is almost a square with the corners rounded off, the anterior pillars or palato-glossal folds being very strongly marked. The space between them is one inch in width, and they are situated five inches behind the incisor teeth. The soft palate terminates in the middle line by a nvula, rather shorter and more pointed than in man. The tonsils form well-marked elevations, the surface of which is covered with the openings of large follicles, as in man.

The tongue is 4·6 inches long, very narrow behind (not more than 1 inch), but broader (1·9 inch), almost spoon-shaped in front, with a very obtuse apex. Near the posterior part of the dorsum, a little way in front of the attachment of the palato-glossal fold, are a pair of very large circumvallate papillæ, with smooth, tumid, elevated outer walls, seven-tenths of an inch apart. In the middle line posterior to these (so that the three form the corners of an equilateral triangle) is another, much smaller and less conspicuous. Near this are several irregularly placed and still smaller papillæ that may be grouped

(1) Cuvier's "Anatomie Comparée," 2de edit., tome iv., 2de partie, p. 437. 1835.

in the same class, though they pass insensibly into the next. The fungiform papillæ are numerous and large, scattered pretty regularly all over the surface, but more numerous near the sides and apex, and most scarce in the middle part of the dorsum. They are circular in outline, and vary considerably in size. The conical or filiform papillæ are abundant, long, and almost hair-like over the greater part of the dorsum, where they are mostly directed backwards; shorter and more simple at the apex and sides.

At each side of the hinder part of the tongue, extending forwards for the distance of an inch from the point of attachment of the palato-glossal fold, just below the line of junction of the papillated with the smooth mucous membrane, is a row of slit-like orifices, about ten in number, placed obliquely. their upper ends slanting forwards, doubtless the openings of secreting follicles. A similar structure, though in a less developed condition, was observed in man and the other forms of apes which have been treated of.

The free folds of mucous membrane, diverging backwards from the apex, previously noticed on the under surface of the anterior part of the tongue in man and the chimpanzee, do not exist.

The tongue is attached in the middle line below by a large lax frænum, commencing an inch and a quarter behind the tip. Rather below the middle of its anterior edge is a soft, fleshy, flattened body two-tenths of an inch in length, terminating anteriorly in a pair of conical-pointed papillæ, and with notched lateral margins.

The submaxillary gland is of a flattened and broad oval form, an inch and a quarter in greatest diameter. Its duct (Wharton's) leaves its anterior edge (where are three or four loosely connected accessory lobules), runs straight forwards between the sublingual gland and the genio-hyo-glossus muscle, and terminates by a minute orifice on the upper or lingual surface of the sublingual papilla of the corresponding side, nearly two-tenths of an inch from the apex and very near the middle line. The duct is four inches in length.

The sublingual gland consists of an elongated mass in the usual situation between the mucous membrane of the mouth and the genio-hyo-glossus muscle, two and a half inches in length and three-quarters of an inch in greatest breadth. Its ducts (about a dozen in number) open by minute orifices along the side of the frænum linguæ, the first one being on the under surface of the sublingual papilla, others as far as two inches behind. In the anterior part of this region the openings are situated on the lower surfaces of a row of flattened papillæ continued backwards from the lateral margins of the large anterior sublingual papilla.

Abdominal Viscera.—The great omentum hangs down from the lower border of the stomach, and completely covers the intestines, passing down in front of them into the pelvis. It adheres to the large intestine only at the right extremity of the transverse colon, and sometimes to part of the ascending colon, the remainder of this intestine being quite free (as noticed by Hunter in his dissections of monkeys), and simply overlaid by, and not enclosed within, the omentum. It is formed, as usual, by a double layer of peritoneum descending from the stomach and returning behind that organ, enclosing a cavity which passes behind the stomach and communicates with the general peritoneal cavity by the foramen of Winslow.(m) The colon is larger and more convoluted than in man, especially on the left side. The three longitudinal bands are very strongly marked, and it is much sacculated as far as the commencement of the rectum, which is the narrowest part of the whole intestinal canal.

When the stomach is inflated *in situ*, with all its natural connexions, its pyloric end turns forwards against the anterior abdominal wall. Its shape scarcely differs from that of the human stomach; but the pyloric portion is rather more elongated, tubular, and bent upon the small curvature. It is not so distinctly constricted from the main cavity as in some of the *Simiidæ*.

The small intestine is 110 inches long, or rather more than four times the length of the animal. Its mucous lining shows no trace of valvulæ conniventes. The villi are numerous, but soft and small. Peyer's glands are large, about twenty in number altogether; most abundant in the lower half of the intestine, where they are mostly one inch and a half to two inches long, and half an inch broad. The bile-duct enters the duodenum not quite two inches from the pylorus.

The large intestine is altogether fifty inches in length; therefore much longer in proportion to the small intestine than in man. Throughout its mucous surface are scattered dark-coloured follicles, of the size of pins' points, either solitary or aggregated in groups of from two to six or eight in number, arranged in an oval form, the long diameter of which is transverse to that of the intestine.

The cæcum is three inches long, obtusely conical; the true apex (as indicated by the disposition of muscular bands which centre in it) is terminal, but it is not constricted or lengthened out into an appendix vermiformis.(n)

The pancreas is very like that of man in form and connexion, the right end adhering very closely to the duodenum. It is five inches in length.

The liver appeared large for the size of the animal. When laid out flat on its under surface its outline is rather square, but longer transversely than from before backwards, being seven inches and a half across, and six in greatest depth. The notch for the umbilical vein, one inch and a half in depth, is situated an inch to the left of the middle of the organ. The united central lobes are nearly square in shape. The great lateral fissures are very deep, especially that on the left side, which almost entirely cuts off the left lateral lobe from the rest of the liver. The lateral lobes are about equal in size, but of different shape, the left being subtriangular with a rounded outer margin and a pointed anterior extremity, the right being four-sided.

On the under surface (Fig. 15) the umbilical fissure, *u*, is

Fig. 15.

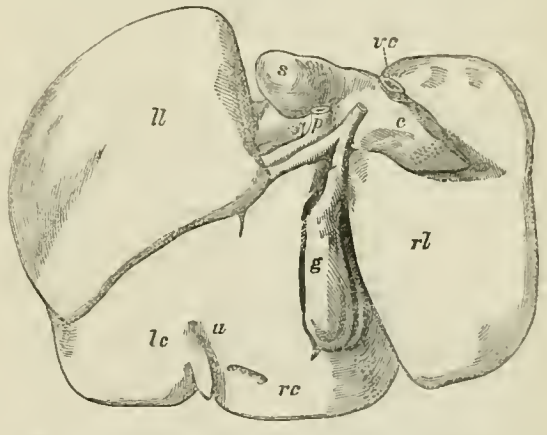

Fig. 15.—Under surface of liver of Anubis Baboon (*Cynocephalus anubis*): *ll* left lateral lobe, *lc* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *s* Spigelian lobe, *c* caudate lobe, *u* umbilical fissure, *vc* vena cava, *p* vena portæ, *g* gall-bladder.

bridged over for the middle two-fourths of its extent, but the fissure of the ductus venosus is deep and distinct. The transverse fissure is an inch and a half in extent. The fossa of the vena cava is not bridged over, the vein being quite superficial. The Spigelian lobe, *s*, is rather small, forming a simple, subcompressed, nipple-like prominence, directed to the left. The caudate lobe, *c*, is distinct, trihedral, sharp-pointed, free from the right lateral lobe in the greater part of its extent, two inches long, connected with the Spigelian lobe by a broad base, and with its apex not reaching the edge of the right lateral lobe by nearly an inch. The gall-bladder is rather small and narrow, deeply embedded in a fossa near the right border of the right lateral lobe, the free anterior edge of which its apex does not reach by a distance of an inch.

A similar form of liver characterises all the other members of this family; in the deeply cleft lateral fissures it differs from that of the *Simiidæ*, and in the comparatively small pointed caudate lobe from that of the families next to be spoken of.

(To be continued.)

(m) I have found this arrangement of the great omentum in all the members of this group which I have dissected, though M. Broca, who has recently written on this subject, says:—"Chez la guenon mono (*Cercopithecus mona*) et chez le papion (*Cynocephalus sphynx*), le grand epiploon ne se composé que de deux feuillets . . . . il ne renferme aucune cavité." ("L'Ordre des Primatés Parallèle Anatomique de l'Homme et des Singes." Paris, 1870, p. 119).—See Lecture ii., p. 291.

(n) In a specimen of *Macacus silenus*, Hunter noticed "an appendix cæci of about half an inch long, and of a pyramidal figure." ("Essays and Observations," vol. ii., p 13). I have seen, in a young *Cynocephalus hamadryas*, the terminal portion of the cæcum suddenly constricted and forming a kind of appendix; but these are cases of individual variation, approaching the condition characteristic of the higher family of *Simiidæ*.

CLINICAL LECTURES ON INTESTINAL OBSTRUCTION.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

Lecture III.

Gentlemen,—In the two preceding lectures we have considered in its Surgical aspect the subject of intestinal obstruction, and we have traced this out to causes either inside or outside the intestine; to simple atony of the bowel, to tumours either within or external to and pressing on the gut, to bands, or to intussusception, and we lastly came to consider the subject of hernia, but only in its displaced form. I purposely avoided the ordinary palpable form of hernia that comes before us so very generally, for I have been willing to assume that, as regards the diagnosis and treatment of such cases, there is nothing but what you are already quite familiar with and fully understand. I propose to-day to follow up that subject, and more particularly with regard to the question of exploration in hernia. I have told you in a previous lecture that in all cases where you feel called upon to explore, and a hernia exists, you should begin your abdominal examination at that part. I illustrated that last time by those cases of hernia known as inter- and intra-parietal hernia. I showed you how in one case, the congenital form, the tumour had simply been caused by the pushing up into the abdominal cavity of the vaginal process of peritoneum that forms the covering to the cord in such cases. In the second case, I told you that rupture had taken place at the neck of the sac, and the intestine had been pushed through the opening; and in the third that a new sac had been formed by the dilatation of one side of the neck of the original sac.

I explained to you how reduction *en masse* could occur, and illustrated it by two cases—one my own, and one kindly lent by my friend Mr. Morris. What, therefore, I should like you to bear in mind as a clinical rule in practice is this—In all cases of hernia, always (if there are symptoms of intestinal obstruction) explore it; but I would even go further than this, and say—In all cases of intestinal obstruction, not only when a hernia exists, but whenever there is a history of old hernia, or whenever you have a tittle of evidence that a hernia may exist, it is your duty to explore it, and, as I have before said, to begin your exploration at that spot. Failing to find there any local cause for the symptoms, you may then have to enlarge your opening into the abdominal cavity itself.

I propose now to draw your attention to cases, not of hernia, but of tumours simulating hernia, in which the symptoms of hernia exist, and which may give rise to this fallacy. One of the most striking of such cases I will now read to you from my notes taken at the time:—

Case simulating Strangulated Hernia—Suppuration of the Tunica Vaginalis of an Undescended Testicle.

On August 16, 1871, I was called by Mr. Baxter Forman, of Stoke Newington, to visit a young gentleman, aged 14, who had symptoms of strangulated intestine. He showed no signs of puberty, and his left testicle had not descended below the inguinal canal. Three days before my visit, without any assignable cause, he was seized with abdominal pain and vomiting, constipation existing. A swelling in the left groin also appeared. Mr. Ferman saw him on the second day, and thinking it probable that some hernia had descended into the open vaginal process of the peritoneum, applied the taxis, but with no good result. He had, however, some slight relief from the bowels. When I saw him on the third day he was in great pain, vomiting whatever he took; the abdomen was tender. In the left groin a swelling the size of an egg existed, in which was the testicle. This swelling fluctuated, and was elastic. The pulse was 120; tongue furred. I felt nothing was open to us but to explore the tumour, and this I did.

I laid open the canal, and then the vaginal process of the peritoneum which included the testicle, and in doing this a quantity of pus at once escaped. The peritoneal process was much thickened, and its cavity was lined with lymph. The testicle was small and apparently uninvolved. There was no hernia nor any communication with the abdominal cavity.

After the operation all symptoms disappeared, and a good recovery ensued. It was clear that all the symptoms were due to an acute inflammation of the tunica vaginalis; they had nothing to do with the bowel.

This boy's case was a very striking one; from a clinical point of view it is full of interest. There were all the symptoms of strangulated bowel, accompanied by a local tumour in the groin, just in the position in which a hernia would be naturally found, and the Surgeon unquestionably had not the shadow of a doubt as to its being a hernia. Holding that opinion, he applied, and rightly applied, the taxis. He told me at the time it was not very forcible, and I had no reason to think from the appearance of the tumour that it was; there was no ecchymosis or other such external marks as one generally expects to find as the result of rough usage. What, then, was to be done? Acting on the rules I have given you, it was clearly my duty to explore it, and then I discovered it was nothing more than acute suppuration of the tunica vaginalis—acute hydrocele, I might call it—involving that particular part of the cord. After the operation, recovery ensued. What I would wish you to bear in mind however, is this—that we may get suppuration in the tunica vaginalis in the groin, simulating hernia and associated with all the symptoms of strangulation; but it does not make the treatment differ in the least from that which I have laid down. In the case before us there was suppuration, and, had we not opened it externally, it would have been more likely to have travelled up into the abdominal cavity rather than to have discharged itself externally. Allow me now to quote another case of great interest, in which some difficulty in diagnosis existed; it occurred in the practice of the Messrs. Toulmin, of Upper Clapton. The case is as follows:—

Mark C., aged 4, was suddenly seized, on January 27, 1872, with a painful swelling occupying the left scrotum and groin, the neck of the swelling passing well up to, if not through, the internal ring, from which it could not be separated. The swelling was painful, and was associated with constipation. Mr. Toulmin was sent for, and, regarding it as a case of hernia, he applied the taxis. No success following its application, he sent for me. When I saw the boy, twelve hours after the first appearance of the tumour, I found the left groin filled with a tense swelling, having a longer transverse axis than vertical, and the scrotum distended with a translucent swelling. The two swellings were apparently continuous, if not the same. The scrotal could not be separated from the inguinal, nor the inguinal from the abdomen. The parts were very tender, and could only be examined when the child had been anæstheticised. There was no vomiting; but local pain, abdominal pain, and constipation existed. I accordingly tapped the transparent scrotal swelling, and drew off some blood-stained fluid that coagulated into a solid mass on boiling. The inguinal swelling, however, remained unaffected. Pressure upon this made no impression upon it. Thinking it possible, therefore, that the inguinal tumour might be a hydrocele of the cord, as the scrotal was evidently a hydrocele of the testicle, no further proceedings were undertaken; for with the chance of its being a hernia the operation of tapping was discarded, and with the chance of its being a hydrocele any exploratory cutting operation was postponed till some evidence of strangulation appeared—for it must be remembered that no vomiting had taken place.

Under these circumstances it was agreed to leave things alone, and wait. Twelve hours after chloroform had been given, he vomited once, and then remained quiet for twenty-four hours, when he vomited again, but so slightly that it was thought it might have been due to food which he had taken, as the child was hungry. When it reappeared, after the lapse of another day, I was again summoned.

I then found the tumour had altered in shape, and clearly presented the long pyriform appearance of a recent congenital form of hernia. It was then agreed upon to explore it.

With this view chloroform was again given, and the taxis applied, the tumour suddenly disappearing—that is to say, its inguinal portion passed upwards into the abdomen with the sudden rush of a hernia, and the scrotal portion was left. The hernia was reduced, and the hydrocele remained. A good recovery ensued.

How it was that the taxis had failed when originally applied it is difficult to decide; but it was clear that Mr. Toulmin's original opinion as to its nature was the correct one, and that the presence of the hydrocele when I saw it made me doubt the fact.

Here we had clearly a compound case—acute hydrocele with hernia. Of course some might say, Would not the hydrocele be due to the taxis that had been applied? Well, that is a fair possibility; it might have been produced by the mechanical irritation set up. But, however, waiving that point, let us return to the case. Recognising the fact of the lower part of the swelling being due to hydrocele, I was somewhat disposed

to think the upper part might be owing to the same cause. But I am bound to state that the Medical man attending the case still adhered to his first opinion, and believed it to be a hernia. The true nature of the case, however, being manifest, it was easy to see how the symptoms were caused. The hernia could not descend into the tunica vaginalis through the external ring on account of the presence of this watery bag below, and thus we see that the tumour had its longest diameter transversely between the internal and external rings, simply because it was mechanically prevented from coming down by the hydrocele. Here are two cases, then, the clinical value of which I do not think can be well equalled.

So much, then, gentlemen, for the subject of hernia as a cause of intestinal obstruction; we will now pass back again for a few moments to discuss a point connected with the treatment of intestinal strangulation. I told you that in cases of acute intestinal strangulation of bowel I did not think the Surgeon should any more hesitate in performing an abdominal section than he would hesitate in opening a hernia when symptoms of strangulation existed. I cannot help speaking strongly on this point. I do think the two cases are precisely similar. We all know that in a case of strangulated hernia, if relief is not given, and given speedily, death is the inevitable result; and we as well know that in cases of acute intestinal obstruction, if relief is not afforded, death must as inevitably occur. Why, then, should we resort to a remedy that proves so successful in the one set of cases, and hesitate to apply it in the other? The only thing that has hindered the Surgeon is a general horror of the operation, and the greater magnitude of it. When you get it associated with the presence of a hernia, we have already seen your course is clear before you. You are bound to explore that; and, finding nothing there, are bound to go up further. But I am talking now of cases where you find nothing of the kind—such cases, I mean, as bands or twists; cases of internal strangulation. Let us consider what means the Surgeon has at his disposal for their treatment. If you just ask yourselves what a strangulated bowel really means, you will easily see that other means than those which we have already discussed might be thought of, by which relief could possibly be produced. I will lay before you the line of thought in the way in which it presented itself to me. Here is a piece of intestine passing through a tight ring. We will assume for the moment that the ring is a solid ring—one that does not stretch or expand. The intestine beyond the ring becomes distended and enlarged from flatus or fæces. The bowel becomes strangulated in its unnatural position by a want of fair relationship between the intestine and the ring. It may be an effusion of serum takes place on account of pressure on the vessels preventing the return of blood; the bowel becomes irreducible and inflamed—in fact, strangulated—and if left alone would subsequently slough, just as my finger would slough if I tied a piece of string tightly round it. The bowel becomes strangulated by causes acting within the ring in the bowel itself. Now, I think it is not difficult to understand that if we could empty that intestine of its contents the arrest of the flow of blood out of the intestine would cease, the circulation would go on, the strangulation would cease. Now, you see what I am aiming at as regards the possibility of taking away the cause of strangulation. We cannot take away the constriction of the ring, of the neck of the sac without division; but cannot we give relief through the intestine itself? Let us consider this point.

You know the question of the desirability of puncturing the intestine when distended with flatus has been well ventilated of late. Many cases have been recorded in which the operation has been performed with more or less success. I honestly say that my prejudices have been much against it, although there is every reason why it should have been otherwise, because at this institution it has been tried more than at any other. Mr. Stocker, who has more clinical experience than almost any man in London, has always been in favour of it. He always used to say, when a man was suffering from wind in this way, "Tap him; the cow-keeper taps his cows and they recover, and why should we hesitate to tap in similar cases?" I have done it myself on two occasions in cases of ileus, and with immense relief. Of course the great argument against it is this: you tap an intestine that is full of flatus, fluid, or fæces, and in putting your needle in there is the danger that some would escape into the abdominal cavity and set up peritonitis. It is solely that fear that has prevented my doing it except in extreme cases. But I think I can give you a case which will help you to form some idea as to the correctness of these conclusions. It is as follows:—

Strangulated Scrotal Hernia (Cæcal)—Herniotomy—Puncture of Intestine—Recovery.

On August 18, 1871, my friend Mr. Kelson Wright, of Kennington, asked me to see with him a case of strangulated hernia in an old, half-childish man, aged 71. He had been the subject of a right scrotal hernia for thirty years, and had worn a truss. He had had occasional difficulty in its reduction after its descent; but Mr. Wright had always succeeded in reducing it. On the present occasion the same effort had failed, and when I saw him vomiting had existed for two days, and a large hernia existed in the right side of the scrotum; one portion of it felt tenser than the other. Chloroform was given, and the taxis employed, but without success; consequently herniotomy was performed, it being necessary to expose the bowel. When this was done the cæcum escaped, dragging down with it some three inches of small intestine covered with peritoneum—the external ring pressing firmly upon it. With some difficulty the bowel was returned, the wound brought together, and the whole carefully bound together by means of a pad and spica bandage of strapping. A morphia suppository was given.

During the night, however, this old man would get out of bed, and in the attempt he tore off all the dressings. As a consequence, the bowel came down again; vomiting returned, with abdominal pain. Mr. Wright was sent for, but all his efforts to return the intestine were fruitless. I was consequently sent for. I found the old man lower than when I saw him before. The hernia was down larger than ever. I gave him chloroform, and attempted reduction, but failed. I then increased the opening at the internal ring; but on doing this more large intestine came down, and no effort of mine could reduce it. I consequently punctured the intestine in four or five places with a grooved needle, and let off the wind; this measure enabling me to do what, under other circumstances, I could not do—reduce the hernia. The wound was then readjusted, and a good pad firmly secured on with strapping, opium being given; and, I am pleased to add, no one bad symptom followed these rough measures, and a good recovery ensued.

Mr. Wright tells me the wound united without a drop of pus appearing, the whole uniting by primary union.

It was interesting to note that when the bowel was punctured nothing but wind escaped, except in one spot, where the smallest drop of blood oozed out, evidently from the congested intestinal walls. None of the contents of the intestines escaped even after the rough manipulation to which they were subjected.

Now that case, gentlemen, I think is a text on which we might go on freely dilating on the benefit of puncturing the large intestine. I think it has given us a great lesson. There was a large piece of intestine entirely exposed, the ascending colon and, I believe, the greater part of the transverse colon distended tremendously and black, not from effusion of blood, but from congestion. I had been pressing and squeezing that intestine in my endeavour to get it back for I should not like to say how long, but it must have been for a great many minutes. It had been, as the Medical man expressed it, "literally mauled," and we both felt that the old man would die on the table there and then; but I could not stand by without giving him the chance any further interference might afford. So I punctured the intestine, and, after a great escape of wind, I was able to return a part of it. In the second puncture, just a little drop (about the size of a large pin's head) of black stuff oozed out, clearly blood coming from the congested walls of the intestine. I punctured four or five times until I had reduced the whole of it. No fæces escaped whatever, although during the whole of this time I was so manipulating the intestine that if it was possible anything could come out it would have done so. After the patient recovered I asked myself the question: If the large intestine, exposed to view as that was, and not supported in any way by the abdominal walls and contents, could be tapped without any escape taking place, surely, where the intestine is supported, the risk of extravasation would be greatly diminished by the natural support given to it in the abdominal cavity? I think we must draw this conclusion, then: that there are cases in which you may puncture the intestine freely, and with every prospect of affording great relief. In hernia this case clearly proves that you may resort to it, and I believe you had better adopt it if there be much trouble in returning a very large hernia. Had I learned this lesson earlier, I should have tapped long before I did. But might we not employ this treatment much earlier? If, after operating, we can reduce a strangulated hernia by pricking, which we could not reduce without,

is it not possible that we might reduce some herniæ without any operation at all? Consider a small enterocele. See the intestine bulging beyond the neck of the sac and becoming congested. See how it becomes more strangulated and congested if reduction is not effected. If you tap it you let out all the wind, the whole of the knuckle of intestine collapses, and you get only a little flaccid lump. Under these circumstances, what is there to prevent the bowel being replaced by natural agency? I confess my liking for the idea from a Surgical point of view: I think it is scientifically correct, and I see nothing to prevent it having the desired effect. I cannot recommend it practically, because I have had no experience of it; but I intend to test the value of it when a suitable case comes before me. And what would constitute a suitable case? Not those slight cases where you can return the intestine without opening the sac, because we know, as a rule, they do well. But I certainly will try it in those cases of hernia that we not infrequently get in Hospital, and sometimes even in private practice—large scrotal herniæ, and large umbilical herniæ, the interference with which is nearly always followed by death. It is quite exceptional for a large inguinal or umbilical hernia to recover after herniotomy when the sac has been opened. By opening the sac I mean not only just at the neck, but complete exposure and manipulation of the contents. In both such cases, then, I shall most certainly apply this practice. Now let us carry this thought a little further. You remember the case I related of a young lady who had strangulation of intestine, evidently from the mere grip of a coil of intestine by a band running from the loin to the bladder. The band would not yield, the intestine could not get out, and every moment rendered the strangulation more intense. Now, supposing I had tapped the intestine, and let out the wind, the bowel would have collapsed, and the bladder, as it became distended, would have allowed the intestine to escape. Then, further, in cases of twist of the intestine you might get much the same thing. When once twisted and distended, it is difficult to untwist, but if the distension is relieved by tapping, you give the bowel a chance of righting itself. Considering, then, with such examples as we have, that tapping is not attended with much danger, surely we are justified in having resort to it before any more serious operative interference, with every prospect of doing good. Do not, however, go away with the opinion that you should adopt it in all cases. But I think, taking that case I narrated as our text, in large strangulated scrotal hernia, strangulated umbilical hernia, and in all cases of acute internal strangulation due possibly to bands or twists, that we may reasonably look for very good success in its practice.

There is one other point I will just touch upon before we separate to-day, bearing upon the question of umbilical hernia. You heard me say how very fatal the treatment of umbilical hernia by operation generally is, that it is quite exceptional for recovery to take place. In all the years I have been at Guy's the only cases in which recovery has taken place have been those in which the contents of the sac have never been exposed. The stricture has been divided—I cannot say outside the sac—but an opening has been made only just sufficiently large to allow a herniotome to pass. I have had three or four such cases, and they have got well. In all the other cases, where more has been done, death has followed. I would go a little further, and say—Do not attempt to return an umbilical hernia; they are almost always chronic, slow in formation, and exist for many years before strangulation takes place. I think in large herniæ I would puncture; but when you must operate, never be tempted to expose the bowel—simply cut down on to the neck of the sac, divide the structure by a herniotome, and leave the rest to nature. You relieve the strangulation by simply dividing the neck, precisely in the same way as I believe you would relieve the strangulation by tapping the bowel.

At our next meeting, gentlemen, I propose to consider in all its bearings the operation of colotomy.

Public Baths on the Thames.—It was time some such step was taken. A bath is to be constructed off Battersea-park, and the company which has undertaken the work intends fitting up another—provided with a filtering apparatus—close to the Embankment, between the Temple and Waterloo-bridge. The late Dr. Véron, in his "Mémoires d'un Bourgeois de Paris," says that cleanliness was introduced into France after 1815, by the English; and the French might any time during the last half-century have taken a brilliant revenge (*une revanche éclatante*) by introducing swimming-baths in London.

ORIGINAL COMMUNICATIONS.

NOTES ON THE PATHOLOGY OF MALIGNANT NEW GROWTHS.

By HENRY ARNOTT, F.R.C.S.,

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VIII.

Epithelioma—Its Distinction from Carcinoma—Its Minute Structure—Columnar-cell Epithelioma—Rodent Cancer.

These sketches of the various new growths, commonly called cancers, will be fitly brought to a close by a reference to the well-known disease which, from its cancer-like nature, has been usually styled "cancroid"—a term which is objectionable from its vagueness, but which aptly enough expresses the clinical characteristics of the disease.

For Epithelioma—by which is meant a new growth furnished by the proliferation of the epidermis, or by the epithelium of the mucous membranes—although sometimes in its later stages thoroughly malignant, affecting chain after chain of lymphatic glands, and cropping up luxuriantly in remote viscera, as the heart and lungs, is yet a growth far more under surgical control than any of those which we have been considering. For while with our present mode of operating we hesitate to affirm too boldly that we can eradicate a scirrhous cancer by cutting it out, there are few Surgeons who would deny that they have finally extirpated a small epithelioma of the lip or scrotum by a comparatively trifling operation.

So it is that this disease has been almost always separated somewhat from the true cancers, whilst some able observers—the late Mr. Collis, of Dublin, for instance—have refused to place it in the same category at all. And yet the more modern pathologists, as Billroth and Rindfleisch, merely regard it as a variety of carcinoma, affirming a close analogy of minute structure and pointing to the difference of origin of the cells of the two growths—glandular, or surface epithelia—as constituting the sole claim to separation into distinct varieties.

Nevertheless, although both growths are made up of epithelial cells and stroma, and in certain points are closely analogous, I cannot help thinking that we, in England, are wise in keeping them distinctly apart; for both in coarse physical appearances and in minute structure the disease to be now sketched differs from that which we have described under the head of carcinoma as widely as it differs from it in the far more important features of clinical history and symptoms.

An epithelioma of the cutaneous surface, occurring usually as a shallow hard ulcer with thick fungous edges, presents a favourable specimen for exhibiting the characteristic microscopic structure of the growth, as well as its mode of origin and of invasion of the neighbouring parts. On examining a thin section from the margin of such an ulcer, one is at once struck by the fact that although here, as in carcinoma, we have before us clumps of epithelial cells in an irregularly alveolated stroma, yet the cells now differ hardly at all—save, perhaps, in their size and active nuclear proliferation—from the normal epidermis cells from which they have descended. We lack here the rich variety of cell-forms which supplant the small regular gland epithelium in carcinoma of the mamma, for instance, and at the same time we notice how comparatively slight are the fatty changes occurring in the misplaced epidermis scales. They dry up, shrivel, become squeezed by circumferential pressure into curious onion-like masses—the "*globes épidermiques*," "epithelial pearls," or "bird's-nest bodies" met with wherever excessive epidermis growth is in progress, but in singular and characteristic abundance in epithelioma (see Fig. 19, *a*, and Fig. 20, *a*)—or they swell up with colloid material (Fig. 19, *c*); but they seldom undergo much oily degeneration, save where inflammatory or ulcerative changes are actively at work. The cells further show a great tendency to cohere by their margins, as do normal epidermal cells, and sometimes present beautiful objects for examination with the higher powers, by dovetailing together by finely serrated edges, after the fashion of the upper cells of the healthy rete mucosum (see Fig. 19, *b*). In fact, the new growth seems to consist simply of masses of surface epithelium, which, instead of appearing above and between the papillæ, dip down amongst the connective tissue, and there actively multiplying and thriving as much from the unwonted supply of fluid

nourishment as from the absence of the desiccating process to which they are normally subjected as they are pushed on towards the surface of the body, form large tubular and

Fig. 19.

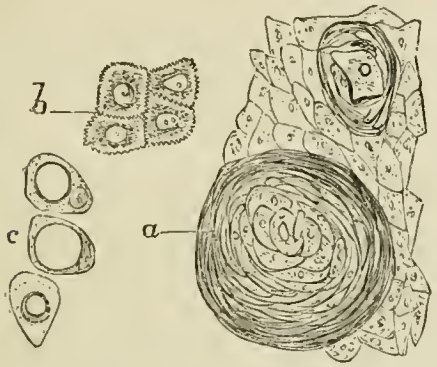

Fig. 19.—Elements from an epithelioma of the lip. Magnified 220 times. *a*, an epithelial pearl, showing the production of these bodies by the multiplication and subsequent flattening of squamous cells; *b*, serrated cells; *c*, cells containing colloid matter.

branching collections, capable of more prolific development the further they are removed from the surface, and at the same time more freely subjected to the risk of single cells being taken up and hurried away in the lymph- or blood-streams to form similar collections elsewhere.

This seems to be, indeed, what really happens in the formation of a primary epithelioma. Why this invasion of the subcutaneous tissues by epithelial elements takes place in certain cases, when all the physical conditions favourable to its production must be frequently present in any wart or condyloma, it is not easy to say; but there is nothing in the process, so far as we can observe it, to justify us in assuming a special condition of the blood as its determining cause, whilst the dispersion of the disease throughout the body—rarely considerable in its extent, seldom involving more than the nearest chain of lymphatic glands, and always presenting the same epidermis-like scales wherever the secondary growth springs up—is thoroughly and solely suggestive of transference of cells of the primary tumour and their multiplication in their new seats.

Thus, the one essential anatomical feature of epithelioma is *the presence of proliferating epidermal cells in abnormal situations.* So long as the change is limited to an excessive development of surface epithelium, with, it may be, considerable enlargement of the papillæ, the growth is a papilloma; or if the proliferation commence in a sebaceous gland, so long as the result is a mere accumulation of gland epithelium within the gland walls, this may go on to almost any extent, and be accompanied by secondary fatty changes, but the only issue will be a more or less inconvenient "atheromatous cyst"—both purely innocent formations. But once let the boundary be broken through, and the cells penetrate the deeper tissues, and lymphatic (or even vascular) infection may take place at any time—in all probability with a rapidity in proportion to the movement and moisture of the affected part;(a) and with such infection the growth passes at once from amongst the innocent tumours to the cancers.

Whilst the *cells* of an epithelioma, therefore, differ in a marked degree from those of a carcinoma, and by reason of their tendency to mutual cohesion are not nearly so liable to be carried off to distant regions, the *stroma* is equally to be distinguished from that of carcinoma. In Fig. 20, which represents an epitheliomatous infiltration of the muscular portion of the tongue, the large squamous cells which have penetrated from the dorsum are seen to lie in detached clusters in the midst of a fibro-corpuscular stroma, striped muscle-fibres appearing on either side. This stroma is here clearly derived from the interfibrillar connective tissue of the tongue, the invading epithelial growth being preceded by a small-celled infiltration, suggesting irritative hyperplasia of the connective-tissue nuclei—just such

Fig. 20.

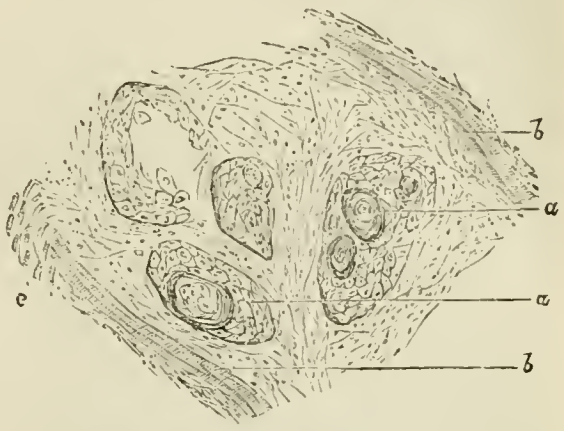

Fig. 20.—Section through an epithelioma of the tongue. Magnified about 40 times. *a*, clusters of squamous epithelium containing some "pearls," and surrounded by a fibro-corpuscular growth, furnished by the normal connective tissue of the part; *b*, striped muscular fibres; *c*, striped muscle divided transversely.

a structure as is to be met with in the neighbourhood of any active growth, and only to that limited extent deserving the name of a new formation.(b) Hence we have here nothing like so regular an alveolar fibroid stroma as supports the cells of a carcinoma, although the increased connective-tissue growth, with probably an undue vascular supply, occupies in epithelioma an analogous position to that structure.

The coarse characters of epithelioma, the thick, mushroom-like elevations, the indurated excavations, the slow but destructive march, and the scanty, perhaps fetid, discharge, as well as the common site—an old wart, scar, or edge of an ulcer, or, in healthy parts, specially the line of junction of skin and mucous membrane, as the lip or vulva—suffice to render the diagnosis of the disease generally easy, and they are too familiar to need description here. The cut surfaces of these growths yield but a scanty juice, and what does exude is thicker and more curdy or ground-rice-like than the thin, milky juice of carcinoma, and under the microscope the cell-forms are usually tolerably characteristic (Fig 21).

Fig. 21.

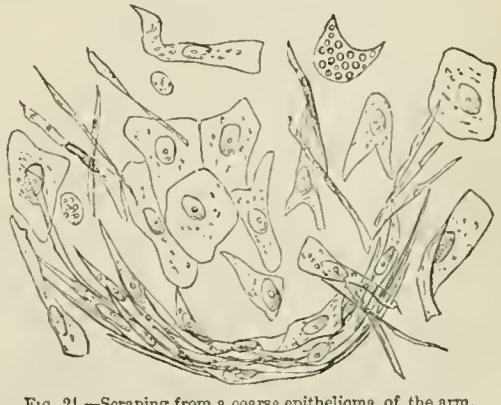

Fig. 21.—Scraping from a coarse epithelioma of the arm. Magnified 220 times.

Where similar changes affect such mucous surfaces as are clothed with columnar epithelium, the resulting new growth

(a) In a paper contributed to the St. Thomas's Hospital Reports for 1871 ("On the Therapeutical Importance of Recent Views of the Nature and Structure of Cancer") I have tabulated seventy-three cases of epithelioma recorded by me in the cancer tables of the Middlesex Hospital, with the object of setting forth this connexion which exists between the physical conditions of locality and the malignancy of the disease. It is there shown "that the cases showing contamination of the glands and other parts are precisely those in which the growth is subjected to the greatest amount of movement. Thus, in the lip, tongue, genitals, groin, hand, and heel, the glands were affected in from 50 to 100 per cent. of the whole number of cases; whilst the disease attacking the less movable parts of the face spread to the glands in a proportion of only 21·7 cases, and in the leg and scrotum remained absolutely local."

(b) It is interesting to note that, just as Cornil and Ranvier have described direct communications between the lymphatics and the stromal alveoli of carcinoma, so Köster states that the tubes of squamous epithelium which dip down from the surface into the deeper parts lie within lymphatic vessels. This is, however, an opinion which has not been at all generally accepted, and although it would certainly explain very simply those cases in which gland implication occurs, such extension of the disease is not nearly so constant nor so early as one would expect it to be did the first traces of the morbid infiltration bear such close relation to the lymphatic channels as Köster indicates.

presents a corresponding variety of appearances, the cells being mostly arranged in the same way, and bearing a like relation to the stroma of overgrown connective tissue. But from the peculiar cell-forms present in these cases, and the greater moisture and vascularity of the parts affected, both the superficial and the microscopic characters undergo considerable and striking modifications.

Such growths occur not infrequently in the stomach and intestines. Where they clearly originate in a proliferation of the lining cells of the tubular glands they are often called "adenoma"; but since secondary growths having the same structure are met with occasionally in the liver and elsewhere, and since the only difference between these tumours and those surface epitheliomata which take their rise in the sebaceous glands of the skin is based upon the distinct forms of the cells furnishing the starting-point of each, it seems inconvenient to make such 'adenomata" a special variety of new growth, and, with some pathologists, to speak of them as "adenoid carcinomata."

Rodent Cancer, as the well-known "rodent ulcer" was styled by the late Mr. C. H. Moore in his treatise on the subject, although, no doubt, sometimes presenting clinical features which sufficiently warrant its being classed amongst the cancers, yet does not seem to me to possess any properties, either clinical or anatomical, which justify its being placed in a distinct class by itself. The portion of Mr. Moore's book which deals with the histology of the subject is not characterised by the admirable clearness of the rest of the essay; but the want has been amply supplied by a paper in the last volume of the Pathological *Transactions* by Mr. Hulke. Mr. Hulke gives a lucid description of six cases of rodent ulcer, and subjoins beautiful drawings of the microscopical appearances present. In all of these instances the growth was the same—an infiltration of the irritated subcutaneous connective tissue with a small oval-cell growth, whose elements were exactly comparable to the cells of the rete mucosum of the skin, these cells being arranged in large masses or in smaller bud-like processes. It would hence appear that in these cases the new growth consisted of a proliferation and deep infiltration of the undermost cells of the epithelium. In examinations made by myself of instances of well-marked rodent ulcer, I have found, besides the cell-growth described by Mr. Hulke, more distinct evidences in some of the thicker parts of the edges of the ulcers of ordinary squamous-cell epithelioma, with even rough "bird's-nest" bodies (such as are described as occasionally present in Mr. Moore's work); and I am therefore inclined to group these "rodent ulcers" with the epitheliomata, explaining their very slow progress and comparative immunity from gland contamination by their situation—always to a great extent free from movement, moisture, or rich vascular supply.

TYPHOID FEVER.

By CHARLES ORTON, L.R.C.P. Edin.,
Hon. Medical Officer, North Staffordshire Infirmary.

The Ironmarket is a very wide street—one of the two principal streets in the borough of Newcastle-under-Lyme. It has a gentle rise from No. 1 to No. 10, and then descends rather abruptly. No. 1 is a corner house of three storeys and a cellar, but with "no back premises whatever."

No. 2, the house with which we have to deal, is a draper's shop of three storeys, with no entrance from the Ironmarket save through the shop. The courtyard, eight yards by four, is common to three houses, and contains one watercloset, also common—very. Besides the shop and show-room, immediately above there is a sitting-room, small and dark, opening into the kitchen and into the cellar, with one window looking into the yard and another with a prospect of tiles and a wall of an inn three to four feet distant. There are seven bedrooms—of the front attic I will say nothing; a second bedroom, ventilating into the yard, is just large enough to hold a bed and little else. The bedroom over the dark sitting-room is under six feet in height, and a back attic where the three assistants slept is immediately under the tiles and amongst the beams. It is about twelve feet long by nine broad, highest beam about six feet from the floor, and the top of the window about three feet and a half. I have little hesitation in calling it unsuitable as a sleeping apartment for three young men.

As the sanitary state of the premises of this part of the town will no doubt form a subject of inquiry by the local authorities I will not anticipate what may then be possibly found to be wrong, or what opinion may be formed as to the probable cause of the outbreak.

Of the nine inmates (ten with the child) of this house, all were young, and all have been stricken down with fever; in all probability it has been typhoid, but as can easily be imagined I was only too anxious to get rid of cases from such a pest-house. I therefore cleared them off as soon as possible before symptoms developed, but in several cases—I believe in all—too late. At present, however, I have only forwarded reports of the three cases which have been under my care throughout the attack. The history of the other cases I hope, through the kindness of several Medical brethren, to be able to send you hereafter.

To this house I was called on the evening of December 10, 1871, to see Mrs. D., aged 26, naturally rather a delicate person. I found her suffering from bronchitis, constantly coughing, with little or no expectoration, high temperature, headache, and feeble. She had been assiduously nursing her child, who had had bronchitis, and who had only recovered a week before. She had, therefore, been pulled down by loss of rest and anxiety. I ordered poultices to the chest, back and front, and prescribed bicarbonate of potash and vin. ipecac. On the 12th the chest symptoms were much relieved, but the feverish symptoms increased. Soon tympanitis, though slight, set in, and the characteristic typhoid spots appeared. The bronchitis ceased, profuse perspirations supervened, small quick pulse, low muttering delirium, and diarrhœa marked the progress of this case to its fatal termination on the night of December 21. On the evening of the 21st the temperature was 103° F. On the 20th the brandy-and-milk was not administered, as it should have been, for the stated reason that it made Mrs. D. conscious, so that she could hear the ravings of her husband.

On December 16, 1871, Mr. D. took to his bed. He had been struggling to hold up for some days. On the 20th the delirium which had been gradually coming on became so violent that he tried to jump through the window, and partially succeeded—would undoubtedly have done so had it not been for the courage of the nurse, who resolutely held to him, while a few others as resolutely stuck to the door on the outside. On my arrival I chloroformed him and gave him thirty drops of liq. opii, and on leaving him after a few hours I gave him a grain of powdered opium. During twenty-four hours he took four grains of powdered opium and fifty or sixty drops of liq. opii. He refused resolutely to take anything for upwards of two days, but then took milk freely. Diarrhœa in this case was not severe, but took place without the patient's knowledge for some days. The temperature never rose above 105·5°. He became fairly conscious about December 26 or 27, and was informed in a day or two afterwards by the minister of his wife's death and burial. This of course caused great depression, and brandy was administered occasionally until January 20, 1872, on which day he was removed to another house. He has only taken one half-pint of brandy and a bottle of sherry. I prescribed chlorate of potash and hydrochloric acid from the commencement, milk, ice, and opiate draughts, with the effect of which I was highly pleased.

Mary R., aged 12, servant. Left the house ill on December 14, 1871, and was treated in her own home in Newcastle. During the first fortnight she took nothing but one pint of milk and six teaspoonfuls of brandy per day; since then, milk, tea, and half a pint of brandy per week. I gave her but two bottles of medicine—pot. chlor. and acid. hydrochlor. dil. when diarrhœa was rather severe.

On January 17, 1872, when I last saw her, she was downstairs for the first time, fairly convalescent, still persevering with her milk-and-brandy—half a pint or rather less of the latter per week. I did not interfere, being content to leave well alone. With regard to stimulants,(a) though I will not plead guilty to having ordered them indiscriminately, I have taken, and do now take, in young people especially, the inclination of the patients as a guide; and if they feel the better for the administration of stimulants, I continue the administration thereof, and if they do not I have no hesitation in throwing them over, honestly believing that many, very many, cases will do as well and better without.

For the history of the cases I now forward I am indebted to my Medical brethren whose names are mentioned, and to whom I beg to express my thanks for their kindness.

G. A. Craig, M.B., of Birmingham, writes January 22, 1872, that he is attending Miss N., who is suffering from enteric fever. At one time hæmorrhage from the nose was so

(a) How interesting it would be to know how many examples of drinking habits had been "formed" purely from Medical advice. I have never known a case occur in my practice.

violent that she was in great danger of sinking, but is now recovering. Temperature reached 103°. Absence of diarrhœa throughout. No other cases have occurred either in the house or neighbourhood.

Mr. B. H. Herbert, of Uttoxeter, says (January 23, 1872): "The case of S. H., which you allude to, is undoubtedly enteric fever. He first came under my care a fortnight ago, suffering from headache and weariness, pulse 120, heat of skin—for the first week the temperature was over 103°—some pain in the bowels, with tympanitis and diarrhœa, very little delirium, and no well-defined rash. Progressing favourably."

I am now attending also Mrs. D., aged 62, with fever—temperature over 102°, pulse 100, tongue dry, slight delirium, tympanitis, but no diarrhœa—but having only seen the case once, I do not like to give a decided opinion as to its being strictly of the enteric type.

Dr. Greatrex, of Kidsgrove, on January 19, 1872, sends the following remarks of the case of Mr. H.:—"Every symptom of typhoid was present. Delirious the greater part of the time. He went sixty hours without any sleep, and then slept four hours and awoke refreshed, after a dose of the syrup of hydrate of chloral. He rallied for a couple of days and then fell off again. The diarrhœa was not so bad as it generally is in severe cases. The lower jaw was spasmodically opened and closed for an hour at a time. The arms were also convulsed. He was always delicate from childhood, and some years ago had convulsions, when the same spasmodic opening and shutting of the jaw was a most distressing symptom." This case ended fatally ten days after his return home.

Mr. B. is still suffering from febricula, but is getting better.

Dr. Gooday, of this town, attended Mary H., servant, aged 20. I also saw her. Though she was long ill, Dr. Gooday regarded it as a mild case of typhoid fever. She has now recovered.

Concerning the case of Mrs. D., senior, Mr. Herbert wrote to me on January 30 to inform me of her death. Tympanitis continued, but no diarrhœa. Extensive congestion of the posterior portions of both lungs. The bronchi afterwards became implicated. From the first the throat presented a diphtheritic appearance, and in all probability the trachea contained a similar kind of exudation. The temperature ranged between 100⅗° and 104°. Pulse from 100 to 140. It was no doubt enteric fever.

Mr. S. H. is progressing favourably. No other cases have occurred.

From the Medical attendant of Miss. T., sister to Mrs. D., jun., I have not heard at present, but from her friends I hear that she has had enteric fever, and is recovering.

The order in which they were taken ill was as follows:—

1. Mary H., aged 20, servant, left on December 5, 1871. Recovered.
2. Mary R., aged 12, servant, left on December 8, 1871. Recovered.
3. Mrs. D., aged 26, to whom I was called in on December 10, 1871. Died.
4. Mr. D., aged 26, taken ill about December 10, 1871. Recovered.
5. Miss N., aged 18, milliner, left on December 18, 1871. Recovered.
6. Mr. B., aged 17, assistant, left on December 18, 1871. Recovered.
7. Mr. H., aged 16, assistant, left on December 22, 1871. Died.
8. Miss T., aged about 22, sister of Mrs. D., jun., left on December 22, 1871. Recovered.
9. Mr. S. H., aged 16, assistant, left on January 6, 1872. Recovered. Mr. H. had, however, been complaining of feeling ill for a week or ten days before this.
10. Mrs. D., aged 62, mother of Mr. D., left on January 16, 1872. Died.

The latter case came to this fatal spot on December 12, and was very little in either sick room, principally in the kitchen. Thus we see that the whole of the usual residents in this house and two visitors have been stricken down by fever. No other cases have occurred in the adjoining houses or neighbourhood, nor, so far as I can hear, in any of the localities where the other cases were sent.

In the present stage of our belief as to the cause of typhoid fever, I think we shall be clearly able to trace the outbreak in this instance to sewage emanations. I have before mentioned how close, ill-ventilated, and confined were the rooms of this house. On examining the drains, it was found that the main drain from the house and from the water-closets passed under the floor of the shop—not sufficiently low to drain the cellars, as the main sewer in the Ironmarket is not deep enough to do so. Therefore, if any leakage took place at any time there was plenty of room to hoard it; if merely escape of gases, the inmates of the shop must suffer from the stench, and this was by no means seldom—sometimes even, I am told, unbearable. In the back kitchen is a water-closet, unused for some time past, but connected with the sewer, said to be well trapped; and above this kitchen is a small store-room, where some portion of the food of the establishment was kept; and above, too, was the sleeping apartment of the three assistants. Thus through the shop and through the kitchen could these poisonous emanations have reached the inmates. The water used was good, conducted through pipes from a distance of about ten miles. There had been no case of typhoid in the town that I can hear of; no death from it registered for some time past. The Sanitary Act, like many other Acts, no doubt took up an immense amount of the time of the members of both Houses to make it law. Having become law, members immediately proceeded to pass other Acts, leaving this to become almost useless. Would it not be wise of our legislators to inquire sometimes whether the provisions of an Act are put into force? In many, if not most small towns, the Sanitary Act is next-door neighbour to a dead letter.

Newcastle-under-Lyme.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

ABSTRACT OF A CLINICAL LECTURE ON ERYTHEMATOUS LUPUS.

By ROBERT LIVEING, M.D., Physician to the Hospital.

GENTLEMEN,—I propose to direct your attention this afternoon to an interesting case of erythematous lupus now in our Hospital; but before doing so I shall take this opportunity of making a few introductory remarks on lupus generally, in order to point out with greater clearness the distinctive characters of the erythematous form.

Lupus may be defined to be a local disease, chiefly attacking the skin, and especially the skin of the face. It consists essentially in an infiltration of the cutis, with a peculiar cell formation, which undergoes degeneration, and leads subsequently to the destruction of the invaded tissue and the production of a permanent cicatrix. Of the exciting causes of lupus we know little or nothing—it is never contagious, and very seldom hereditary, though we may admit that a scrofulous diathesis is a predisposing cause of its development.

There are several modes of classifying or distinguishing the different varieties of this malady. The commonest, simplest, and perhaps the most scientific is to recognise only two classes—(1) Lupus vulgaris and (2) Lupus erythematosus. Historically, also, this division is interesting, inasmuch as Lupus vulgaris was accurately described long ago by Willan, while the true nature of Lupus erythematosus was first recognised in our own time by Cazenove.

Now, although this division has the merit of simplicity, it is not quite sufficient for descriptive purposes. A disease which assumes such varied forms as Lupus vulgaris requires some further subdivision to aid and give method to our descriptions. Hence we may conveniently adopt the following nomenclature, and classify the different forms of lupus under the following heads:—(1) Lupus tuberculosus; (2) Lupus vulgaris exedens; (3) Lupus vulgaris non-exedens; (4) Lupus syphiliticus; (5) Lupus erythematosus.

I am well aware of many defects in this mode of classification; but, on the whole, I believe it to be the most convenient that we can at present adopt. Under one or other of these heads it is quite possible to arrange all the varieties of lupus commonly met with. I must warn you, however, against the mistake of supposing that there is any essential difference between these varieties. They one and all possess in common the distinctive characters of true lupus.

Now let me say a few words in explanation of the names I have adopted.

Tubercular lupus is the *lupus of childhood*, though not strictly confined to the very young. It shows itself in the form of small nodules or tubercles, appearing on the face, about the size of a split pea or larger. These little elevations are elastic, painless, often of a bluish hue, rather vascular, and with little tendency to spread or ulcerate unless the disease be injudi-

ciously treated. Many of you may remember a little girl who was for some time under my care with this variety of lupus, and who gradually improved under cod-liver oil and mild local treatment. Hebra, I believe, uses the term "tubercular lupus" in a less restricted sense.

Lupus exedens is the *lupus of young adult life*, and is, unfortunately, the most common kind. It has the well-known characteristic feature of ulcerating deeply into the cutaneous and neighbouring tissues, and produces the most frightful disfigurement, while it heals with thick scars, like those of a burn. This form is most common between puberty and 25.

The name lupus non-exedens is a very inappropriate one as applied to any particular variety, and yet it is one that we can hardly entirely dispense with. It is generally used to indicate certain forms of lupus vulgaris which do not tend to produce open sores or ulcerate deeply into the tissues invaded. It may be said to occupy a position intermediate in its anatomical characters between lupus exedens and lupus erythematosus.

By syphilitic lupus I do not mean a syphilitic ulceration resembling lupus, but a true lupus which is modified in its characters and appearance by a *constitutional* syphilitic taint. It is generally, though not always severe, and spreads deeply into the subcutaneous tissues. It is important to distinguish this form of lupus from the more common syphilitic ulceration of the nose, inasmuch as the latter is more rapid in its progress, and far more amenable to treatment. Besides these four principal names that I have used for the purpose of classification, there are many other terms applied to the disease under discussion—terms all more or less useful for the purposes of description, but which, for the sake of perspicuity, I have avoided—such, for example, as "serpiginosus," "hypertrophicus." Again, we have the impetiginous lupus of Mr. Startin, and the lupus psoriasis of Mr. Hutchinson—the latter a non-exedent form of the disease, which appears in scattered patches about the body, and has a close superficial resemblance to psoriasis. All these and the other forms to which I have referred may be considered as varieties of lupus vulgaris.

In typical erythematous lupus we recognise some very distinctive features, of which the most important are the following:—In the first place it is the *lupus of middle age;* (2) it is much more common in women than in men; (3) it begins in the sebaceous glands and hair follicles; (4) it spreads slowly, and has little tendency to form open ulcers; (5) it attacks chiefly the papillary layer of the skin, and leaves smooth white scars, which are covered with cuticle, and are neither hard nor puckered.

I will now read you a brief history of the case before us (taken by Mr. Charlesworth):—C. N., aged 54, unmarried, of a consumptive family. When aged about 16 some of the early symptoms of phthisis developed, and she was sent to the Isle of Wight, where she recovered. Since that time she has enjoyed pretty good general health, with the exception of a severe attack of ague while living in a fen district. There is no history of syphilis, hæmorrhoids, or uterine disorders. The skin disease from which she now suffers began about ten years ago by the formation of a small reddish dry patch on the back of the right hand, of about the size of a florin; subsequently two similar patches formed on the left upper arm, and one on the right thigh; all these patches gave rise to considerable itching. The disease on the head began about six or seven years ago, and at the present time it affects the scalp, forehead, and face; on the latter it is arranged in a symmetrical manner somewhat resembling a butterfly in shape. The lower margins of both orbits, the fore part of the nose, the upper lip and mouth, are free. The skin over the scalp is freely movable, and the eruption in this situation is of a glistening appearance, and has a red base covered with thin white scales; scattered here and there are white, smooth, even scars. Over the forehead are some dry superficial scales. The hair over the part affected is almost destroyed, but nowhere is the sensibility of the skin impaired. The facial eruption, which is the most recent, is of a much brighter colour, with irregular, well-defined margins, studded with small tubercles, some of which are isolated; it seems in a more active condition. The right upper eyelid is healthy, while the skin of the left is affected and a little contracted at the inner side, so as to prevent the eyeball being properly covered by the lid. The whole surface of the eruption is dry, attended with little pain, but is very irritable.

Allow me now to call your attention to the leading features of this case, and the characters by which we arrive at a diagnosis.

Firstly, then, our patient is of the female sex, and I may remind you that erythematous lupus is far more common in women than in men. Mr. Naylor, indeed, estimates the proportion as about eight or ten to one. Again, you will remember that this variety is essentially the *lupus of middle age;* and in accordance with this view we find in the case before us that the age of 40 was attained before the disease made its appearance. It is true that Dr. T. Fox states (at page 206 of his work on "Skin Diseases") that erythematous lupus "mostly attacks children, and especially those of the lower orders." It is, however, more than possible that Dr. Fox would at the present time modify this statement; you must not, therefore, attach too much importance to it. Neumann justly remarks that the disease "is rare under the age of 20."

Last, but not least, we have the history and character of the eruption. It is of about ten years' standing, and began by the formation of a red erythematous patch on the back of the hand, and another, a little latter, on the forehead. The former of these has remained almost stationary since its first appearance, and contrasts remarkably with the latter, which has gradually spread with perfect symmetry over the central part of the scalp, producing baldness, and leaving perfectly smooth white scars, which are neither raised, puckered, nor depressed; the skin retains its elasticity, and the scalp is movable. The disease has spread downwards as well as upwards; it has invaded the bridge of the nose, and then spread laterally over both cheeks, always keeping a perfectly symmetrical course, so that the two sides of the face are equally affected, and thus a butterfly-shaped patch is formed, leaving the skin under the eyes, on the forepart of the nose, and around the mouth perfectly healthy.

This gradual and *symmetrical* spreading of the disease is very characteristic of this variety. Again, note especially the well-defined and slightly raised margin of the patch, the colours of which contrast remarkably with the healthy skin around, while here and there a tiny tubercle springs up just beyond it, showing distinctly the direction in which the disease is progressing—namely, at its circumference.

The whole patch has a red base, and is sparingly covered with thin white and dry scales. Nowhere has there been open ulceration except on the right cheek, which shows a few white lines of scars, evidently caused by the healing of small ulcers, the possible result of too vigorous local treatment.

These patches are nearly painless, but are at times attended with severe itching, which has been noticed as a frequent symptom in erythematous lupus. The sense of touch, as far as we can determine, remains as perfect as ever. All this is in accordance with our usual experience of the malady. The exceptional feature, however, in this instance, is the large extent of surface involved in the course of ten years. We may, indeed, look upon the case as intermediate between lupus vulgaris non-exedens and lupus erythematosus, but approaching more nearly to the latter, though, like the inhabitant of a border-land, partaking of the characters of both races.

We may ask, Is the disease in this instance modified by any syphilitic taint? In reply, I would merely remark that the patient lost her teeth at an early age, and that we have no history of congenital syphilis to assist us in arriving at a positive conclusion on this point.

I will now direct your attention to the morbid anatomy of this disease. The earliest indication of a pathological process going on in the skin is the appearance of a patch of erythema, which is not at first very persistent. After a time we find that the walls of the sebaceous glands of the skin affected become thickened with fibrous tissue and cells, and their ducts plugged with altered sebum of dark-greenish colour, producing a peculiar and characteristic dotted appearance. (Very well shown in this drawing of Hebra's.)

Similar changes occur in the hair follicles, and, as a consequence, baldness is produced. The papillæ are also invaded, and are said by Neumann to be immensely enlarged. The new cell-growth does not generally extend into the deeper layers of the corium. As a subsequent change, the sebaceous glands and the pigmentary layer of the skin are entirely destroyed, and we have produced the well-known smooth white scars which are plainly seen on the scalp of our patient. In some very mild cases the scar left is so slight as to be quite imperceptible; these cases are, however, exceptional.

The diagnosis of erythematous lupus, except in its earliest stage, is not generally difficult, though if hastily examined it might be mistaken for a patch of dry scaly eczema or psoriasis, especially if, as sometimes happens, it is thickly covered with white scales. To assist our diagnosis we must bear in mind the appearance of the erythematous patch, with its well-defined margin and red base, the comparatively small extent and slow progress of the disease, the history of the case, the part affected, and, above all, the fact that neither eczema nor

psoriasis leave scars or produce the peculiar alterations in the function and structure of the sebaceous glands which are characteristic of erythematous lupus.

Prognosis.—The prognosis is in the case before us, I need hardly say, unfavourable, as the disease is of long standing, and has made great progress.

Treatment.—With regard to the treatment of this most obstinate malady I have little that is satisfactory to tell you. Nevertheless, it is quite certain that under judicious management the progress of many cases is arrested which would otherwise only pass from bad to worse. Our first care must always be not to do harm; for it is a very easy matter, when strong caustics are used, to leave our mark, and produce a severe scar where nature would have left but a smooth and slight one. In addition, we should always bear in mind that erythematosus, in common with most other kinds of lupus, is always influenced unfavourably by exposure.

Of the many remedies that have been recommended, not one can be said to produce with certainty a marked effect on the progress of the disease. Amongst the most useful may be mentioned cod-liver oil, arsenic, and small doses of perchloride of mercury, and perhaps the most generally useful of all—viz., combinations of the iodine and bromine salts. Our patient is at the present time taking, by Mr. Nunn's advice, the Woodhall bromo-iodine water, from the well-known Lincolnshire spring, which has proved in his hands a successful remedy in more than one case of lupus.

In choosing local applications you must beware of strong caustics. If they are used at all, they should be applied with great care, and only along the border of the lupus patch. Of milder remedies, blistering is one of the most useful, especially if it is combined with other treatment, such as the use of a weak nitric acid lotion, or the application of some form of tar. Hebra strongly recommends a plan by friction with soft soap, and the occasional use of soft soap plasters. The application of mercurial plaster is, perhaps, more generally useful than any other local remedy. You must, however, be prepared to find that the treatment which succeeds in one case may be unsuccessful in another, and that in many cases you can only hope to palliate or relieve the disease without producing a permanent cure.

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Medical Times and Gazette.

SATURDAY, APRIL 20, 1872.

THE ROYAL ORTHOPÆDIC HOSPITAL.

We understand that at the Special Court of Governors of this Hospital held on Monday, the 8th inst., Lord Ebury expressed his regret that he could not stay to second Lord Abinger's motion, because he had to take the chair at a meeting at another Hospital, where similar differences had arisen. We trust that his Lordship's meeting went off more happily than did the one at the Royal Orthopædic Hospital, and that voters were not manufactured for it, as they were for the one he left. But in the letter which Mr. Brodhurst did us the honour to address to us last week he said, "Prior to most of the annual and special courts an active canvass for new governors has taken place—a practice which, it is well known, prevails in almost every institution in which there are pending existing questions." If by this statement Mr. Brodhurst means that at most Hospitals the laws or by-laws allow governors to vote at meetings, though they have only just become governors, we must take leave to doubt its accuracy. Our impression is that, as a rule, no governor can vote at meetings unless he has been a governor for some months. Undoubtedly there are exceptions, but we certainly have believed that, as a general rule, some care was thus taken to prevent meetings of governors from being swamped by new votes created for a special purpose. If we are wrong, and Mr. Brodhurst is right, it is high time that all governors really interested in the wellbeing of the institutions they support should see that their laws are revised on this point. No Medical officer is secure, and no institution can work well and safely, where such a power of making immediately efficient votes exists. Mr. Brodhurst says, "prior to most of the annual and special courts" the active canvass for new governors has taken place—which may mean, we suppose, that new governors are specially canvassed for only for matters of general business and questions of general management; and, indeed, we have heard that even at the Royal Orthopædic Hospital newly made governors do not vote at elections of Medical officers—so gross an abuse of the power of the purse not being allowed even there. A moment's thought and consideration should suffice to show anyone that, even with such limitation, the rule must be a bad one, and that the power it gives might be used to support any kind of abuse and ill-management, while the occurrences at the Royal Orthopædic Hospital have proved that, if it may not be used to elect Medical officers, it can be used to get rid of them, or to convert an Assistant-Surgeon into a full Surgeon without his having to face the usual ordeal of an election. If it is true that "in almost every institution in which there are pending existing questions" the practice prevails of making faggot-votes, of making instantaneously voting governors, at a guinea a piece, more or less, some good may come of the occurrences at that institution, for surely such a power cannot be allowed to exist after it has been shown to what purposes it may be put. Such a law is made, no doubt, with the idea that it may bring in funds to an institution, and some time may pass before its power for evil is shown; but that once proved, no excuse can be accepted for allowing it to remain. The governors of the Royal Orthopædic Hospital must, if they wish that institution to prosper, see to this and to other evils, of the existence of which so much has been heard of late. We do not propose to enter here into the question of the general management or ill-management of the institution; but, did we wish to do so, we could hardly desire better proofs of the need of thorough investigation and reform than may be gathered from the speech made in defence of the Committee by their deputy chairman. Meanwhile, let us suggest to gentlemen who may be feeling disposed to find fault with the present Senior Surgeon that they might consider whether they ought not rather to pity him. Is he not evidently the victim of a bad law, and of over-zealous and enthusiastic friends?

Who can suppose for a moment that a man of his standing and position in the Profession would willingly or wilfully make, or cause to be made, use of votes to work such results as of necessity followed the carrying the report of the Committee of the Royal Orthopædic Hospital? But if the laws of the Hospital allowed such votes to be made, how could he, an officer of the Hospital, prevent it? And if people were so thoughtless as to send their names and subscriptions to him, how could he refuse to transmit them to the Secretary? Was it for him to place any impediments in the way of those who desired to support the institution? Even Lord Abinger does

not deny that the proceedings were legal, but he asks, "Was such conduct loyal?" Loyal to whom? some may inquire. Is not an officer of an institution bound to be loyal to its committee? The late House-Surgeon, Dr. Bourne, chose to be loyal—at least, no doubt he thought so—to his patients rather than to the Committee; and he fell. Messrs. Tamplin and Adams failed, say the Committee, in loyalty to them; and Messrs. Tamplin and Adams have fallen. One of the staff has observed the laws of the institution, and been loyal to the Committee, and from being Assistant-Surgeon he has become Senior Surgeon. But shall he be blamed therefor? Has he not said that he "is sorry for the result of the annual meeting"? While laws exist, are they not to be obeyed, whether they be good or bad? If they make sorry work, shall not the governors who made them or suffer them to exist be blamed, rather than an unfortunate man who may seem to gain by the sorry work?

A GLIMPSE AT ITALIAN MIDWIFERY.

In another column we present our readers with a brief abstract of a work by Dr. Monteverdi (*Anglicè*, Dr. Greenhill), of Cremona, on the action of quinine and other preparations of cinchona on the organs supplied with unstriped muscles, and especially the womb. What we have quoted will no doubt be carefully considered by the Practitioner. In this place we cannot refrain from noticing the curious glimpses which Dr. Monteverdi's book gives of the actual practice of midwifery in Italy at the present time. We may observe in passing that Dr. Monteverdi is evidently a man of scholarly habits and great information, well acquainted with the writings of English and French Physicians from Sydenham and Morton down to West, Barnes, and Trousseau.

Let us take case the first of the cases which illustrate the efficacy of sulphate of quinine as a substitute for the ergot. Louisa Regonelli, aged 38, a seamstress, was in her first labour attended by a midwife, who on the *first* day had her bled, and on the *second* gave a dose of ergot. (We put the days in italics to make the exact lapse of time more evident.) These measures failed to finish the labour, and so, as the pains were becoming more languid, a Surgeon-accoucheur was sent for. Dr. Monteverdi, being summoned that night, made out that the cause of the delay was only that the pains were infrequent, short, very weak, and unable to move the head of the child, which was impacted in the pelvic cavity. The patient, who was easy, tranquil, and in excellent spirits, received with satisfaction the Doctor's announcement that he should wait till morning before taking the determination to relieve her, in case the labour should not be finished of itself ere then. On the morning of the *third* day the fœtal head was found in the first position, the pains altogether languid; and so, with the consent of the excellent Dr. Anselmi, it was determined to extract the fœtus with the forceps, it being deemed useless and hurtful to give a second dose of ergot, for the womb was contracted and painful on pressure. So the forceps was used, and a full-term fœtus, well developed and already dead, was extracted.

The placenta was not extracted immediately after the operation, says Dr. Monteverdi, because the patient was exhausted, the womb sufficiently contracted, and there was no urgent symptom demanding it. So thirty-six hours passed, although the midwife pulled from time to time at the umbilical cord, and practised injections after the manner of Mojon. This must bring us to the *fifth* day. "In this state of things," says Dr. Monteverdi, "judging it dangerous to extract the placenta with the hand—forasmuch as the umbilical cord had been torn in the preceding attempts, so that there was no guide for the hand—the determination was come to to administer some remedy to excite the contractions of the womb." So the sulphate of quinine was given; but as this was the first time of trial in such a case, the Doctor prudently combined it with the ergot, and divided a gramme of each into four powders, one to be taken every hour. Under the use of these substances some slight uterine contractions ensued, by which some fragments of placenta and clots of blood were expelled. "Having seen this happy result," says Dr. Monteverdi, "and finding the patient in a state of sensible amelioration, I administered on the following day (the *sixth*) a gramme of sulphate of quinine, of which a third part was to be taken every hour. Under the action of this drug the contractions of the womb were quickly renewed, and the remaining placenta separated and extracted easily by two fingers from the vagina, though it was in a state of incipient putrefaction. The dribbling of fetid matters, which had lasted two days, now ceased, the lochia appeared, and the patient left her bed in twenty days from the birth.

It may not be uninteresting to our Italian brethren if we point out the criticisms which arise spontaneously in the English mind on the perusal of these interesting details. Perhaps it is that the English are always in a hurry—they think illness the worst possible waste of time—and hence it is the custom, especially in parturition, to incur no unavoidable delay, and to treat the patient *cito*, as well as *tuto et jucunde*. Thus we have little doubt that if an English midwife had bled a woman of 38 in her first labour (without some special reason, of which a midwife would not be a fit judge) she would have been sent away with a flea in her ear; and if the ergot had been judged proper on the second day, it would have been supplemented with *brodo* and *vino generoso*. Then, when the Surgeon was called in at the end of the second day, he probably would have relieved the patient with his forceps at once, and so peradventure would have saved the child's life; for, after all, what is the use of obstetric science that only brings forth a stillborn child? Immediately after this, in Northern Europe, the placenta would have been gently extracted at once; for we believe that in this case, like many others, the longer you wait the worse the task becomes. Moreover, with the left hand steadying the fundus uteri from without, the Northern obstetrician would no more have hesitated to remove the placenta with his hand than he would have let it remain for the *mammana* to tug at the rotten cord. Thus, in all probability, without a grain of medicine, and without the risk attending the retention of a putrid placenta, the patient and Doctor would have been spared four days of suffering and fatigue and many others of weakness and danger.

In another case, of a seamstress, aged 23, labour began at the end of her first pregnancy with pains weak and slow. So the first day passed. Next day things were in the same state, except that the waters had escaped; so the midwife ordered her to be bled. But, says Dr. Monteverdi, this, instead of exciting, slackened the pains, which became more languid, and ceased towards evening. "Called to this young wife," says Dr. Monteverdi, "I ascertained by examination that the neck of the womb was perfectly dilated, and the head, presenting with the vertex, already descended into the lesser pelvis. In this condition it was clear that the birth would be safely and naturally effected when, with the return of uterine contractions, there should be sufficiently strong and prolonged pains. And forasmuch as the weak pulse pointed to a state of slight prostration of the forces, which had caused cessation of the uterine contractions, so I ordered the patient to take during the night some cups of broth and generous wine." In the morning—*i.e.*, forty-eight hours from the commencement of labour—Dr. Monteverdi found that the patient had slept some hours, and passed a quiet night, and the pains had returned, albeit very feeble and short. Then, he says, "finding the head in the same position, and the pains utterly insufficient to move it, I determined to give sulphate of quinine, instead of ergot, to reanimate the uterine contractions." So he gave twenty-five centigrammes (nearly four grains) of the sulphate. In an hour the pains

were a little more forcible, so a second dose was given; and in another hour a third; after which a well-developed living child was born, and followed by the placenta, the uterus contracting itself into the globe of safety (*globo di sicurezza*).

There are many points about these cases which seem strange to English eyes. Bleeding at the beginning of labour used to be performed here, and sometimes is so now, in the case of women of rustic habit, rigid fibre, and intensely violent and painful uterine contraction; although at the present day cooling and soothing remedies are far more frequently used. But if a midwife were to bleed a woman on the second day of labour, because the pains were few and feeble, she would run the risk of being sent to a lunatic asylum. We recognise the great dialectic ability and logical precision with which Dr. Monteverdi made and formulated his diagnosis and prognosis at his first visit, and we suspect that one of our working English Doctors would have turned up his sleeves and applied the forceps sooner than he could have reduced his thoughts into so symmetrical a shape. But every nation has virtues and defects of its own, and we are glad to know what others do, so that we may improve ourselves.

PROFESSOR HENDERSON, OF EDINBURGH.

THERE has recently passed away from among us a man of mark in his way, whose life is in many ways instructive. Dr. William Henderson was the son of the Sheriff Substitute of Caithness—that is to say, of the highest judicial authority resident in the county. He was born in 1810, and had his education in Edinburgh, partly at the High School, and afterwards at the University, where he also studied Medicine. He was an apprentice to Mr. Liston, and graduated in 1831. After graduating he spent two years in the Medical schools on the Continent—Paris, Vienna, Berlin—and returned to practise his Profession in Edinburgh a well-grounded man. Very early in his career he was appointed Physician to the Fever Hospital, and a little later to the Royal Infirmary, Edinburgh; and in 1842, after having been Pathologist to the Infirmary for some years, he was appointed Professor of General Pathology in the University. For two years longer he held on his way, working hard, and doing good work—investigating disease, and lecturing with much success. He was, indeed, the first to point out the distinction between typhus fever and relapsing fever—an epidemic of the latter raging in Edinburgh in 1843. But in 1844 the brilliant and promising career was abruptly eclipsed—Dr. Henderson embraced homœopathy; and though he continued to hold his chair, which was *ad vitam aut culpam*, he was compelled to relinquish his post of Physician to the Royal Infirmary, and his public career may be said to have ended; for, though he continued to lecture, he ceased to teach and to write, and though his private practice very greatly increased, he lost the position he had held in public estimation. Fierce were the debates of that time, but out of them all Henderson came with an unscathed personal character, if with a sad loss of Professional reputation for acumen; but he has ever been looked upon as the best of the homœopaths, and an honest man.

Sir James Simpson used to tell a curious story of Henderson's conversion to homœopathy. He had been induced by (it is said) Abercrombie to investigate the subject, and he had made certain researches which he mentioned in public as having struck him. Simpson had some time before that received from a well-known homœopathic chemist a case containing a set of phials filled with globules, which he had never used. These, he said, he should be glad to hand over to Henderson, and Henderson with pleasure accepted them. He made use of them, and was so struck with their effects, that he declared himself convinced of the truth of the homœopathic doctrines. Unfortunately, it turned out too late that he had unwittingly deceived himself; for the case with its phials had long been a plaything for Simpson's children, who used to empty out the little globules into heaps, and fill the phials from these indiscriminately. We need hardly say that this was not known to Simpson when he gave Henderson the case, but it became known to him after, and he made Henderson aware of it. But Henderson had gone too far to recede, even if he desired to do so, and he became a declared practitioner of homœopathy.

The chair of General Pathology was strenuously assailed by such men as Syme and Christison, but it remains to this day to be filled by a worthy occupant—Professor Sanders. Of Henderson in this chair not much is to be said: his lectures were good, even eloquent; but they utterly failed to impress his hearers. He had no strong views to express, no clear and decided opinions of his own to teach. He could tell all about other people's views, but he left Hospital practice very much to have any of his own. Of all the teachers in the University he was the one whose individuality is most shadowy in the minds of his pupils, though had he continued to tread the path of 1842-44 things might have been very different.

In the winter of 1868 he suffered a good deal from obscure pains in the chest, which he attributed to rheumatism of the costal cartilages, but which were in reality the first warnings of the disease which has removed from among us a valuable life.

In the spring of 1869 he himself discovered the existence of an aneurism of the aorta. After submitting himself to an examination by Dr. Begbie, who was then alive, he resolved to retire from practice, which he did on the first day of June of that year—the last time he visited a patient.

From the spring of 1869 till July, 1870, he was confined in great measure to the house, but was able up to that time to see a few patients at his own house. From July, 1870, till near the close of 1871 he was confined entirely to his bed, but after that date was able to spend part of the day in the drawing-room. About the middle of last month cough came on, accompanied by purulent bloody expectoration. A few days before his death this ceased, but there remained great difficulty of breathing, and finally orthopnœa. On the morning of April 1 he became unconscious, and at twenty minutes to eleven he passed away.

His life is instructive: it teaches that money is not everything, and is not to be compared with the loss of Professional estimation.

MEDICINE IN VICTORIA.

WHATEVER may be the case with other professions and callings, it is pretty certain that Medicine does not occupy an enviable position in Victoria. More especially is this the case in Melbourne, where quarrels, lawsuits, and criminal proceedings with reference to Medical Practitioners take place. The disputes which arise—whether it be with regard to a "discovery," a point of practice, or a question of etiquette—are carried on with a vehemence and asperity altogether unknown in the mother country. What, for instance, could have been fiercer and more unwarrantable than the attacks made upon Dr. Halford's "cure of snake-bite"?—what exceed in badness of spirit the evidence lately given on several trials, both in the civil and criminal courts? The question now attracting the attention of the Profession and laity of Melbourne is the formation of a committee by Government for "investigating the subject of diphtheria." Here is the description the *Argus* gives of three out of four of these committeemen—Dr. M'Crea, from his official position, being the fourth, and beyond cavil or objection:—"A homœopath, who even as a disciple of that schismatic school is not illustrious; a Geelong Surgical celebrity, who is not famous for the cultivation of Professional amenities; and a suburban Practitioner, who is known principally to the public as a justice of the peace in a local police-court." The *Argus* then proceeds in a strain of ridicule and invective to denounce the formation of the committee, and declares it to be a job. It argues that if Government had

really been desirous of obtaining information on diphtheria, why not apply to the Central Board of Health or the Medical Society of Victoria. "The Chief Secretary," says our contemporary, "can hardly expect that out of such a singular trio there can be any outgrowth not suggestive of derision." This is speaking out pretty plainly, and perhaps to the purpose; but whilst we advocate to the fullest extent the liberty of the press in all matters relating to our Profession, we cannot help coming to the conclusion that a good deal of the ill-feeling and bitterness attending Medical quarrels and discussions in Melbourne arise from the very active part that political journals take in these matters—not so much as regards the present case, because that is a legitimate one for free comment, but those of a more purely Professional character. In some of the articles which have appeared in the Melbourne newspapers personalities have been indulged in, such as characterised the Medical press in this country in its worst and most objectionable times. Purely Professional disputes should be confined as much as possible to the Profession itself and their recognised organs of the public press. Nothing but scandal and ridicule can arise amongst the public from such articles as we have alluded to appearing in the newspapers. So long as these combats go on, the Profession must occupy a position in Melbourne far inferior to what it deserves. We should be glad if anything we say may convince our friends in the Far South that, however gratifying it is to give a "knock-down blow" to an opponent, every such blow rebounds to the injury of the Profession at large.

THE WEEK.

TOPICS OF THE DAY.

The trial of Arthur O'Connor for trying to intimidate the Queen illustrates two things—one, the ease with which science can prove a man mad; the other, the difficulty there is to get unscientific people to accept its conclusions. We suppose this obstinate resistance of the unlearned springs from the old antagonism between science and credulity, only the development is in a new direction. We have been long told of faith making demands on assent which science would not or could not yield; but now it is science that asks for a submission which the weak vulgar, who only follow the dictates of common sense, obstinately refuse. Science, in the person of a distinguished alienist Physician, maintains that Arthur O'Connor is mad. Mankind, as represented by judge, jury, and Arthur O'Connor himself, are credulous enough to maintain that he is sane. The age, we must confess, is not yet sufficiently educated to pay proper respect to the dicta of scientific men. Who ought to know if Arthur O'Connor is mad if two alienist Physicians do not? and yet, lamentable to relate, we have not met a single person who does not think he thoroughly deserves his birching and imprisonment! People will admit that the boy has a weak chest, and is of a scrofulous constitution, and that his head-measurements are not up to the standard of the highest Aryan type, and they do not dispute that his great-uncle may have been insane; but somehow the stolid plain sense of the average Englishman refuses to be convinced that a lad is mad who never showed any symptoms of insanity previously to his crime, for which there was an avowed motive, who pleaded guilty, and who scouts the idea of his not being at the time and now perfectly aware of all he was doing, and of the consequences. With crass ignorance the public refuse to accept the enlightened teaching that if a man or a lad allows himself to listen to the dictates of inordinate vanity, thirst for notoriety, and political fanaticism, and is tempted to commit a foolish and wicked act, he is not responsible for it. Of course, transcendental psychology sees the whole matter in a different light, and will find in the conditions above enumerated all the proof of insanity it could wish. All we can say is, that the schoolmaster must be abroad for some generations to come before the English mind will ascend to the exalted height from which mental pathology judges; and as we are members of society, and subjects of a Sovereign—both of whom require protection from fools as well as rogues—we are bound to confess that we are glad that the required mental development is not likely to take place in our time.

A case of accidental poisoning was investigated by Mr. Humphreys last week, which reflects but little credit on the discipline and management of the London Hospital. A child having a cough, her father applied at the London Hospital, where he saw *the porter*, who furnished him with a mixture, after taking three doses of which the child died with the symptoms of narcotic poisoning. The attention of the authorities of the London Hospital has been called to the case by the verdict of the coroner's jury, and we have no doubt that a stop will be put to consultations with the porter. The child's father is a shoemaker, and probably now regrets that he did not pay a small fee to a general Practitioner for advice and medicine, instead of asking for charity.

The English Conjoint Examination Scheme continues in its unsatisfactory and imperfect state. We hear of attempts in various quarters to render it a more comprehensive one, but we do not know that any decisive step has yet been taken. Those who are best informed in the matter believe that it cannot be done without fresh legislation; and it has yet to be proved how far those Bodies which have given in their adhesion to the scheme are legally justified in doing so by their charters. In Scotland the opposition to a Conjoint Scheme is by no means diminishing.

PATHOLOGICAL SOCIETY.

At the last meeting of this Society, the chairman announced that the first meeting in May would be devoted to a discussion on pyæmia. Dr. Burdon-Sanderson will commence the discussion, and will exhibit certain specimens, which we may say are of exceeding interest, illustrative of his views. Gentlemen who may desire to take part in the discussion are also invited to submit any specimens they may possess illustrative of their views to the meeting.

PUNISHMENT IN THEORY AND FLOGGING IN PRACTICE.

Our readers may do us the honour to recollect that some time ago we favoured them with some essays on the nature of punishment, in which we laid down the principle that it should be—first, such as may reform the offender; secondly, such as may deter others from offending; and thirdly, that it should be frankly vindictive—that it should satisfy that inborn instinct by which we feel that a properly punished offender has got what he deserves, and deserves what he has got. So when the estimable Sheriff Sir John Bennett sent to our office the other day an order of admission to see certain criminals flogged at Newgate, we accepted the invitation as a means of studying in practice what had been before but the subject of inward cogitation, and we went. Punctually at ten o'clock we were ushered into a long whitewashed room, the chief piece of furniture in which was a huge black box with uprights so contrived as to hold the patient's legs and arms immovable. In one corner were two men stripped to their shirts; in another, a pale, scowling wretch, whimpering and protesting his innocence. Soon, however, was he confined in the black box, and the operator, poising his instrument scientifically, and giving it a preliminary flourish, began to lay on stripes in slow deliberate succession, whilst the worthy sheriff counted them, and gave the time with chronometric precision. As to the stripes, surgically speaking, we can only describe them as a compound of bruising, cutting, and tearing of the most horrible description; and, familiar as we were with Surgical operations before the days of chloroform, we believe that not the most serious and protracted, including amputation, trephining, lithotomy,

tooth-drawing, or all of them put together, were half so painful as flogging. As for the reformation of the offenders we have no evidence; but we could not help thinking what a pity it was that a thousand costermongers could not have been admitted to the exhibition, as we are sure that a thousand tongues would then have spoken of the possible inconvenience of beating a wife, or even of shoving her under the wheel of a cart.

BAD BEER AND WIFE-BEATING.

It is well known that "intoxication" is not a simple and uniform process, but that the precise character of it depends on the intoxicating agent. Good old wine will produce a good-tempered hilarity, whilst new, heady, ill-brewed, and ill-kept liquors produce stupidity or brutal violence. Now, with regard to beer, it must be remembered that its intoxicating power is far greater than can be accounted for by the mere alcohol it contains, and that cheap and coarse varieties of the hop—a plant nearly allied to the Indian hemp, or *bhang*—may be capable of producing a furious delirium, quite apart from alcoholic intoxication. A magistrate's clerk once told us that the worst assaults and crimes of violence in his district were committed by men who drank at public-houses supplied by one particular brewery. We know a publican, ordinarily a soft, easy-tempered man, but subject to occasional fits of intemperance, during which he gorged himself with new ale. The result was a compound of imbecile stupidity with fits of unreasoning brutal ferocity, of which his wife was the victim. This poor woman told the writer that she never went to bed during one of these fits without fear of her life; but that waking up one morning she discovered her husband leaning over her in what she hoped was a pensive and penitent attitude. "Well, my dear William," she said, "what are you thinking of?" "I was thinking," he replied, "that I hoped you might die in your confinement"! Query: Whether we can much blame the poor wife-beating costermonger, so long as a glass of bad beer is cheaper and more attainable than a cup of tea or coffee?

PRESTWICH ON THE CONTAMINATION OF WATER-BEARING STRATA.

In the course of an admirable lecture delivered before the Geological Society of London, and published in *Nature*, Mr. Prestwich makes the following remarks on the contamination of wells:—

"With the art of well-digging it soon became apparent that, let the well be carried down but half-way to the level of ground-springs, it would remain dry, and that then, so far from holding water, any water now poured into it would pass through the porous strata down to the water-level beneath, keeping the shallower well or pit constantly drained. So convenient and ready a means of getting rid of all refuse liquids was not neglected. Whilst on one side of the house a well was sunk to the ground-springs, at a depth, say, of twenty feet, on the other side a dry well was sunk to a depth of ten feet, and this was made the receptacle of house-refuse and sewage. The sand or gravel acting as a filter, the minor solid matter remained in the dry well, while the major liquid portion passed through the permeable stratum and went to feed the underlying springs. What was done in one house was done in the many; and what was done by our rude ancestors centuries back has continued to be the practice of their more cultivated descendants to the present day, with a persistency in the method only to be attributed to the ignorance of the existence of such a state of things among the masses, and to the ignorance of the real conditions and actual results of perpetuating such an evil—an evil common alike to the cottages of the poor and, with few exceptions, to the mansions of the rich.

"Instances occur from time to time to point out isolated consequences of this pernicious practice, but I believe no one who has not gone into the geological question can realise its magnitude. It is not confined to one district or to a few towns or villages. It is the rule, and only within the last few years have there been any exceptions. . . . . In villages and detached houses, great or small, it remains untouched and unchecked. Not a county, not a district, not a valley, not the smallest tract of permeable strata, is free from this plague-spot. It haunts the land, and is the more dangerous from its unseen, hidden, and too often unsuspected existence. Bright as the water often is, without objectionable taste or smell, it passes without suspicion until corrupted beyond the possibility of concealment by its evil companionship. Damage, slight in extent, or unimportant possibly for short use, but accumulative by constant use, may and does, I believe, pass unnoticed and unregarded for years. Nevertheless the draught, under some conditions, is as certain in its effects, however slow in its operation, as would be a dose of hemlock. Go where we may, we never know when the poisoned chalice may be presented to our lips. . . . .

"This also is only one form of the evil—it is that where the water-bearing strata are thin and the wells do not exceed a depth of thirty feet. . . . .

"But even our deeper and apparently inaccessible springs have not escaped contamination. As before mentioned, the underground water will, when tapped by artesian wells, rise to or above the surface, according to the relative height of the surface of the ground at the well, and of the outcrop of the water-bearing bed or beds. . . . . Further, it has been discovered that a well of this class can absorb a quantity of water equal to that which it can furnish; and as these wells give greater supplies than shallow wells, the absorbing wells of the same class are alike powerful in proportion to the others. The perverse ingenuity of man has here again taken advantage of these conditions to get rid of offensive waste waters by diverting them into such deep wells, whence they pass away in hidden underground channels, unseen and unsuspected, and mingle with those deep-seated water-sources feeding the artesian wells dependent upon them for their supply.

"In Paris, where there are several alternating beds of permeable and impermeable strata, and the depth to reach them is not very great, this system of absorbing wells connected with factories became, until regulated by the municipality, very common, to the great injury of many of the underground springs. . . . . Our own system of surface-drainage is generally too good, and the depth to the lower water-bearing strata too great, to have rendered the use of such wells here equally advantageous; nevertheless, I have reason to believe that they do exist, and that the sources even of our deep well-water supply in the lower tertiary sands and in the chalk are thus to some extent polluted and injured.

"Nor do the great and perennial springs supplying our rivers altogether escape the evils arising from these obnoxious practices. On the high oolitic ranges and amongst the undulating chalk hills, the line of water-level is often so deep below the surface, that only in few cases are wells made—the population being generally dependent on rain-water for their water-supply. But this does not prevent the construction of dry wells for the disposal of sewage and refuse. It is true that the population of these hills is sparse—here and there a farm, a few cottages, and scarcely a village. Still, as the ground is everywhere absorbent, and there are no streams even in the valleys (I am now speaking of the higher districts), every dwelling contributes its quota; for the rain and all liquid matter absorbed in these strata necessarily pass down to the great underground reservoirs of water feeding the springs thrown out in the deeper river-valleys. In these cases, however, the thickness of strata through which any liquid has to pass before reaching the line of water-level is such as to produce a more or less efficient filtration and complete decomposition."

THE SURGICAL CONGRESS AT BERLIN.

We have been favoured with the following extract from a letter dated April 14:—

"The Surgical Congress has just been held here (Langenbeck, President), in the Hotel Rome, from Wednesday to Saturday. Trendelburg gave a very good address on 'Tracheotomy,' and Busch 'On Cranial Fractures, with Depression.' Simon (Heidelberg) brought with him a rare case—fistula of the kidney. You could place your finger in the pelvis. Stilling, of Cassell, brought with him a large collection of microscopical preparations and drawings of the same to prove that the trabeculæ of the corpora cavernosa and spongiosa were composed of unstriped muscle. Weggener (Virchow's assistant) was, however, very sceptical, and in no very measured manner expressed his opinions, much to the annoyance of Stilling, but yet with the secret (if not avowed) approval of very many members of the Congress. Weggener himself brought an elaborate report of experiments relating

to the influence of phosphorus on the growth of bone. Billroth made a good speech on the injection of tumours. In reference to a microscope, I am very well pleased with mine from Hartnack. Weggener strongly advises Benecke, a Berlin maker, who is cheaper than Hartnack. I believe that the English glasses are superior to the Continental, but that the superiority is not of any practical importance. I am inclined to think that the English stands are more convenient than the German, as here they do not care about a coarse movement, being content with the hand. The apparatus for work is cheaper in England than here, and better. With Hartnack I have all that is needful for pathological work. I paid him 73 thalers, and sent him 20 thalers more the other day for a No. 9 object-glass, so you see the cost is about £15. I think if you can pick up a second-hand microscope in England it would be better, and then, if you required it, you could get one of Hartnack's glasses adapted to it. Lawley, of Farringdon-street, has always on sale a collection of second-hand microscopes. The summer session will begin here about May 1."

QUININE COMPARED WITH ERGOT.

It is well known amongst practical men in England that sulphate of quinine has certain effects on the womb, of which it is well to be aware—for instance, that if given to young girls it is apt to make the menstruation painful and scanty. Dr. Angelo Monteverdi, of Cremona, has treated of this matter at length in a lately published treatise,(a) of which the following are the conclusions:—Bark and its preparations act first on the sympathetic, then on the spinal nerves. Thus it produces contraction of the muscular fibres supplied by the great sympathetic, and especially of the womb, bladder, intestines, and bloodvessels. Its effects depend on the dose, and on the condition of the organs acted on. It may restore relaxed organs to their normal state of tone; or if the tone of these organs be already sufficient, it may induce morbid and excessive contraction. This is shown by its action on the pregnant womb, and especially during parturition. It may, administered imprudently, cause abortion; but in case of languid and feeble uterine contraction it may accelerate childbirth, and cause the normal expulsion of the placenta. Dr. Monteverdi believes it to be far preferable to the ergot, and less detrimental to mother and child. It takes the place of the ergot in all relaxed conditions of the womb—menorrhagia, amenorrhœa, and the like. It is the best preventive of puerperal fever, and the best remedy for its early stages. It is injurious in all cases of uterine excitation. These are the conclusions of Dr. Monteverdi, supported by many cases and by abundance of argument. Without doubt he demonstrates the effect of quinine on the womb; but he fails to show that for rapidity, certainty, and power of action it is at all comparable to the ergot as a parturient. Nevertheless, the hints here given, and especially on the possibility of causing dysmenorrhœa or abortion, are worthy the attention of the circumspect Practitioner.

THE PROPOSED NEW LAW OF LIBEL.

A Bill on this subject has just been introduced into the House of Commons by the Hon. Geo. Denman, Mr. Raikes, and Mr. Cross. The Bill proposes to add hard labour to the term of imprisonment, which may now be inflicted upon the publisher of any defamatory libel, if it be proved that he knew the libel to be false. Again, in the case of libelling with intent to extort money, the Bill proposes to add whipping, in case the offender be a male; and further, "whosoever shall accuse or threaten to accuse, or send, deliver, or utter, or directly or indirectly cause to be received, knowing the contents thereof, any letter or writing accusing or threatening to accuse any woman of unchastity, with a view to extort or gain by means of such accusation (letter or writing) any property, chattel, money, valuable security, or other valuable thing from any person, shall be guilty of felony, and liable to the punishment of penal servitude for life, or imprisonment for two years with hard labour, with the superaddition of three floggings."

(a) "Dimostrazione di una Virtù Medicamentosa della China." Cremona, 1870.

SOAP AND SKIN DISEASE.

A writer in *Nature* traces some cases of eczema to the use of soap made of putrid fat, whose ill qualities are hidden by perfume. Moreover, he says that such fat is often melted out of putrid bones, and that the soapmakers combine with the soap a large quantity of sharp angular fragments of bone. Thus the skin, and especially that of the face if the victim be a shaver, is both mechanically abraded and exposed to the absorption of the venomous products of putrefaction.

"I have," he says, "while using such shaving-soap thrice suffered from eczema of the face. On the first occasion I derived no benefit from treatment by the two most celebrated dermal Surgeons in London, and at last the disease went away of itself after giving up shaving for a time. I had by me a quantity of this brown soap, and through inadvertence took to using it again, for a time without effect; but when dry and hot weather came, with it came a recurrence of the skin disease, which also again, after some months of discomfort, went away. Curious to make sure whether or not the soap was the real cause, I a third time employed the soap deliberately to see if the eczema was due to it. I was in excellent health, and in about three weeks I found the disease re-established, so that I think the soap must be viewed as found guilty. Good white unscented curd soap is now my resource, and with no ill-effects."

"Sweet are the uses of adversity;" and the sufferer will be cheaply let off if he has learned at the expense of only three attacks of eczema and some fees to a "dermal Surgeon" that soap, having for its function the removal of dirt and smell, ought not itself to contain anything dirty or odoriferous. Sensible people use two kinds of soap—one called *Knight's pale primrose*, for the head, body, and limbs; the other a pure white scentless curd soap, or else the white Castile soap of the Pharmacopœia, for the face (if the skin is too delicate to bear the yellow) and for the mouth. As for children with "bad heads," *Knight's pale primrose* cures cases rebellious to all the compounds of mercury, brimstone, zinc, and benzoin which are liberally dispensed at the skin Hospitals; but then it is so cheap and unpretending, and people feel quite offended at being told their children can be cured by a lump of pure yellow soap! We have made washing a science, and affirm that the right way is, to wash yourself sweet and clean first, then scent yourself if you please; but don't mix perfume with the soap. So, also, colouring matter. Why should soap be mixed with burnt sugar to make it brown? and what is the use of washing with a soap that stains the towel a light yellow? Pure white curd soap and precipitated chalk form the best dentifrice. If the breath lacks perfume, it is better to get the "Medical man" (or perhaps an "oral" or "guttural Surgeon") to look at the tongue and tonsils than to use a perfumed tooth-powder. There are, of course, purposes which are answered legitimately by medicated soaps. For instance, when sages or divinities of 50 are a little too plump and buxom, and liable to chafe, or when the skin of the feet is tender after walking, a little of Calvert's medical carbolic soap, or Wright's *sapo carbonis detergens*, acts as a fortifier to the too soft epithelium. Soap mixed with sand is sometimes useful to rub off thick and dirty cuticle; but these are exceptions. Sensible people generally use the plain, pure soap, and do not buy bad soap, worsened by colouring matter and scent, at a higher price.

AMERICAN MEDICAL DEGREES.

It has long been a scandal that so-called Medical degrees have been obtainable in America by persons altogether unqualified and quite uneducated. The evil has at length become so intolerable in one quarter, that the Government of Philadelphia have taken action on the subject. Bills have passed the Assembly, and now only await the Governor's signature to become a law, depriving the Eclectic Medical College of

Philadelphia and the Philadelphia University of Medicine of their charters. The preambles to the Bills declare that these establishments "have for some time past been engaged in the unlawful sale and issuing of Medical diplomas to persons not qualified to receive them, in violation of the spirit and terms of their charters, to the gross detriment of the public interest, tending to bring the Medical institutions of the State into discredit, and endanger the public health, by permitting persons utterly unqualified to practise Medicine and to exhibit diplomas thus improperly obtained." It is high time that some others of the United States should follow the example set them by the authorities of Philadelphia. Throughout the States spurious diplomas are to be obtained by the payment of a small sum of money.

SMALL-POX JOTTINGS.

THE Medical report last week to the St. Pancras Vestry stated that "small-pox exhibited a slow but satisfactory decline."——Four new cases of small-pox were reported last week to the St. James's (Westminster) Vestry.——Two deaths from the disease occurred in Newington last week.——There were no deaths registered from small-pox during the past month in St. George's-in-the-East.——The Dublin Small-pox Committee continue to devote considerable time to their duties. Already the Committee have accomplished much. At a meeting held on Friday it was resolved that the clergymen of all denominations in the city should be *ex officio* members, as well as the chairman, vice-chairman, and deputy vice-chairman of each union, and all the members of the Public Health Committee of the Corporation.——The *Leicester Chronicle* says that there are 300 cases of small-pox at present under treatment in the town. ——Two deaths were reported in Bermondsey from small-pox in the past fortnight.——Forty-nine deaths from small-pox occurred in London last week, thirteen of which were recorded in the special Small-pox Hospitals.——The disease is very fatally prevalent in Poplar; nine deaths were returned, four of which were unvaccinated cases.——Dr. Aldis, St. George's, Hanover-square, reports for the week ending the 13th inst. five cases of small-pox, four of which were sent to the Hospital.

SANITARY CONDITION OF ARISTOCRATIC MANSIONS.

THERE can be no excuse for the neglect of sanitary measures in the abodes of the wealthy; yet, according to Dr. Whitmore, the Medical Officer of Health for Marylebone, this neglect is by no means uncommon. He says in his last monthly report that his attention has been lately called to the condition of a highly rented house in one of the most respectable streets of the parish, which he could designate by no other term than disgraceful; but this, Dr. Whitmore says, is by no means an isolated case. He need hardly say that in these cases orders for sanitary work are promptly made upon the owners, and he personally took care that no unnecessary delay in carrying them out was permitted.

VACCINATION IN JERSEY.

THE Jersey "States" remain true to their colours respecting vaccination, and their motto is still "No surrender." Small-pox is rife in the island, and the Bill for rendering vaccination compulsory has been thrown out by the powers that be. At the same time they have, like the currier in the fable, compromised the matter, and have appointed a committee to consider and report upon the best method of carrying out the principle of vaccination on a voluntary basis. Verily, "there is nothing like leather."

FROM ABROAD.—THE FRENCH MEDICAL ASSOCIATION—M. GOSSELIN ON SURGICAL AFFECTIONS OF ADOLESCENTS—THE "AFFAIRE DOLBEAU."

THE French General Medical Association held its anniversary meeting on Sunday week, and, in spite of the perturbations of every kind ensuing on late events, most of the local societies were represented by their respective presidents or by delegates. Those from Alsace and Lorraine, putting in their appearance in order to testify the love and attachment they felt for their mother country, and their hopes of future restoration to it, were received with a cordial enthusiasm amounting to an ovation. The first business devolved upon the Association was a consequence of becoming its own absolute master on the fall of the Imperial *régime*—the election of a President by universal suffrage. It was, indeed, only a confirmation, for the re-election of M. Tardieu had taken place a few weeks before. There was at first some opposition to the list of names proposed by the Council of the Association, as supposed to be the product of cliquism, and devolving too much power on the Paris Central Association. It is, in fact, one of the unavoidable necessities of all societies that those who are at all the trouble of displaying the necessity for them, getting them up, and seeing them through the difficulties of their early career, should retain a predominant power in their future working. The justice of their doing so seems to have been admitted in this case, for the names of various eminent persons selected as opponents were one after another withdrawn. M. Tardieu, in returning thanks in one of the happy addresses, displaying skill, tact, and just appreciation, for which he is famous, received immense applause when he "protested against the stupid kind of ostracism which too large a portion of the Assembly at Versailles had inflicted upon Paris"—a circumstance not without its political significance, when we remember that the audience was derived from all parts of France.

M. Brun, the Treasurer, gave a satisfactory account of the finances of the Association, stating that the Benevolent Pension Fund amounted to 215.00 fr. The Secretary, M. Latour, stated that the terrible events of last year, by throwing all France into trouble and confusion, prevented the local secretaries from furnishing their returns in time to allow of a complete display of the actual condition of the Association. But he was enabled to assure his audience as to the future of the institution, the information he is in possession of proving "that if, like everything else in France, it has felt the recoil of the public disasters, the Association, in imitation of France herself, is in train of recovery, and taking a new spring forward." Professor Jeannel, of Bordeaux, delivered an animated report in favour of the re-establishment of the *concours* for all Medical places and functions, but under broader and more intelligent conditions than have heretofore prevailed. A report by M. Guerrier, the legal adviser of the Association, relating to the difficult subject, "the illegal practice of Medicine," terminated the proceedings.

In a memoir read to the Académie des Sciences by M. Gosselin, on the "Surgical Affections of Adolescents," he sought to show the influence exerted by the age of the patient in the choice of the means of treatment.

"For determining this choice," he says, "I offer the following formula for our guidance, viz.:—'The special spontaneous surgical affections of young persons have a tendency to persist, increase, or relapse, as long as the period of adolescence lasts; but these tendencies are lost as soon as adult age is reached.' Thus—1. In *ingrowing nail* many are the remedies that have been recommended, and yet new ones are always being sought for, because, after using those hitherto employed, relapse has ensued. Now, most frequently this depends upon the fact that the subject, being still young, retains the special pathological aptitude through which the disease was originally produced. For my part, I have never had occasion to observe relapse after the 25th year, and from this I conclude that, while we should take every care to prevent the return of the disease, we must not expect a definitive cure as long as the patient has not reached his 23rd or 24th year.

"2. In *valgus douloureux*, which I have also named *tarsalgia*, I have established that the disease depends on a special arthro-osteitis of the tarsus, developing itself as a consequence of the growth of this part of the skeleton; and that the chief indica-

tion consists in relieving the pain in walking and the concomitant contraction of the muscles of the leg, and thus preventing termination by muscular retraction, permanent valgus, and anchylosis. The best means for obtaining these results are rest, *inamovible* apparatus, and sometimes tenotomy of the lateral peronei and electricity. But as long as the patient remains young, relapse is not always avoidable. When it does occur we must return to the employment of the same means, and not conclude too hastily that the disease is incurable; for by persevering in the treatment until the subject has attained the adult age we may prevent the consecutive deformity and infirmity which would ensue if the affection were left to itself.

"3. In *acute suppurating osteitis of the epiphyses*, when this has not been intense enough to call for primary amputation or to cause death, and when it has terminated by necrosis of long duration, I recommend that consecutive amputation should not be too readily determined upon; for in such cases I have seen the necrosis terminate and a definitive cure ensue, when the patient, having reached his 25th or 26th year, has lost his predisposition to suppurative osteitis, which was a consequence of his age and an aberration of nutrition at the period of the juncture of the epiphyses.

"4. In *exostosis of the epiphyses*, or exostosis of development, my observations have taught me that the tumour ceases to grow and to be painful when the subject has once passed adolescence; and, as its removal is a dangerous operation, I advise temporising and leaving the affection to itself.

"5. In *subungual exostosis of the great-toe*—an affection too troublesome and too painful to allow of non-interference on the part of the Surgeon—the relapses which follow their employment constitute the objection to most of the measures that have been proposed for its removal. But here, as in in-growing nail, I have found that, although relapse occurred while the patient still continued young, it ceased when once adult age had been reached.

"6. In *large fibrous naso-pharyngeal polypi*, the dimensions of which do not allow of their being treated even in a palliative manner without a preliminary operation affording access to their seat of implantation, this consideration regarding age is of primary consequence. I reject the excision of the upper jaw because it endangers life and leaves a mutilation of the face without assuring in an absolute manner against relapse. I prefer M. Nélaton's procedure—an aperture in the velum and arch of the palate—contenting myself with palliative operations by excision and cauterisation, thus preserving the patient's life until the time when, being of adult age, he will in all probability have lost the disposition to reproduce the tumour."

The *Journal des Débats* publishes the following statement respecting Professor Dolbeau, which the *Gazette Hebdomadaire* regards as a quasi-official circular:—

"It will be remembered that at one of the latter sittings of the National Assembly the Minister of Public Instruction stated that Professor Dolbeau had demanded of the President of the Assistance Publique that an investigation should be made as to the occurrences which took place at the Beaujon Hospital when the Versailles troops entered Paris. The inquiry, which was conducted by a Commission, has now terminated its proceedings, having interrogated M. Dolbeau and all those able to speak to the facts. The minutes of the depositions have been forwarded to the Minister. All the witnesses agreed that M. Dolbeau had attended to all the patients, whether federals or not, with the greatest zeal. With regard to Bredon (whom he was reproached with delivering up) he had even manifested great complaisance, inasmuch as this man, in order to avoid the combat, had pretended to be worse than he was. When, therefore, the troops had occupied the Hospital, and room had to be made for the wounded who were on their way thither, Bredon and eight others were selected for discharge. An observation made aloud by one of the students caused M. Dolbeau to remark that the card which was presented to him for signature was not that of Bredon, but he only desired the Sister to see the matter rectified. On returning to the Hospital in the evening he learned that no such rectification had taken place, that the patient was still in the Hospital, and that the card could not be found. Finding no one from whom he could get any explanation, and believing in a kind of mute conspiracy, M. Dolbeau addressed himself to the officer on duty, and informed him of what had occurred. Bredon was taken into custody, but liberated next morning. A report having got about that this man had been shot, great excitement prevailed throughout the Hospital; but on the truth becoming known, those who had taken part in it retracted their accusations. Moreover, Bredon has since been at the Hospital to ask for aid and to return thanks for the care that had been taken of him. The Commission dismisses the complaint against Professor Dolbeau, and comments upon the irregularities which explain the manifestation of his displeasure."

PARLIAMENTARY.—THE LICENSING BILLS—LOCAL TAXATION.

On Tuesday, April 16, in the House of Lords,

The Earl of Kimberley introduced the Government Licensing Bill, when it was read a first time.

In the House of Commons,

Sir Massey Lopes carried his annual motion on local taxation, against the Government, by a majority of 100. The motion took the form of the following resolution:—"That it is expedient to remedy the injustice of imposing taxation for national objects on one description of property only, and therefore that no legislation with reference to local taxation will be satisfactory which does not provide, either in whole or in part, for the relief of occupiers and owners in counties and boroughs from charges imposed on ratepayers for the administration of justice, police, and lunatics, the expenditure for such purposes being almost entirely independent of local control."

On Wednesday, Sir H. Selwyn-Ibbetson moved the second reading of his Licensing Bill. The debate was adjourned.

POOR-LAW MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

(*By a Poor-law Medical Officer.*)

It is a very old and lamentable fact that the Medical men who are entrusted to take care of the health of the poor are themselves poor and ill-paid. The office of Parish Doctor confers no dignity or Professional rank upon the holder, and, so far from being an introduction to profitable practice, it is a positive injury to Professional prospects.

Under these circumstances, any proposal that was likely to increase the salary, and at the same time add to the dignity, of the District Medical Officer would be hailed with satisfaction by the Profession; and such a proposal we were led to expect in Mr. Stansfeld's Public Health Bill.

In that Bill it is proposed to appoint the District Medical men Officers of Health for their respective districts; and we are of opinion that in that proposal lies the germ of a radical change for the better in the position of those gentlemen. In the future the art and science of preventing disease is destined to occupy a very prominent and important place, and it is by all means desirable that the Medical Profession should guide and direct this great movement.

District Medical Officers are brought into personal communication with cases of epidemic disease arising from culpable neglect of the most common sanitary laws; and while they are well aware that the cases of fever, for example, are produced by contaminated water or by the foul sewage gases, they have no power to compel owners of property to remedy the evil. Such a power it is proposed to confer on the District Medical Officers by Mr. Stansfeld's Bill, and we certainly were of opinion that such an accession of power and responsibility, if accompanied with equitable and liberal arrangements for remuneration, would be the means of elevating the Professional and social status of the parish Doctor. The Medical Officers themselves, however, are not of that opinion, and they have expressed themselves through numerous letters and petitions in terms of unequivocal condemnation of those provisions of the Act which relate to the appointment of Officers of Health.

The Medical Officers urge, firstly, that no provision is made in the Act for the payment for services as Officers of Health by boards of guardians; and their experience of those boards in the past justifies them, they say, in thinking it probable that they (the Medical Officers) would be saddled with onerous

additional responsibilities without any addition, or with a very inadequate addition, to their present salaries.

We scarcely think that these apprehensions are well grounded. No change in the way of adding to the duties of the Medical Officer can be made by the guardians without communication with the Local Government Board, and the drawing up of a fresh contract; and we have Mr. Stansfeld's personal assurance that he has no intention whatever of adding to the duties of the District Medical Officers without increasing their pay.

The second and most important plea of the Medical Officers is, that if appointed Officers of Health in their districts they could not discharge the duties without injury to their own private interests; that the owners of property are guardians, vestrymen, and private patients, and that to take the necessary steps as Officers of Health—to compel such persons to put their houses in order—would make enemies of them in the board-room and in society.

We cannot but regard this plea with sorrow. It is a confession of weakness—natural and true perhaps, but of doubtful wisdom. If Medical men feel themselves too weak for this great task, other and bolder men will take it up. It must be remembered that the education which fits a man for the curative treatment is not necessary for him who deals only with the prevention of disease, and while an Officer of Health must be a man of science, he need not be a registered Practitioner or have any Medical licence.

We would therefore suggest caution in rejecting what is really intended as a boon, and may, we think, if judiciously handled, tend to elevate the position of the Medical Profession, and especially of the District Medical Officers.

No doubt the scruples and hesitation of the unwilling must be regarded, and due provision made that every District Medical Officer who professes himself unwilling to incur the responsibilities of Health Officer must not be forced into such a position, nor have any alteration made in his existing contract for the curative treatment of the sick.

If, then, due provision is made by the Public Health Bill for the adequate remuneration of Health Officers, and protection for those of our Medical brethren who do not feel themselves strong enough for the place, we trust that a large number of District Medical Officers throughout England will accept the position of Health Officers, and with it the chief share in the great work of preventing disease.

NEW BOOKS, WITH SHORT CRITIQUES.

Consumption and the Air Rebreathed: being a Sequel to the Author's Treatise on Consumption. By Henry MacCormac, M.D., Consulting Physician to the Belfast General Hospital, etc. London: Longmans. Pp. 150.

*** Dr. MacCormac is a learned man, and his views are supported by a host of authorities direct or indirect. These views are now tolerably well known—viz., that consumption only occurs under conditions which imply the necessity for breathing air over again. The carbonic acid is, in his estimation, the originating element. Now, whilst willing to admit that rebreathed air may be a cause of consumption, and that it is harmful in the extreme, we are hardly prepared to follow Dr. MacCormac in every particular. To his practical conclusions we cordially assent. Fresh air is undoubtedly a thing of the very utmost value, especially to those whose chests are naturally weak.

A Lecture on some Points for Comparison between the French and English Soldier. By Deputy Inspector-General C. A. Gordon, M.D., C.B., Officier de la Légion d'Honneur; late in special service with the French Army. London: Baillière, Tindall, and Cox. 1872. Pp. 30.

*** Our readers well know that Dr. Gordon had the high distinction of being accredited to the army within Paris during the German siege and bombardment. This opportunity was not thrown away on a man of his ripe experience and accurate powers of observation. This lecture will show how carefully he has scrutinised the whole status of the French soldier; including the qualification of recruits, the length of service, the weight which the soldier has to carry, his social standing, education, food, and drill; and on all these points a fair comparison with the English soldier is instituted. The French soldier of the future ought to bless Dr. Gordon for pointing out so clearly the circumstances in which his food and clothing are ill adapted to sustain him in his work.

The Education of the Deaf and Dumb by means of Lip-Reading and Articulation. By W. B. Dalby, F.R.C.S., M.B. Cantab. London: J. and A. Churchill. 1872. Pp. 32.

*** A very clear and able exposition of the art of teaching deaf mutes to speak by imitating the lip- and breath-movements of their teacher, with the comparative disadvantage of teaching them to talk with the fingers only.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, April 9.

Association against Alcoholic Drinks—New Medical Journals—The English Hospital—Repairs in Paris—New Light—Medical Mutual Aid Society—Reopening of the Medical School.

In referring to the new association organised in Paris against the abuse of alcoholic drinks, I overlooked the fact that there was another which has been in existence for some time, and likewise opposes the abuse of tobacco. This was started by M. Jules Guérin, who about a year ago petitioned the National Assembly to adopt measures to put down the immoderate use of tobacco and alcoholic drinks, which he looks upon as a symptom of the degradation of the race. He proposes to levy heavy taxes upon these articles, but to diminish that upon wine, and would have done well to add, upon all *necessaries of life*. As for beer, the worthy *savant*, strangely enough, classes it among spirituous liquors, as he says it is in its way not less prejudicial to the health. "It alters the 'national character,'" he adds, "by rendering those who indulge in it heavy and stupid."

A great many new Medical journals are springing up in France—among them the *Journal d'Ophthalmologie* (monthly), having for its principal editor Dr. Galezowski. *L'Indépendance Médicale*, essentially a specialist organ, also published monthly, professes to propagate new ideas and new remedies in Medicine and Surgery; the principal editor is Dr. F. Moreau-Wolf, who styles himself "Professeur libre de Pathologie des Voies Urinaires." An introductory address in the first number, by Dr. Jules Chéron, justifies specialism as "nécessaire au progrès de l'art de guérir, car elle représente un puissant mode d'analyse indispensable à l'étude d'un domain trop vaste que la division du travail peut seule permettre d'explorer." *L'Hospitalier*, a bi-monthly publication, is the special organ "des Sociétés de Secours aux Blessés et aux Victimes de la Guerre," and the principal editor is H. Renou.

There has been a series of popular Medical lectures in Paris. In the lecture-hall in the "Boulevard des Capucines," Dr. Blain des Cormiers entertained his hearers on "Les Maladies Régnantes" and "Les Maladies Professionnelles."

Sir Richard Wallace—"le grande bienfaiteur," as the French call him—who did so much to relieve the sufferings of Paris during the siege, seems indefatigable in his philanthropic efforts. He has founded just outside the fortifications at Neuilly a Hospital at his own expense, for the reception of poor British residents. It is designated the "Hertford Hospital," and Dr. Rose Cormack and Dr. Herbert are the Medical officers. I have paid frequent visits to this Hospital, which, although in every respect well suited for the purpose, is to be superseded by one more complete. In Sir John Cormack's Ward there were no less than four cases of bites and kicks from horses. As there were only twelve beds, this fact gives a hint of the composition of the English colony in Paris.

The "Galignani" Hospital at Neuilly—a similar institution to the above—has been reopened.

Sir Richard Wallace is, I understand, about to establish, at his own expense, drinking fountains in the most populous quarters of Paris; but, however well intended, they will, I fear, not take well in Paris, as the French are not generally water-drinkers. Nevertheless, let us have the fountains and be thankful.

The annual exodus for the provinces has already begun—rather earlier than usual—and several people are quitting Paris altogether, thoroughly disgusted with the internal state of affairs. While there is a great egress of Parisians, it would appear that there is a greater ingress of visitors, provincials as well as foreigners, the British being, as usual, the predominant element. But, wherever the people are gone, Paris seems as full as ever, and, owing to the increasing difficulties of free circulation, it is proposed to have subterranean boulevards in the most commercial quarters, which would not be a bad idea, as the number of accidents in the streets seems to be on the increase. Paris is beginning to look itself again, as the damage incurred by the double siege is being rapidly repaired, and many of the buildings that were burnt in the last agonies of the Commune have been set up again, with the exception of the larger edifices and monuments, which still remain to tell their sad tale. The French are generally very clever in all sorts of artistic work, and it is astonishing to see the manner in which the bullet-marks and other injuries inflicted by shells and the hands of the Vandals are being effaced. A peculiar cement is used, which dries up with wonderful rapidity, and assimilates itself with the hardest stone. Even the very trees that were so badly treated during the dreadful struggle between the Communists and the Versailles troops seem to be thriving again, and many that had their bark literally torn off, and were otherwise injured, are now flourishing as if nothing had happened to them, the wounds having been dressed with a substance composed of pitch—both not bad specimens of "plastic Surgery."

The oxy-hydric light, lately experimented with for lighting up the boulevards, is spoken of as a success, and the company—the patented owners of the invention—offers to substitute this new gas for that now in use, at a saving of 20 per cent. The light produced is equal to that by the carburetted hydrogen, but is somewhat paler, and resembles more an electric light. This, I am afraid, would form a serious objection to its use indoors, as the flame is rather dazzling and trying to the eyes, as are all white lights; but in other repects it is less detrimental to the health. Moreover, the agents observe that, as the price will not exceed 10d. per cubic metre, it may with advantage be utilised for other purposes, such as for the rapid fusion of metals, the manufacture of certain chemicals, and for rendering the air of sick-rooms and Hospitals wholesome and sweet, thus insuring salubrity, cleanliness, and economy at a trifling cost.

The weather is still very variable, the mercury fluctuating between 45° and 55° Fahr. within doors—and this will account for the continued prevalence of pulmonary and throat affections; but we are as yet free from any epidemic, properly so-called. The mortality for the week ending April 5 amounted to 884, being somewhat in excess of that for the week preceding.

Interrupted by the painful circumstances of which Paris had been the scene for nearly two years, the annual meeting of the Association Générale de Prévoyance et de Secours Mutuels des Médecins de France took place at 2 p.m. on Sunday, the 7th inst., in the great amphitheatre of the Bureau Central, which is situated in the Avenue Victoria, being about the only part of the building that escaped the Vandalic fire of the Communists, who had their head-quarters in the Hôtel-de-Ville—within a stone's throw. The meeting was presided over by M. Tardieu, the elected President of the Association, assisted by the Baron Larrey and Dr. Horteloup, Vice-Presidents; Dr. Amédée Latour, Secretary-General; and Dr. Brun, Treasurer. After the preliminary business of the meeting, M. Tardieu, as eloquent, and M. Latour, as fluent as ever, spoke of the past and present history of the Association, and held out hopes of a bright future. The latter referred most feelingly to the painful events that France, and particularly Paris, had just gone through. "Let us all work for the common weal," said he "and France will yet take its wonted place among the nations;" adding that, "although Alsace and Lorraine have been wrenched from us, the inhabitants of these lovely provinces will ever remain as they always have been—'our brothers and sisters' by the more sacred and indissoluble bonds of consanguinity."

The object of the Society is to succour those members and their families who, by advanced age, disease, or other calamity, may be reduced to a state of distress; to afford aid and protection to its members in every possible way; and to insure by its moralising influence the practice of the Medical art in a manner conformable to the dignity of the Profession. There is a sister society whose aims are almost identical, which was founded in 1833 by the late M. Orfila, but is confined to Practitioners in the Department of the Seine, whereas that of the Association Générale extends throughout France and its colonies. It is anticipated that ere long the two societies will be amalgamated.

On Sunday evening a *soirée confraternelle* was organised at the Grand Hotel, at which there were a goodly number of the Faculty present, but nothing compared to what it used to be in former years. There were a great many provincial Practitioners, and a sprinkling of the notabilities of the Profession, among whom I noticed Ricord, Tardieu, Amédeé Latour, Dr. Horteloup, formerly of the Hôtel-Dieu, and Dr. Béhier. Before the war a banquet used to be the order of the day, but it has been considered not quite the thing so soon after the disasters that had befallen the country. As it was, the *soirée* passed off most agreeably; there was no lack of refreshments, and owing to the admirable tact of Dr. Brun, the treasurer, the arrangements were all that could be desired, even for smoking, which, from the absence of ladies, was freely indulged in in the hall itself. It struck me, however, and others likewise, that the presence of an usher would be an improvement, so that one may know whom he is talking to, or whose acquaintance he may wish to cultivate.

April 16.

The distinguished Professor Richet has been promoted from the grade of Officer to that of Commander of the Legion of Honour, "for exceptional services, and for his devotedness to the sick and wounded during the siege and insurrection of Paris."

You will have learned that the court of inquiry on Professor Dolbeau has ended in his acquittal. The Medical School was reopened yesterday, under certain restrictions, which had reference only to Professor Dolbeau's course. At three o'clock precisely, M. Dolbeau, who looked somewhat jaded, made his appearance in the amphitheatre, preceded as usual by the beadle. There was no demonstration of any kind, either for or against him. Some attempts had been made to create a sensation, but the would-be agitators, not finding themselves sufficiently strong to carry on the contest, took their revenge by leaving their seats in a noisy manner, and "sloped" out of the school-room. The lecture, however, continued uninterrupted, and M. Dolbeau on leaving was saluted by a few tame hisses, of which he took not the slightest notice. Thus ended this comico-dramatic affair. M. Dolbeau is comparatively young for a Professor, being only 42 years of age. He is an able lecturer, a profound scholar, and an accomplished Surgeon.

AMERICA.

Philadelphia, March 16.

State Medical Societies—Protection against Actions for Malpractice—Medical Education in America—Medical Colleges—Dental Colleges—Forthcoming Meeting of the American Medical Association.

The proceedings of State Medical Societies are interesting, as a reflection of the prevailing spirit and sentiment of the Profession as a mass. Most of these gatherings are held in the early summer months, when a convenient excuse may be made for temporary absence from the cares of practice at a season when pleasure trips are fashionable and desirable. Very few Medical men visit these conventions with any actual intention of presenting startling communications on interesting themes of pathology, or of bringing forward any measures for the improvement or benefit of the Profession; most of the work of conventions, as of committees, is in the charge of a handful of men, and the rest of the members are listeners to, or quiet seconders of, the acts proposed for their consideration and votes. The useful few who are the prominent movers of measures in these societies often effect a great deal of good by the recommendations they make for the Profession at large, and the good sense of the majority generally checks any tendency to injudicious legislation. When I use the word "legislation," I do not mean to imply that the action of any Medical convention has the binding force of law, although usually graciously accepted by Medical men generally. The social aspects of these gatherings are not the least attractive features they offer.

I am led to make these remarks by the assembling of the "Medical Society of the State of New York" at Albany, about three weeks since, at their usual exceptional date of annual meeting. Among other important business transacted by it, was the adoption of a draft of a Bill to be presented to the Legislature for the protection of Physicians and Surgeons in cases of alleged malpractice. I do not know what safeguards

are thrown around the Profession in Great Britain in this respect, but hitherto in all our States science and skill applied to the cure of deformity or disease have been liable to punishment for malpractice, provided juries of ignoramuses could be found to respond to the appeals of legal advocates of the plaintiff's efforts at extortion. Three recent cases occur to me at this moment, in which as many of our most respectable Medical men were exposed to annoying legal persecution; but in each instance the vindication was triumphant, and the example in its moral effect beneficial for future cases of a similar kind. Judges are scarcely ever so sympathetic on the plaintiff's side that they are blinded to the real merits of the controversy, but juries are not always so intelligent or so just. The difficulty in all measures that are intended to throw a safeguard around the members of the Profession is in the enforcement of them. When a State Medical Society recommends a law to a Legislature for its approval, it is a settled custom that these mere politicians throw every practicable obstacle in the way of its passage, and it is therefore very doubtful whether the Profession will succeed in securing the protection it solicits.

There is always a disposition manifested at these annual gatherings to produce in the community at large an improved knowledge of Medical matters. There is a tendency here, which may be greater or less than prevails abroad, even among those who are considered the most reputable of our citizens, to patronise quackery—in which I, of course, include a number of *isms*—and the task of correcting such false and baneful influences seems to be almost hopeless. The laws now in force to prevent unqualified Practitioners from pursuing their injurious practices are certainly thus far insufficient. They vary in different States, and in some have not been enacted at all. It is very problematical whether the plan recommended by Dr. Stephen Rogers, of New York City, at the recent meeting would, if adopted, be of permanent advantage to the public, while it would certainly lower the tone of the Profession. "Upon the assumption that a properly educated Physician will, in some form or other, do what appears to him appropriate in cases of disease and in wounds, let us," he says, "insist upon the education, and leave the collateral questions of therapeutical belief and faith to the conscience of the individual." But what will the qualification or training of a "properly educated Physician" be? Will the homœopath and the regular Physician agree at the outset what is to be the standard of "proper education"? If so, the millennium of peace and harmony is close at hand. Dr. R. thinks that all efforts for the protection of the Profession will not then seem like selfish plans for the advancement of those having a particular set of views; but it may naturally be asked, When such legislation has been effected by this combination of all shades of Medical belief, in what way would its provisions be carried out to accommodate the regular Practitioner at the top of the scale, and every possible gradation of irregular globule-vendor, pellet-dispenser, and water-cure enthusiast, down to the very foot of it? The Society seems to have listened to these recommendations, but not to have heeded them.

Some interesting papers were read at this meeting. Once in a while, as for three or four successive years recently, in the State Medical Society of Pennsylvania, some cause of wrangling, such as the woman question, comes in as a disturbing element, and when the members of the convention afterwards review their own proceedings they wonder at the trifling importance of their scientific labours, and find they have accomplished almost nothing worth reporting. At the New York Society meeting, Dr. T. Addis Emmet read an interesting paper on "Chronic Cystitis in the Female," especially that form of it which is consequent on vesico-vaginal fistula. When Dr. J. Marion Sims left New York City to go abroad nearly a dozen years ago—about the outbreak of our civil troubles—he established for himself a reputation in Paris in the performance of difficult Surgical operations on the sex, and in the treatment of the peculiar diseases to which it is liable, equal to that which he had left behind him in America. His assistant, Dr. Emmet, then, however, stepped into his place in private and public practice in New York, and having a mechanical genius, he soon added to the value and importance of the operations, and is now universally recognised as one of the very foremost authorities in vesico-vaginal Surgery in this country, and as Dr. Sims's legitimate successor.

The winter sessions of our Medical Colleges terminate usually with the month of February, and within a few days from the suspension of lectures hundreds of new aspirants for the popular favour and for the honour of a liberal profession enter the ranks, and become scattered at once broadcast over the land. The technical term "commencement," is universally applied in this country to the graduation exercises of a college, inasmuch as the newly created M.D. on that day begins his career of Professional life. As you are doubtless aware, each graduate is a Doctor of Medicine; in other words, we have no classification of Physicians and Surgeons in those who study Medicine, but only in those who practise it. A student enters a Medical College, usually without foreseeing at first whether fate or his own taste may make him the one or the other, and, as a general rule, must practise all the departments of medical, surgical, and obstetrical science and art in the country town in which his abilities are henceforth to shine. In order to graduate, the Medical student has hitherto been compelled to attend the full courses of lectures on Anatomy, Physiology, Surgery, Obstetries, Materia Medica, Practice of Medicine, and Chemistry, in addition to three years of study, and all the usual moral and other qualifications desirable and attainable. These are the solid and substantial branches, which are applied and amplified into various ramifications in different schools, in combination with clinical teachings in all their phases. When a student comes up for examination, the rule in most of the Colleges is that he must pass satisfactorily in at least five of the branches out of the seven before he can receive the degree. It is a defect in the system of Medical education in this country, that the Professors who have lectured to the young men during several months, and taken often a personal interest in their welfare, should also examine them at the end of the session. There is certainly a natural leniency and tendency to admit students to the degree on the part of these gentlemen, rather than an undue severity in refusing them admission into the ranks of the Profession. The graduation fee—thirty dollars usually—might, with the unprincipled Faculties of some of the minor schools, which border slightly on the confines of Professional dishonesty, operate as an incentive to reject only occasionally candidates for graduation, in anticipation of the pecuniary loss involved in such rejection. Such tricky colleges are very, very few, however, are frowned upon by all honourable men, and soon find their proper level, and meet with an early demise. There has always been a strong feeling in this country of opposition to examining boards, and one of the best reasons for such opposition has been the fear that political influence might lead to the appointment of irregular and incompetent men, who in moral and mental *status* might be greatly inferior to those who presented themselves before them for examination. As at present constituted, the college Faculties are far more reliable, and although from partiality or too generous consideration of the candidate's proficiency the Profession may thus receive sometimes an unworthy addition to its numbers, there is no doubt that the same thing would not only occur more frequently in any other mode of examining, but that many an excellently prepared student would suffer martyrdom at the hands of a Medico-political board of pretentious State examiners.

A year or two ago it was not an uncommon event, in the absence of all restriction to the contrary, for a student to complete his attendance or lectures and become an M.D. with almost lightning-like rapidity. In other words, he would attend a course of winter instruction in Philadelphia or New York—this being his first session of lectures—and then, after an interval of a week or two, go to some summer school elsewhere and graduate; thus, in less than one year, attending two full courses of lectures, and storing away an immense mass of undigested material. It was not unusual for these hastily prepared Physicians to come back again to their first love the following winter, and claim all the privileges of reduced fees, etc., generally accorded to third-course students and graduates of other schools. But this soon came to be regarded by the winter colleges as not only detrimental to the interests of the student himself, but an unfair method of depriving them of the full fees to which they were justly entitled. The general sentiment of the Profession, which aims unceasingly at a higher standard and greater completeness of education, has materially aided the faculties of the various schools to break down this deleterious system; and it is probable that in time the evil complained of may be done away with entirely. The summer colleges referred to generally give a full and thorough course of lectures, and do not have any winter sessions. All the larger Medical schools in the cities of the North give summer lectures also; but, unlike those just referred to, they are merely intended to occupy the time of the student during the warmer months with subjects that are auxiliary to the lectures of the winter, and count nothing towards graduation, the tickets of this series being separate and not receivable as evidence of attendance on a full course of lectures. The summer instruction thus acts as a feeder to that of the winter,

the student becoming sufficiently interested to enrol himself continuously as a member of the College.

The larger Medical schools generally average, under existing circumstances, about a hundred graduates every spring; some of them rising to a score more, others to as many less. Before the late rebellion the usual number varied from 200 to 250 in the most popular and populous institutions, on account of the great numerical strength of the representatives from the Southern States. In one year before the war the number of matriculates at the Jefferson Medical College of Philadelphia was 630, and between 400 and 500 of these were from the South. Many of them were second-course students who came to the North to complete their education, having already commenced it, during the previous winter, in some Medical school in their own section of country. In this way the list of graduates of the Northern colleges was enormously swollen. At the present time a few stragglers from the South visit us, but it would be safe to say that there are now less than ten where there formerly were a hundred. Of course, this state of things is of benefit to the Southern Medical schools by contributing to keep these young gentlemen at home, but not so much as might at first appear; for the blasting effects of the rebellion on the people of the South, around whose homes the terrors of war brought its terrible ravages and desolation, have been such that they have not yet been pecuniarily able to contribute the means for the education of their sons in the Profession. It is probable, however, that the North will never again recover its lost prestige as the centre of Medical instruction, so far as the South is concerned, until long hereafter, when all personal and political sectional animosity is forgotten and its traces for ever buried.

In addition to the purely Medical schools, we have in Philadelphia a college of pharmacy and two dental colleges, each of which sends forth at this season of the year its graduates to practice the specialities taught by them. The branches of instruction in all of these institutions include not only those absolutely and exclusively necessary to pharmacists or dentists, but also others which can be judiciously brought into connexion with them. For instance, in the dental schools, Chemistry, Physiology, Anatomy, and Surgery are combined with Mechanical Dentistry, Dental Pathology, and Therapeutics, etc. The result is that a much more accomplished class of dental graduates pass from their halls into practice in consequence of this addition of what might be called inci*dental* branches of study. There are nine of these dental colleges in the United States, and it has been stated in one of our recent journals that no such institutions exist in Europe, although in England lectureships on Dental Surgery are attached to some of the Hospitals. The advantages of having special schools for these purposes have been signally manifested in this country, and their plan and objects might be very well imitated abroad. In the Pennsylvania College of Dental Surgery, which is a good illustration of this class of colleges, four hours are spent daily in actual clinical instruction, a large number of chairs being assigned for the use of the students in their performance of all the operations, and the practice of the various manipulations necessary in the treatment of the teeth. There is also a laboratory, in which are all the conveniences for the preparation of the metals, manufacture of teeth, etc., and in which also every process known in the Profession, which has any value to the mechanical dentist, is fully taught. The student is also required to go through all the essential steps connected with the insertion of artificial teeth, from taking the impression of the mouth to the entire construction of the denture, and its proper adjustment in the mouth of the patient. I have mentioned all these details to exhibit how thoroughly dentists may be educated in this country, if they only choose to avail themselves of the facilities offered them. It must assuredly be due to some innate fault in the moral or mental constitution of the individual, when with this groundwork of a full and complete education in dental science and kindred branches he fails to be a skilled, accomplished, and trustworthy practitioner of his art.

Very extensive arrangements are being made in this city for the next annual meeting of the National Medical Association, which holds its session here early in May. I shall be able in my next letter to enter more fully into details as to the nature of these preparations, and it is probable that unless some disturbing element, such as the woman or the negro, enters into the deliberation of the convention, its proceedings, business and social, will be very interesting. It is likely however, that the irrepressible advocates of colour and sex may endeavour to arouse the passions of the excitable, and to disturb the equanimity of the more placid delegates, by appeals on behalf of the woman and the negro, and thus impede the otherwise smooth current of business. There is a disposition among the best men of the Profession to make these national meetings something more creditable than arenas for the solution of political or social problems, the discussion of which annually dims the lustre of this organisation. A very interesting feature of this year's meeting will be the exhibition of chemical and pharmaceutical preparations, apparatus, and appliances; Surgical and obstetrical instruments and appliances; optical, ophthalmological, and other instruments of precision; philosophical instruments and apparatus; anatomical and pathological specimens, models, and other means of illustration; books, prints, and other publications. Such a display has never before been attempted, and no better field could have been selected for it than Philadelphia, for so long the centre of Medical instruction on this continent. As the occasion will bring together an excellent representation of the leading Medical and Surgical intellects and active working men of the country, I hope at that time to be able to give you a sketch of those present and the services they then render which may be of general interest as exhibiting the Professional progress and status of the day.

The small-pox has not yet been "stamped out." In Philadelphia there were last week 120 deaths. It is universally believed that the extent of its ravages in New York is suppressed, and that the public is deceived as to its actual progress. I hope in a short time to be able to present to you some exceedingly interesting official data connected with this variolous epidemic of 1871-72.

GENERAL CORRESPONDENCE.

EXPERIMENTS IN CHOLERA.

Letter from Dr. John Patterson.

[To the Editor of the Medical Times and Gazette.]

Sir,—The following experiments on animals with cholera-matter will, I think, be read with interest. Every care was taken to render the conditions as accurate as possible. The animals were seen at least twice in the day by myself or Dr. Zebrowsky, the Assistant-Surgeon, and their conditions carefully registered. The cholera-matter was from patients in deep collapse—the true rice-water motions—and was passed direct from the intestines into a wide-mouthed vessel and closely stoppered. The first experiments were performed with the fresh matter, the others with cholera-matter in a state of fermentation.

Series 1.—*Experiment* 1.—Two well-grown healthy young dogs were kept for forty-eight hours on simple food and pure water. November 17, 1871, at 10 a.m.: Twenty drops of fresh cholera-matter were injected into the cellular tissues of the back of the animals by the subcutaneous method. Same diet. 5 p.m.: No result. 18th, 10 a.m.: Repeated injections. 5 p.m.: Both animals well; no result.

Experiment 2.—A third dog, specially selected for his unhealthy-looking condition, was subjected to the same treatment. No result.

Experiment 3.—November 19, 9 a.m.: Injected four fluid drachms of fresh cholera-matter into the rectum of each dog. 5 p.m.: All well, though one looks dull and stupid. 20th: Repeated the injections of four fluid drachms. 5 p.m.: All well. 21st: This morning all the animals looked drooping, but it was discovered that they had not been supplied with water. After drinking freely they began to eat heartily. 5 p.m.: Motions somewhat liquid, but coloured and fæcal-smelling. The cholera-matter was now freely sprinkled over their food for the night. 22nd: Motions still somewhat liquid, and a little bloody mucus was passed by one of the first two experimented upon; he had also tenesmus. The unhealthy-looking one is much improved in appearance. 5 p.m.: Food again sprinkled with cholera-matter. 23rd. All well. They remained under observation until the 30th, eating food charged with cholera-matter, when the experiments were discontinued. No result.

Series 2.—*Performed with Cholera-Matter taken during Collapse, but allowed to Ferment.*—January 21, 1872: The two healthy dogs had each twenty drops of the fermenting matter subcutaneously injected into tissue of back and loins. They were allowed to run about the yard and to eat freely. 22nd and 23rd: Operation repeated. No apparent change in health was observed. 24th: Active; but both have large hard and tender swellings over the seat of the injections, one apparently going on to suppuration. 25th

10 a.m.: Active, and eat well; the phelgmon in one actively suppurating. 1 p.m.: Opened the phlegmon and let out about an ounce of fetid pus. 6 p.m.: Both active. 26th: Active and hungry; the abscess opened is refilling; the hard swelling in the other disappearing. 28th: Both dogs well; the opened abscess healing; motions of both natural.

Series 3.—*Experiment* 1.—January 29, 1872: The stronger of the two dogs had a wire muzzle accurately fitted over his mouth. At the end of the muzzle a pad of cotton-wool was arranged. This was first steeped in fermenting cholera-matter, and was regularly three times a day resoaked in the fluid until February 4, being only removed at meal times. No result.

Experiment 2.—A young pup, feeding on milk, was similarly treated, and exposed to breathe the effluvium from January 28 to February 6. No result.

Experiment 3.—February 7: This same pup was placed under the influence of chloroform. The femoral vein was exposed, and twenty drops of the decomposing cholera-fluid injected direct into the circulation. 8th and 9th: Very dull; declined his food, but drank greedily of water. 10th: Is well, and eats; motions natural; was under observation for a week longer. No results.

Series 4.—*Experiment* 1.—January 23: Three healthy rabbits had each twenty drops of the decomposing cholera matter injected subcutaneously. 26th: Injections repeated. No result.

Experiment 2.—January 27: Injected three fluid drachms of the cholera-matter into the rectum of each rabbit. 31st: Injected again three fluid drachms, diluted with an equal quantity of water. February 2: Repeated this last injection. 4th: Injection repeated. No result.

Series 5.—*Experiment* 1.—From January 19 to February 10, six healthy mice were exposed under inverted glass funnels to an atmosphere of fermenting cholera-matter, and fed with bread, meat, and barley soaked for two days in the same fluid—the true rice-water motions from cholera patients in stage of collapse. The air of the funnels was stinking. The animals were occasionally removed to an airy wire cage for a few hours, and fresh food given them. Under the funnels they drank freely of the cholera dejection and devoured the food soaked in it. Two died on the fourth day of their confinement. On both occasions fresh water had been forgotten, and the cold at night was severe. The symptoms of both were alike; debility and horripilation; but the motions were solid and natural. One was carefully examined after death. The intestines were filled with hard fæcal matter. After this cotton-wool was supplied to the others, in which they immediately rolled themselves and seemed quite happy. Two of the mice were exposed to these concentrated conditions all the time, and two more half of it; and from February 5 to 10 all four were kept together, feeding on food steeped in the cholera-matter, and breathing the impure atmosphere of the funnels. No result.

Experiment 2.—February 10: The four mice had each eight drops of cholera-matter subcutaneously injected, and were put into an airy wire cage, and allowed pure food and water. They became very uneasy and irritable. At night they were well, but unfortunately they were not supplied with food. 11th, 9 a.m.: One was found in a wounded and dying state, and one was nearly all devoured; his bones and a little bit of skin only remained. The other two were well and active, and the motions all hard and natural. These two and a newly caught one were again subcutaneously injected with ten drops of the cholera-matter. After three days the operation was repeated. They were under observation until the 20th, and were in good health. 22nd: Discontinued the experiments. No result.

In reference to my former communications on the treatment of cholera by subcutaneous injection of morphine, it has been asked if the treatment was applied at a late period of the outbreak, when the disease had probably lost its first virulent character. Certainly not. It was begun within the first six days. Moreover, the disease was as virulent towards the end as at first. I am, &c.,

John Patterson, M.D., L.R.C.S.,
Surgeon-Superintendent of British Seamen's Hospital, Constantinople.

Constantinople, February 27.

"PITYRIASIS RUBRA."

Letter from Dr. H. S. Purdon.

[To the Editor of the Medical Times and Gazette.]

Sir,—Seeing in one of the quarterly Medical journals a short time since that the disease known as "pityriasis rubra" or general dermatitis usually terminated fatally—a view held by most authors—I should like to know if that is the received opinion. I have only met with three cases out of some 12,000 cutaneous diseases to which the term pityriasis rubra was applicable. My first two cases I lost sight of, so cannot say how they terminated, but the last one (a note of which may not be uninteresting) made a rapid recovery.

Mr. W. B., aged 40, married, of a good constitution, had an attack of rheumatic fever in Australia in 1865. Since his return to this country has been troubled more or less with rheumatic pains, but not latterly. During the autumn of 1871 felt out of health; complained of loss of appetite, etc. A red-coloured blotch then appeared on chest, and in about two weeks had spread over the entire body. He had been treated with arsenic, mercury, iodide of potassium, sulphur, etc., for some two to three months when I was asked to see him. I found him anxious; had a slight cough; urine high-coloured from urate of ammonia; skin of whole body red, dry, and covered by branny scales, which rapidly exfoliated. The hair was also falling out. Every day the bed was emptied of nearly a coal-bucketful of scales. The redness of the skin disappeared on pressure. The nails were easily broken, and of a dirty dry appearance. Without entering into further details I may say that the general symptoms were comparatively slight, compared with the extent of the disease. The treatment adopted was supporting diet, cod-liver oil, compound infusion of gentian and nitro-muriatic acid, and every second or third night a dose of compound jalap powder. Locally a liniment consisting of olive oil, lard, and oxide of zinc was smeared over entire body two or three times daily; subsequently nitrate of silver in sweet spirit of nitre being used to stimulate the more obstinate places. Mr. B. was able to go out in about six weeks, and returned to his business in about ten weeks. I have lately seen him; there are no symptoms of the disease returning. The palms of his hands are a little tender and hacked, for which I ordered him a pair of indiarubber gloves made by Wilmot, Holt, and Co. (Manchester and Belfast).

I am, &c., H. S. Purdon, M.D.,
Physician to the General and Skin Hospitals, Belfast.

5, College-square East, Belfast, April 9.

FAGGOT-VOTERS AT THE ROYAL ORTHOPÆDIC.

Letter from Mr. W. Adams.

[To the Editor of the Medical Times and Gazette.]

Sir,—Without desiring at present to make any observations upon the events which have recently occurred at the Royal Orthopædic Hospital, which have been warmly condemned by the Medical press and Professional opinion, and as to which I shall shortly ask for an authoritative judgment, I feel called upon to notice the statement made by Mr. Brodhurst, in a letter published in your journal of the 13th inst., that "prior to most of the annual and special courts, an active canvass for new governors has taken place." I can only say that I have no knowledge of any such practice, and that on no occasion whatever, since my connexion with the Hospital, have I directly or indirectly been instrumental in making a single new governor for the purpose of voting at any annual or special court.

I am, &c., Wm. Adams.

Henrietta-street, Cavendish-square, April 17.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 9.

T. B. Curling, F.R.S., President, in the Chair.

CASES OF ABDOMINAL ANEURISM TREATED BY PROXIMAL AND DISTAL PRESSURE.

A paper, by Dr. Walter Moxon, and Mr. Arthur E. Durham, was read, entitled "On a Case of Abdominal Aneurism cured by Compression of the Aorta." The patient, a comparatively healthy-looking young man, 27 years of age, presented himself among Mr. Durham's out-patients at Guy's Hospital on August 2, 1871. On examination he was found to be suffering from an abdominal aneurism of considerable size, the pulsation and intumescence of which were manifest to the eye as well as to the touch. He was recommended for imme-

diate admission, and was placed under the care of Dr. Moxon in the clinical ward. The aneurism could be distinctly felt over a space extending from rather less than a inch below the cartilages of the fixed false ribs above to a level with the umbilicus below, and from the right side of the median line across to about midway between the median line and the left border of the abdomen or rather further. Pulsation was full and strong, but could be controlled by careful and deep digital pressure. The patient was kept perfectly at rest in bed for eleven days, and on very spare diet. At 10.30. a.m. on August 14 (no food having been taken since the preceding evening) chloroform was administered, and Mr. Durham proceeded to compress the aorta on the proximal side of the aneurism by means of Lister's abdominal tourniquet. There was just room to get the pad of the tourniquet between the cartilages of the ribs and the aneurism. The tourniquet was screwed down very slowly, and carefully adjusted in position and direction until the pulsation of the aneurism as well as that of both femoral arteries was completely arrested. The lower extremities were enveloped in cotton-wool, and flannel and hot-water bottles were placed in the bed. The compression was absolutely maintained for ten hours and a half, the patient being all the time kept under the influence of chloroform. At the end of that period his general condition, as indicated by pulse and respiration, was such as seemed to render it undesirable to continue the treatment. The tourniquet was accordingly removed, and no more chloroform was administered. No pulsation of the aneurism nor of the femorals could be detected. A bright-red patch marked the spot where the pad of the tourniquet had compressed the skin. The lower extremities were cold, and marked here and there by purplish or livid patches, but they were in more favourable condition than they had appeared to be at an earlier period during the compression. In the course of a short time pulsation of the aneurism could be again detected; but the aneurism remained much smaller and harder than before the treatment. The patient passed a good night, and the next day had little or nothing to complain of except the exquisite tenderness of the skin at the compressed spot. There was no internal pain or tenderness, nor any indication whatever of mischief done to the visceral or other internal structures. It seemed remarkable that such severe treatment should be followed by so marked an absence of all serious disturbance, whether local or constitutional. No bad symptom of any kind arose. The aneurism gradually became firmer and smaller, and its pulsation less and less perceptible. At the end of rather more than a month, pulsation could no longer be detected. The femoral arteries, in which, as well as in the aneurism, pulsation had to some extent temporarily returned—had also ceased to pulsate; the aneurismal tumour gradually diminished in size; the patient recovered health and strength, and indeed was apparently in far better condition than he had been for a long time previously to his admission to the Hospital. He was presented for examination by the Fellows present. In commenting upon this case, the authors remarked that, so far as they were aware, it was only the second case of the kind upon record in which a similar method of treatment had been followed by similarly successful results. The first case occurred in the practice of Dr. Murray, of Newcastle (to whom they wished to ascribe all the credit of having initiated the method of treating abdominal aneurisms they had thus adopted). It appeared probable that in their case, as in that of Dr. Murray, the aneurism was connected with the aorta at or about, and probably involving, the inferior mesenteric. In such cases this method was most applicable. In another case, however, now under their care at Guy's Hospital, there was reason to believe that the aneurism was upon the superior mesenteric. Nevertheless, they hoped to succeed in applying this method, and with satisfactory result. Sphygmographic tracings were taken by Mr. Mahomed during an experimental attempt made by Mr. Durham to compress the aorta in the case referred to. Mere tracings showed in a most striking manner the effect produced upon the pulse at the wrist by compression of the abdominal aorta or immediately connected parts. In conclusion, the authors expressed their opinion that the method described should be carefully, but fully, tried in all cases of abdominal aneurism (few though such cases be) in which it may be found practicable to compress the aorta on the proximal side of the aneurism in such way and to such extent as to arrest its pulsation, and at the same time without the exercise of such force as might seriously damage the viscera or other internal parts. On anatomical grounds compression of the aorta on the distal side of an aneurism would not appear to offer promise of much success.

Mr. Thomas Bryant related a case of "Abdominal Aneurism treated by Distal Pressure, with Remarks." The patient was one of Dr. Pavy's, who asked Mr. Bryant to see the case with a view to treatment. It was a man, aged 30, with an abdominal aneurism in the epigastric region the size of a fist. Distal pressure was determined upon, as no other treatment was applicable. It was applied by means of a Lister's abdominal tourniquet, with the patient under chloroform. It was kept up for twelve hours, then removed for twelve hours, and reapplied for four hours; the treatment being given up as the man's powers seemed failing. He died eleven hours after the removal of the clamp. After death peritonitis was found to have been the cause of death from the bruising of the bowel and peritoneum by the clamp. An aneurism of the cœliac axis was present, which was filled with a perfect clot, evidently of recent date, but ante-mortem. The post-mortem was made by Dr. Moxon, whose report was read. In his remarks, Mr. Bryant pointed out how the danger of peritonitis seemed to be one that appertained to the application of pressure by an abdominal tourniquet under all circumstances, and was to be accepted as a danger which should always be considered. He dwelt upon the pathological fact, which the preparation and drawing from it taken from the patient illustrated, that a large abdominal aneurism may undergo mechanical closure by a clot from the application of distal pressure for twelve or sixteen hours. The case suggested the value of other forms of practice upon the distal side of an aneurism which are based upon the same principle, such as the temporary occlusion of an artery by ligature, acupressure-pins, or other means; for if, he remarked, pressure for a few hours upon the afferent or efferent artery of an aneurism—sufficient to arrest the flow of blood through its channel—is enough to bring about the mechanical closure of a sacculated aneurism by means of a clot, and consequently its cure, surely the application of other means which are calculated to fulfil the same purpose may be employed to effect the same end. He then alluded to Hunter's, Astley Cooper's, and Travers's temporary ligatures, and to Lister's carbolised catgut ligatures, which he regarded as temporary ligatures. He went on to show how contused arteries often became occluded ones, and that this was probably from some detachment of the inner coats. He suggested the adoption of some instrumental means by which these results were to be secured—by which the inner and middle coats of an artery might be divided and allowed to recurve without destruction of the external. He then alluded to the artery constrictor of Dr. F. Spiers, of New York, and shewed the instrument, stating that his own experiment had gone to prove the truth of Dr. Spiers's statement. He believed that we had in this instrument an element of usefulness that wanted working out. He concluded by showing how successful the distal treatment of aneurism had been under certain circumstances, and expressed a belief that it was a form of practice well worthy of renewed attention in cases where all other forms of practice were inapplicable.

(*To be continued.*)

EPIDEMIOLOGICAL SOCIETY.

Wednesday, February 14.

Dr. Edward C. Seaton in the Chair.

A paper by James Christie, M.A., M.D., Physician to the Sultan of Zanzibar, and to the Universities Mission, was read, entitled "Additional Notes on the Cholera Epidemics on the East Coast of Africa." In a previous paper read before the Society during session 1870-71, Dr. Christie had given an elaborate account of the prevalence of epidemic cholera on the East Coast of Africa. The present paper had for its object to correct certain dates in that paper, and convey additional information of the movements of the disease. The dates of the different recorded epidemics on the East Coast, are as follows:—First epidemic, December, 1836, to January, 1837; second epidemic, 1859 to 1860; third epidemic, 1865; fourth epidemic, 1869 to 1870. The chief interest of the present paper rested in the additional light cast upon the beginnings of the third and fourth epidemics. By carefully prosecuted inquiries among native traders on the mainland, it would appear that the epidemic of 1865 probably reached the East Coast from Berbera, on the south coast of the Gulf of Aden. The disease it is believed was introduced into Berbera about the same time that it was introduced into Makalla, on the south coast of Arabia. Makalla, it will be remembered, was the first definitely ascertained starting-point of the north-westward extension of the

epidemic of 1865. At the break-up of the Berbera fair, doubtless the malady followed the track of the great southern caravan route, across the Somali country to Gananah and Bardera, on the river Jubb. From Bardera, still following the trade route, cholera extended to Brava, on the East Coast, and thence it spread northwards to Merka and Mukdesha, and southwards as far as Mombassa. The fourth epidemic (1869-70) reached the coast from the interior of Africa. A large caravan which left Pangani for the Masai country in November 1868, reached its destination on the forty-ninth day of journeying, and then heard of a virulent disease which proved to be cholera, in the Somali country, to the north. The Masai had made a raid on the Somali, and the expeditionary party contracted the disease and brought it back with them into their own country. Subsequently the malady spread into the district intervening between the Masai and the East Coast, and appeared at Tanga and Pangani, and from these coast towns began that wide diffusion along the coast which Dr. Christie described in his first paper.

In the discussion which followed the first paper Mr. Netten Radcliffe suggested that the cholera prevalent in the Masai country at the close of 1868 and beginning of 1869 was the continuation of the epidemic of 1865-68 in Abyssinia, and which in 1868 was known to have spread into the Galla country, in the direction of Evarea, the great centre of commerce for this part of Africa and for the East Coast north of Zanzibar; and the further details given by Dr. Christie tend to confirm this suggestion.

OBITUARY.

GEORGE ANGUS, M.D.,

Died on the 7th instant at 13, Golden-square, Aberdeen, in the 78th year of his age. He was the son of the late Rev. Mr. Angus, minister of Botriphny. He was educated at Botriphny parish school, studied at Marischal College, finished his Medical studies in London, and went out to Bengal in the Medical service upwards of fifty years since. Shortly after his arrival in that country he joined the army, then engaged in active service against the Pindaris; and a hard schooling it was, for there was much and harassing work for the army, both in the way of fighting and of exposure to climate at all seasons. It was during these campaigns that cholera first made its appearance as an epidemic in India, and proved far more deadly to friends and foes than a hundred hard-fought battles. On the restoration of peace, Dr. Angus was appointed to the Medical charge of a civil station, which he held till his promotion, in 1836, to the rank of Surgeon. He was nominated in the course of his service to several important appointments, and for some years was Secretary to the Medical Board in Calcutta, the duties of which post he discharged in such a manner as to gain alike the entire confidence of the Government of India and the members of the Board—the then regulators of the Medical affairs of the Presidency—and of all the members of his own Profession with whom he was brought in contact. For several years he held the important position of Garrison Surgeon at Allahabad, which brought him into connexion with persons of all classes. His hospitality and kindness became almost proverbial among the numerous strangers who passed through the station. His sound judgment and enlarged experience rendered his Professional services highly valued. On leaving the station the inhabitants of all classes presented him with a handsome testimonial of their esteem. On his promotion to the rank of Superintending Surgeon—now called Deputy Inspector-General—he was appointed first to Benares and afterwards to Cawnpore, and eventually retired from the India Service in 1854. Since then he has resided in Aberdeen, where his generous kindness of heart and happy genial disposition have endeared him to a large circle of warmly attached friends. Dr. Angus took no leading part in public affairs; still, within his own sphere he invariably acted with independence and energy. For two years he was President of the Medical Society. He was manager of the Royal Infirmary and General Dispensary, and was for several years a member of the Parochial Board of St. Nicholas Parish. He was ever ready to support every scheme which tended to improve the condition of his fellow-men. Though he has been declining for some time past, it was only within the last few weeks that any alarm was felt for him; and there are many, both at home and in India, who will lament his loss. Dr. Angus, we may add, was never married.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 16th inst., viz.:—

Alliott, Alexander John, B.A. Cantab., Eccles, near Manchester, student of St. Thomas's Hospital.
Atkinson, John Charles, L.R.C.P. Edin. and L.S.A., Kew-green, of King's College.
Bird, Cuthbert Hilton Golding, B.A. Lond., Brunswick-square, of Guy's Hospital.
Birt, Ernest, Leamington, of the Birmingham School.
Blake, Frederick George, Bristol, of the Bristol School.
Coltart, William Wilson, Liverpool, of St. George's Hospital.
Cooke, Thomas, L.R.C.P. Edin., Ashton-under-Lyne, of the Manchester School.
Coute, Michael, M.D. Laval Univ. Quebec, of St. Thomas's Hospital.
Curtis, Arthur, Alton, Hants, of University College.
Dakeyne, Thomas Edward, Warslow, near Ashbourne, of the Westminster Hospital.
Eady, George John, L.R.C.P. Edin. & L.S.A., Chertsey, of King's College.
Emms, Alfred Wilson, Ilminster, of Guy's Hospital.
Evans, Francis Morse, Norwich, of St. George's Hospital.
Fayrer, Edward, L.R.C.P. Edin., Henley-in-Arden, of St. Mary's Hospital.
Hale, Charles Douglas Bowdich, Chepstow-villas, Bayswater, of St. George's Hospital.
Hemming, John Lamond, L.R.C.P. Lond., Great Portland-street, of St. George's Hospital.
Holmested, Perryman Wakeham, Bocking, Essex, of the London Hospital.
Jones, Henry William, L.R.C.P. Edin., Dyffryn, Merionethshire, of the Glasgow School.
Lawson, Thomas Cornelius, Kidderminster, of University College.
Lush, William John Henry, Yarmouth, Isle of Wight, of King's College.
Morrell, Robert Baker, L.R.C.P. Edin., Moulsford, Wallingford, of King's College.
Purcell, James George, L.R.C.P. Edin., Mottram, Cheshire, of the Manchester School.
Shemilt, Geo. Richard, L.S.A., Tean, Staffordshire, of University College.
Taylor, Charles Lamb, Newark, of University College.
Ticehurst, Charles Sage, L.R.C.P. Lond. and L.S.A., Hastings, of Guy's Hospital.
Tweedy, John, L.R.C.P. Lond., Stockton-on-Tees, of University College.
Wardale, Joseph Augustus William, L.S.A., Newport, Isle of Wight, of University College.
Williams, Henry, Nottingham, of Guy's Hospital.

The following gentlemen were admitted Members on the 17th inst., viz.:—

Bird, George Gwynne, Swansea, student of St. Mary's Hospital.
Breeze, Richard Goodwin, L.S.A., Euston-road, of University College.
Jackson, Francis Edward, L.S.A., Chertsey, of St. Bartholomew's Hospital.
Mahomed, Frederick Henry Horatio Akbar, L.S.A., Brighton, of Guy's Hospital.
Ridley, James Hutton Wilkie, Gateshead, of the Newcastle School.
Young, Thomas Frederic, Liverpool, of the Liverpool School.

Two candidates passed the examination in Surgery, and, when qualified in Medicine, will be admitted Members of the College, and seven candidates were referred to their Professional studies for six months. A Primary or Anatomical and Physiological Examination will commence this day (Saturday).

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, April 11:—

Saukey, Julius Gttaway, St. Bartholomew's Hospital.
Smith, Charles Wait, Jamaica, West Indies.

As Assistants in Compounding and Dispensing Medicines:—

Evison, William, South Lincolnshire.
Henry, Edward Lawrence, Lewisham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Barry, Michael J., L.R.C.S.I., L.K.Q.C.P.I., L.M.K.Q.C.P.I.—Medical Attendant to the Royal Irish Constabulary.

Blaia, Robert, M.B., C.M.—Senior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* Arthur W. Smith, M.B. Lond., resigned.

Blythman, Clement S., M.B., C.M., M.R.C.S. Eng.—Medical Officer to the Swinton District, Rotherham, Yorkshire.

Bodman, Joseph Baker, L.S.A.—Medical Officer of the Castor District, Peterborough (reappointment).

Dickson, George Tait, M.B., C.M.—Junior House-Surgeon to the Preston and County of Lancaster Royal Infirmary, *vice* Robert Blair, M.B., promoted to Senior House-Surgeon.

Divea, Thomas, M.D., M.R.C.S. Eng., L.S.A.—Medical Officer to the Railway District of Portsea, Hampshire.

Giab, Gabriel, M.D.—Medical Officer to the Parish of Row, Dumbartonshire.

Marshall, Frank, M.R.C.S.E. and L.S.A.—Medical Officer and Public Vaccinator for District No. 1 of the Sudbury Union, Suffolk, and Medical Officer and Public Vaccinator for the Eighth District of Thingoe Union, *vice* Mr. E. S. Stanley, resigned.

Nicholson, Dr.—Surgeon and Apothecary to Trim Gaol.

Smith, Wm. J., L.S.A.—Medical Officer to the Rawmarsh District, Rotherham, Yorkshire.

Stothard, W. J., L.R.C.P. Edin., M.R.C.S. Lond., L.S.A.—Medical Officer to the Camberwell Provident Dispensary.

Swan, William, M.B. Oxon, M.R.C.S. Eng.—House-Surgeon to the Seamen's Hospital, Greenwich.

NAVAL AND MILITARY APPOINTMENTS.

Medical.—Patrick Heelan, Surgeon to the *Ganges;* Samuel Grove, Surgeon to the *Excellent*.

Medical.—Surgeon-Major William Godfrey Watt, from the 3rd Dragoon Guards, to be Staff Surgeon-Major, *vice* Staff Surgeon James Landale, M.D., who exchanges; Surgeon James Hornidge Finnemore, from the 45th Foot, to be Staff Surgeon, *vice* George Whitla, appointed to the 45th Foot; Assistant-Surgeon George Whitla, from the Royal Artillery, to be Staff Surgeon, *vice* William Thomas Paliologus, placed upon half-pay; Staff Assistant-Surgeon Arnold Royle retires upon half-pay; Staff Assistant-Surgeon James M'Cully, M.D., resigns his commission; Staff Surgeon John T. Acheson and Surgeon Thomas Jameson, M.D., have been placed on the Retired List.

BIRTHS.

Bullock.—On April 9, at Overtown House, Spring-grove, the wife of Henry Bullock, F.R.C.S., of a son.

Gange.—On April 16, at Faversham, the wife of Frederick A. Gange, M.D., of a son.

Jackson.—On March 13, at Allygurh, North West Provinces of India, the wife of James R. Jackson, M.D., Civil Surgeon, of a son.

Morton.—On April 16, at 1, Greville-road, Kilburn, the wife of Dr. T. Morton, of a daughter.

Thorne.—On April 10, at 5, Waterloo-place, Leamington, the wife of Frederic Thorne, M.R.C.S., L.S.A., of a son.

MARRIAGES.

Bowkett—Davis.—On April 10, at St. Martin's-in-the-fields, Trafalgar-square, W.C., Thos. E. Bowkett, M.R.C.S. and L.S.A., East India-road, E., Surgeon to the Poplar Hospital, to Emily Eliza, twin daughter of George Davis, Esq., 32, Cranbourne-street, W.C.

Brave—Case.—On April 11, at St. Nicholas Church, Great Yarmouth, Hardwick Hubert Braye, M.R.C.S., L.S.A., of 15, New-road, Commercial-road, London, eldest son of Hardwick Braye, Esq., of Hastings, to Anna Mary, third daughter of Philip Case, Esq., of Great Yarmouth.

Day—Sheepshanks.—On April 13, at the Church of St. Michael and All Angels, Coventry, Francis Day, Surgeon-Major Madras Army, to Emily, youngest daughter of the Rev. T. Sheepshanks, Rector of St. John's, Coventry.

Ellis—Chapman.—On April 16, at St. James's, Piccadilly, J. Ellis, M.A. M.D., Surgeon Bengal Medical Service, to Rose, eldest daughter of the late Samuel Chapman, Esq., of Buenos Ayres.

Goodday—Richardson.—On April 11, at Fenny Bentley, near Ashbourne, Derbyshire, Horatio George Goodday, of Havre-de-Grâce, eldest son of Horatio Goodday, M.D., of Bayswater, to Jane, second daughter of the late Rev. Harling Richardson, Vicar of Onecote, Staffordshire.

Hetley—Benn.—On April 16, at the Church of the Holy Trinity, Whitfield, Northumberland, Frederick Hetley, M.D., of Norbury Lodge, Upper Norwood, to Mary Ann, second daughter of the late Thomas Benn, Esq., Captain R.N., of Greenbank, Cumberland.

Knox—Mogg.—On April 9, at the parish church, Clifton, George Knox, Esq., Deputy-Commissioner of Delhi, eldest surviving son of the late Superintending-Surgeon George Knox, H.M. Madras Army, to Edith Mary, only daughter of Michael Mogg, Esq., of Clifton.

Meredith—Mitchell.—On April 11, at St. Barnabas, Hornsey-road, James Meredith, of Kington, Herefordshire, to Winifred, eldest daughter of the late Thomas Henry Mitchell, M.R.C.S.E., of Holloway.

Moorhead—Gillman.—On April 11, at St. Thomas's Church, Dublin, William R. Moorhead, M.A., M.D., Benburb, county Tyrone, to Amelia Davis, only daughter of the late James Gillman, Esq., J.P., Oakmount, county Cork.

Payne—Tiley.—On April 11, at St. Mary's Church, Wallingford, Sydney Payne, only son of Robert Payne, Esq., J.P., of St. John's, Wallingford, to Marie Langley, eldest daughter of W. G. Tiley, M.R.C.S., and granddaughter of the Rev. John Langley, Rector of St. Mary's.

Rayner—Slack.—On April 11, at the Priory Church, Great Malvern, John Rayner, L.R.C.P., M.R.C.S., of Oakhayes House, Woodbury, Devon, to Susannah, eldest daughter of the late Rev. S. Slack, M.A., Oxon., formerly Head Master of the Grammar School, Bradford, Yorkshire.

Shortridge—Gard.—On April 10, at St. Mary's Church, Glasgow, John Shortridge, son of S. Shortridge, M.D., Greenock, to Martha Sarah, daughter of W. G. Gard, Esq., Breaston, Derbyshire.

Thomas—Banks.—On April 10, at the Church of the Holy Trinity, Brompton, Edwyn Thomas, Esq., barrister-at-law, Middle Temple, to Francis Maria, only surviving child of the late William Houghton Banks, M.D., R.N., of Vernon House, Ryde, Isle of Wight.

DEATHS.

Bartley, Charlotte O'Hara, widow of Alfred Collett Bartley, M.D., at Mitcham-green, on April 9, aged 76.

Bickerton, Thomas, F.R.C.S. Edin., L.S.A., at his residence, 82, Mount Pleasant, Liverpool, on April 13, aged 45 years.

Cockle, Elizabeth, of 9, Bolton-gardens, South Kensington, and Truro Lodge, St. Lawrence, relict of James Cockle, Surgeon, formerly of Great Oakley, Essex, at her residence in town, on April 5.

Caddock, Wm., M.D., of Dhurmsala, Punjaub, and of H.M. Bengal Army, on board the *Scotland*, off Cape St. Vincent, on March 30.

Guy, John, M.R.C.S., at 13, Golden-square, St. James's, on April 7, in his 74th year.

Harvey, Joseph Alfred Radcliffe, M.D., R.N., at Melita, Merton-road, Southsea, on April 11, aged 49.

Hovell, Arthur Dennis de Beadt, of New College, Oxford, and Lincoln's-inn, eldest son of Dennis de Beadt Hovell, Esq., at Five Houses, Clapton, Middlesex, after a short illness, on April 9, in his 21st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Hamadryad Hospital-Ship for Seamen of all Nations.—Port of Cardiff. Resident Assistant Medical Officer. Candidates must be unmarried, and must possess a Surgical qualification. Applications, enclosing testimonials, to be forwarded to David Roberts, Secretary, 17, Church-street, Cardiff, on or before Tuesday, April 30.

Dundee Royal Infirmary.—A qualified Medical man, to act as Joint House-Surgeon. Further particulars may be learned from the Secretary, D. Gordon Stewart, Esq., solicitor, 18, Meadow-side, Dundee, to whom applications, with testimonials, must be sent on or before May 1.

Echt, Aberdeenshire.—Medical Officer to the Parish of Echt.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

King's College.—Demonstrator of Practical Physiology.

Middlesex County Lunatic Asylum, Hanwell.—Medical Superintendent of the Male Department. Candidates must be Fellows, Members, or Licentiates of one of the Royal Colleges of England, Scotland, or Ireland, and duly registered in Medicine and Surgery. Copies (only) of testimonials, accompanied by a form (which will be forwarded on application), must be sent to Richard William Partridge, Clerk to the Visitors, on or before Saturday, May 4.

Naas Union.—Medical Officer for the Kilcullen Dispensary District. Applications, with qualifications required by the Poor-law Commissioners, and testimonials, will be received by R. West Manders, Esq., Hon. Secretary *pro tem.*, Dunshane, Brannockstown, Newbridge, up to noon on April 26.

Royal Albert Hospital, Devonport.—Resident Medical Officer. Candidates must be unmarried, and duly registered Medical Practitioners. Applications and testimonials to be sent to the Honorary Secretary, Alfred Norman, Esq., endorsed "Application for Appointment," on or before Saturday, April 20. Canvassing is strictly prohibited.

St. Petea's Hospital for Stone and Urinary Diseases.—House-Surgeon. Must be duly qualified. Further information may be obtained by addressing the Hon. Secretary, 54, Berners-street, W. Applications should be sent in on or before Friday, April 19.

Skibbereen Union.—Medical Officer for the District of Aldborough. Candidates must be duly qualified. Applications, with testimonials, to be forwarded to Thos. A. McCoy, Clerk to the Guardians, Beverley, on or before Thursday, May 2.

Staffordshire General Infirmary.—House-Surgeon and Secretary. Candidates must appear at the Infirmary on Monday, April 22, at one o'clock. Candidates must be Members of one of the Royal Colleges of Surgeons of London, Dublin, or Edinburgh, and possess a qualification also in Medicine which will entitle to register. Further information may be obtained from the Secretary.

Walsingham Union.—Medical Officer. Must be duly qualified in accordance with the General Orders of the Local Government Board. Applications, with testimonials, to be forwarded to J. Wright, Clerk, Bridge-street, Fakenham, on or before Tuesday, April 30, and endorsed "Application for the Office of Medical Officer."

Wandsworth and Clapham Union.—Medical Officer for the Eastern District of the Parish of Battersea. Applications and testimonials to be sent to John Sanders, Clerk to the Guardians, Union Offices, East-hill, Wandsworth, on or before Tuesday, April 30.

Westbourne Provident Dispensary and Maternity, 165, Queen's-road, Bayswater.—Honorary Dental Surgeon. Candidates must send in their applications, with testimonials, to the Hon. Secretary, at the Dispensary, on or before Saturday, April 20.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Atherstone Union.—Mr. McBeath has resigned the Polesworth District; area 14,410; population 4649; salary £60 per annum.

Bideford Union.—Mr. Louis R. Cooke has resigned the Hartland District; area 21,953; population 2950; salary £37 per annum.

Congleton Union.—The Congleton District is vacant; area 18,079; population 19,119; salary £90 per annum.

Guildford Union.—The Woking District is vacant; area 8190; population 3819; salary £80 per annum.

Huddersfield Union.—Mr. J. Clough has resigned the Woodhouse District; salary £12 per annum. Mr. J. Mackintosh has resigned the Lindley-cum-Quarmby District; area 2671; population 7660; salary £20 per annum.

Mere Union.—Mr. Wm. N. Marshall has resigned the Second District; area 16,156; population 3715; salary £105 per annum.

Newcastle-upon-Tyne Union.—The Sick District is vacant; area 176; population 16,145; salary £50 per annum.

Newent Union.—Mr. J. C. Cooke has resigned the Dymock District; area 13,624; population 3098; salary £55 per annum—and the Workhouse; salary £15 per annum.

Stafford Union.—The Stafford District is vacant; area 1282; population 11,075; salary £50 per annum—also the Workhouse; salary £35 per annum.

Stokesley Union.—The Hutton District is vacant; area 19,109; population 2405; salary £25 per annum.

APPOINTMENTS.

Alderbury Union.—Frederick C. Bennett, M.R.C.S., L.S.A., to the Workhouse and the Fourth District.

Berwick-upon-Tweed Union.—James Lambie, M.B. Glasg., L.F.P. and S. Glasg., to the Islandshire District.

Caxton and Arrington Union.—Henry F. La Touche White, L.R.C.S. Ire., L.K. & Q.C.P.I., to the First Caxton District.

Gainsborough Union.—Thomas Stones, L.R.C.P. Edin., L.R.C.S. Edin., to the Haxey District.

Portsea Island Union.—Thomas Diver, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Railway District.

Settle Union.—Edmund Tatham, B.M. & M.C. Edin., to the Bentham District.

Stockton Union.—Finlay Munro, M.B. and C.M. Glasg., to the Norton District.

Windsor Union.—Wm. T. Drew, M.R.C.S. Eng., L.S.A., to the Second District.

THE PRINCESS ROYAL.—Dr. Cream has left London for the New Palace at Potsdam, to be present at the confinement of her Imperial Highness the Crown Princess of Germany, which is shortly expected.

DR. JAMES Y. TOTHERICK, having been appointed Physician to the South Staffordshire General Hospital, Wolverhampton, has been publicly presented with a gold lever watch, a purse of money, and a timepiece for Mrs. Totherick, of the value of £100, by his friends at Sudbury.

CAMBRIDGE MEDICAL EXAMINATIONS. — Intending candidates for examinations for Medical and Surgical degrees in the present term at the anatomical schools are required to signify the same on or before May 13. The first and final examinations for the degree of M.B. will begin on Monday, May 27, at 9 a.m. The second examination for the M.B. degree, and the examination for the degree of Master in Surgery, will begin on Monday, June 3, at 9 a.m.

MR. ROBERT W. KEATE.—The Queen has approved the appointment of the above gentleman to be Governor-in-Chief of the West African Settlements. It may not be generally known that the new Governor is a son of the late Mr. Robert Keate, Surgeon to St. George's Hospital, who filled the office of President of the Royal College of Surgeons of England in the years 1830, 1831, and 1839.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the next meeting of this Association, which will be held at the Scottish Corporation Hall, Crane-court, Fleet-street, on Saturday, April 20, at 7.30 p.m. (Robert Druitt, M.R.C.P., F.R.C.S., in the chair), Dr. C. J. B. Aldis will read a short paper "On a Sudden Outbreak of Small-pox in Belgravia in 1871, and on the necessity of Amending the 38th Section of the Sanitary Act, 1866"; and J. Netten Radcliffe, Esq., will read a paper, entitled "Cholera Prospects."

RADCLIFFE STUDENTSHIPS have been awarded to Mr. Francis J. Carey, of Guy's Hospital, and Mr. C. R. B. Keetley, of St. Bartholomew's Hospital, on the recommendation of Sir James Paget, D.C.L., Sir William Gull, D.C.L., and Dr. John Ogle, M.D.; and to Mr. Farington M. Granger, of the Hospital of Leeds, on the recommendation of Mr. T. P. Teale, M.A., M.B.

THE Medical School in Paris was reopened on Monday, and Professor Dolbeau's lecture was delivered without disturbance. Sixty students attended.

THE last returns of the Registrar-General on the public health show the following mortality in some of the large cities in England and on the Continent:—London, 25 per 1000; Portsmouth, 17; Norwich, 26; Liverpool, 26; Manchester, 30; Salford, 38; Oldham, 24; Newcastle-upon-Tyne, 26; Bradford, 28; Paris, 28; Rome, 40; Berlin, 33; New York, 33; Bombay, 25; Madras, 32.

THE Commander-in-Chief on the East India Station reports that cholera has entirely disappeared from H.M.'s ship *Daphne* since her arrival at Trincomalee, and that she was released from quarantine at that place at the beginning of March.

A SUPERANNUATION of £35 per annum has been voted by the St. Marylebone Board of Guardians to Mr. Alfred Elkins, late Medical Officer of the St. Mary's District. Mr. Elkins had held the office for fifteen years.

VARIOUS cases of poisoning by vanilla ices which have taken place for some time past in Altona, Munich, Vienna, and other places are being discussed in the German newspapers. The poison in the vanilla, one Doctor says, is produced by the use of cashew-nut oil to besmear the vanilla pods.

PRESENTATION.—Mr. Wright Allen has been presented, by the Arnold United Independent Order of Odd Fellows, with a case of spoons and forks, accompanied by a suitable address.

PROFESSORSHIP OF CHEMISTRY AT OXFORD.—This important office is announced to be filled up in Act Term, and applications for the appointment are to be made to the President of Magdalen College, Oxford, on or before May 18. The electors are the Chancellor of the University of Oxford, the Visitor and President of Magdalen College, Oxford, and the President of the Royal Society, and of the College of Physicians, London. Mr. A. G. Vernon Harcourt, M.A. Christ Church, Oxford, Dr. Lee's Reader in Chemistry at that University, is spoken of as the probable successor of Sir Benjamin Brodie in this office.

THE PUBLIC HEALTH BILL.—On Tuesday, at the meeting of the Central Chamber of Agriculture, it was resolved to insist on the preservation of local self-government and such a degree of independence of local action as can alone insure the efficient administration of the law. As the provisions of this Bill do not apply to the metropolis, the local bodies of London will not be affected by its proposals.

INFANT MORTALITY IN NEW ZEALAND.—Infants born in Christchurch during the autumn very often die. Owing to the flatness of the site of the town, it is almost impossible to get a proper system of drainage, and the arrangements seem very bad, if you are to judge from the evil smells which are abroad in the evening. Children who are born on a station, or taken there as soon as possible, almost invariably thrive, but babies are very difficult to rear in the towns. If they get over the first year they do well, and I cannot really call to mind a single sickly or even delicate-looking child among the swarms which one sees everywhere.—*Lady Barker's "Station Life in New Zealand."*

THE RATIONALE OF A LARGE FEE.—Frederick Jäger, the celebrated oculist of Vienna, having operated with success for cataract on the old Servian Prince Milosch Obrenowitsch, received the princely fee of 2000 ducats, besides a present of a costly jewel for his wife. Some years afterwards he operated with equal success upon the other eye, for which, however, he received only 1000 ducats. Dining with the Prince some time afterwards, Jäger jocularly alluded to the difference of the two fees. "My dear Jäger," replied the old Prince, "it is natural enough that I should pay you the 2000 for a successful operation on the first eye, and only 1000 for that on the second; but if I had a third to be operated upon, I should most certainly have also given you 2000 ducats for the second operation."

EXAMINATION QUESTIONS.—The following are copies of the questions on Surgical Anatomy and the Principles and Practice of Surgery and Medicine submitted to the candidates at the Pass Examination for the Diploma of Membership of the Royal College of Surgeons, which was brought to a close on the 17th inst.:—1. How would you distinguish, Surgically, chronic induration of the breast from scirrhus? What are the microscopic appearances by which each is characterised. 2. Describe the operation of excision of the elbow-joint, and state under what circumstances it may be required. 3. What treatment should be adopted in a case of incised wound of the cornea with protrusion of the iris? Mention the consequences which may ensue, and the proper mode of dealing with them. 4. What are the causes which may impede the union of a fracture of a long bone? Describe the modes of treatment which might be resorted to in order to promote the cure of an ununited fracture. 5. Describe deligation of the right carotid artery in the first part of its course, giving the exact relations of the parts concerned in the operation. 6. Mention the different forms of nævus, and the appropriate modes of treatment. 7. Describe a case of paralysis of the facial nerve, and mention the causes upon which it may depend, and the treatment you would adopt for its relief. 8. What are the circumstances which would induce you to have recourse to thoracentesis in a case of effusion in the pleural sac? State how you would perform the operation, and the changes that would follow it, supposing the case to terminate in cure. 9. Write prescriptions in Latin in full, and the directions in English, for a diuretic mixture and a purgative powder, and give the compositions and doses of the following preparations in the British Pharmacopœia:—Pulvis jalapæ compositus; mistura ferri composita; tinctura camphoræ composita; liquor morphiæ hydrochloratis.

THE Monthly Return of the Births, Deaths, and Marriages registered in the eight principal towns of Scotland, published by authority of the Registrar-General, states that during the month of March, 1872, there were registered in the eight principal towns of Scotland the births of 3425 children, of whom 1755 were males and 1670 females. Of these, 3156 were legitimate and 269 illegitimate, being in the proportion

of one illegitimate in every 12·7 births, or 7·8 per cent. of the whole as illegitimate. In Dundee, 5·5 per cent. of the births were illegitimate; in Perth, 5·6; in Greenock, 6·1; in Paisley, 6·2; in Leith, 6·5; in Edinburgh, 7·9; in Glasgow, 8·6; and in Aberdeen, 10·1 per cent. 2662 deaths were registered in the eight towns during the month, of whom 1311 were males and 1351 females. Allowing for increase of population, this number is 271 under the average for March during the last ten years. The annual rate of mortality was 22 deaths per thousand persons in Dundee, 23 in Perth, 24 in Paisley, 25 in Aberdeen, 28 in Leith, 29 in Greenock, 31 in Glasgow, and 35 in Edinburgh. Of the 2662 deaths registered, 1037, or 39 per cent. were of children under 5 years of age. In Perth, 12 per cent. of the persons who died were under 5 years of age; in Edinburgh, 29; in Aberdeen, 32; in Paisley and in Leith, 33; in Dundee, 40; in Glasgow, 45; and in Greenock, 46 per cent. The epidemic and contagious class of diseases proved fatal to 735 persons in the eight towns, and constituted 27·6 per cent. of the total mortality. In consequence, however, of the prevalence of small-pox, and also to some extent of scarlatina in Edinburgh, and of small-pox in Leith, this rate was exceeded in both of these towns, the proportion of zymotic deaths being 42·8 per cent. in Edinburgh, and 48·2 per cent. in Leith. Small-pox was again the most fatal of the epidemics, having caused 244 deaths, or 9·2 per cent. of the mortality. In Edinburgh this disease continued as fatal as during the previous month; but is on the decrease in Aberdeen, Leith, and Dundee, where respectively there were recorded 17, 37, and 24 deaths, against 30, 52, and 74 deaths during February. No deaths from small-pox were recorded in Paisley or Greenock. Hooping-cough was the next most fatal of the epidemics. Fever caused 81 deaths, or 3·0 per cent. of the mortality. Of these, 35 were tabulated as typhus, 37 as enteric, 7 as relapsing, 1 as simple continued, and 1 as infantile remittent fever. The month has been on the whole warm and dry, especially in the earlier part of the month, when the temperature was much above the average, and the rain extremely small; but this was modified by a change, in both respects, towards the end of the month, which was cold and stormy, with snow and rain. Still the mean temperature exceeded the average by 1·7°, and the quantity of rain was very nearly the same as the average. The mean temperature was greatest at Leith (43·2°), and least at Aberdeen (41·2°). The greatest amount of rain fell at Paisley, (3·90 inches in 11 days), and the least at Aberdeen (2·28 inches in the unusual number of 29 days).

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon.*

Dr. Junker's paper in our next.

Dr. Christie's interesting letter next week.

Dr. A. P. Stewart.—We are sorry that we cannot publish Dr. A. P. Stewart's letter this week.

Belfast.—Dr. T. Reade's interesting communication shall be inserted as soon as possible.

Midwives.—We have received a copy of the question proposed at a late examination of midwives by the Obstetrical Society, which are few and sensible.

Malaria.—The writers who deny its existence are Menzi and Oldham. For evidence of the sort you require consult Baudens. MacCulloch and La Roche are also well worth reading.

Dr. E. Symes Thompson will deliver the Gresham Lectures on April 25, 26, 27, and on May 30 and 31, at the Gresham College, Basinghall-street, E.C., at 7 p.m.

Avis.—In Copland's Dictionary, under the heading "Idiosyncrasy."

A M.D.—Yes, by ballot.

Liverpool.—The *Daily Courier* of Tuesday last contains a well-written and able article on "The Examination of Midwives," as published in a circular by the Obstetrical Society of London. The writer in the *Courier* advocates the establishment of these examinations, and points how they may tend, in more ways than one, to the public safety and public morality.

A Surgeon-Major writes (alluding to the cholera epidemic in Bombay)—"That the military cantonments in India are so frequently ravaged by cholera is due to the fact that their water-supply continues in its former filthy state. Thanks to the counsels of the late Lord Mayo, projects are now under consideration for remedying the defect. It was left for the practical mind of Lord Mayo to discover that reform of the water-supply was the most essential of all the sanitary improvements required in India."

Peregrinus.—Dr. Velten, late of Aix-la-Chapelle, has removed to Wiesbaden, where he will practise for the future.

Scarborough.—It is not necessary to enter into the controversy. It is quite certain, by whatever name the complaint may be called from which Miss Rose Constable suffered, the vaccination had nothing whatever to do with its cause or its progress. We think the plaintiff in the late action conducted himself with dignity and moderation, and that he is entitled to the respect of his Professional brethren and the public.

Ma. Baker Brown.

A fund is being raised on behalf of Mr. Isaac Baker Brown, who is completely prostrated by paralysis. He is also in great pecuniary distress.

Fourth List of Subscriptions.

	£	s.	d.
Amount previously advertised 197	15	0	
An Old Patient in Cheshire	20	0	0
Col. Tomkinson, Willingtons, Cheshire	10	0	0
Rev. J. Hill, Wiverton, Cheshire	6	0	0
E. P.	5	0	0
Dr. Waters, Chester (per Mr. J. Harrison, Chester)	2	2	0
Messrs. Maw, Son, and Thompson	2	2	0
Mr. Edward S. Haviland...	1	1	0
Mr. Thomas Ballard ...	1	1	0
Dr. E. S. Willett	2	2	0
Mr. J. T. Propert	1	1	0
Mr. George Gregson ...	1	1	0
Dr. Walter Bryant ...	1	1	0
A. B. W.	1	1	0
Dr. Norton	1	1	0
Dr. Algernon Norton ...	1	1	0
Dr. John Waggett ...	1	1	0
J. S. T.	0	10	0
Dr. Fox Grosvenor ...	1	1	0
Dr. Edmund Nash ...	1	1	0
Mr. John Morgan	1	1	0
Mr. Edwin Humby ...	1	1	0
Dr. Drury Lavin, Bushey	1	1	0
Dr. Neale, Bury St. Edmunds	2	2	0
Mr. Parker Young ...	2	2	0
Mr. Tomes	1	1	0
Mr. J. S. Turner	1	1	0
Dr. Edward Smith ...	1	0	0
Dr. Protheroe Smith ...	2	2	0
Mr. J. T. Musgrave ...	2	0	0
Two Friends (per Mr. J. T. Musgrave)	2	0	0
Dr. W. H. Day	1	1	0
Dr. Peter Allen	2	0	0
Dr. Walker, Peterborough	1	1	0
Mr. George Vaughan ...	5	0	0
A Friend	1	0	0
Mr. Benjamin Miller, Denmark-hill...	1	1	0

The treasurers are Dr. Forbes Winslow, 23, Cavendish-square, and Dr. Charles Cogswell, 47, York-terrace, Regent's-park, to whom subscriptions may be sent.

Corrigendum.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I regret to find an error in a letter of mine published in your journal of April 6—"In conclusion, I would mention that the window-tax did much to improve the ventilation of houses." It should be, of course, "the *abolition* of the window-tax did much to improve the ventilation of houses."

I am, &c.,
D. Osborn.

2, Anglesea-place, Southampton.

"The Medical Directory."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Your Reviewer has fallen into an unaccountable error. He says (p. 443), "It has always been a bore to turn to the Provincial Directory for a name which should have been included in the Metropolitan one, and we would strongly urge the editor of the old 'Medical Directory' to include within his metropolitan area all gentlemen practising within the twelve miles radius."

If your Reviewer will examine "The Medical Directory" for the present year he will find that the London portion of the work includes all gentlemen practising within the Metropolitan and Suburban Postal Districts.

We are, &c.,
The Editors of "The Medical Directory."

English Microscopes.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have only just read the article on foreign microscopes in the *Medical Times and Gazette* of March 30; and without any desire to depreciate the merits of the same, I must say that the statements of comparative cost and utility can only apply to some years back, and certainly not to the present time. The writer of the article cannot have recently examined the low-priced microscopes of some of the London makers, myself included, and I should have much pleasure in giving him an opportunity of testing the same, when I think he would admit that an Englishman can spend his money in his own country and reap certain advantages at the same time.

I refrain from more detail, so as not to advertise myself, but shall feel obliged by a notice of my protest.

I am, &c.,
157, Great Portland-street, W., April 10. Chas. Collins.

Pensions to Poor-law Medical Officers.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I saw in the Parliamentary news a few days since that the question was asked why Mr. Gruble, of Warminster, did not have a pension. It appears that the matter was brought before the guardians, and that they rejected it by a large majority, saying they thought he was still fit to work. Do the guardians of unions generally only intend to give pensions to those who are hopelessly diseased, and who cannot do another day's work, and must die soon, after the same principle that they get rid of paupers? I should think twenty-seven years, or even twenty years, quite long enough for any gentleman to have slaved for a Poor-law Union, and if he has done his duty it is quite certain he has not made anything out of it. At the present time it appears that Poor-law Medical Officers are expected to work hard for the most absurd payment, to do all sorts of Medical charity that ladies and ratepayers wish them to do, and at the end they are to die broken down with hard work, and perhaps for the last few months of their life the generous guardians may give them a mite to keep them from starvation.

I think Dr. Rogers has intended to do much for the Profession, but he and the Association have failed in not making the pension a first consideration. I believe now it is not too late to get Mr. Stansfeld to introduce a clause into his Bill to grant pensions out of the Consolidated Fund to Poor-law Medical Officers of twenty years' standing; and if they gave the whole of the paltry salary they now give them it would not be too much for a pension.

At all events, I hope Mr. Stansfeld, who appears kindly disposed, will not allow this session to pass without getting a Bill through the House,

empowering the Local Government Board to grant pensions to Poor-law Medical Officers of twenty years' standing, quite irrespective of age or ill-health, to be paid by the Government, and not by the guardians, but that if necessary every union should contribute a small sum towards the expense, which would really be a very small item; and I feel certain that no member of the Legislature with any kind or proper feeling would oppose it. I therefore hope that before Mr. Stansfeld's Sanitary Bill has become law an enactment will be passed granting Government pensions to the overworked, ill-paid, and anubbed Poor-law Medical Officer; and I think it is the duty of every one of them immediately and during the next week to petition Mr. Stansfeld on the subject.

Dr. Lush and Dr. Brady are always at their post, and I hope they will kindly use their influence and urge on the President of the Poor-law Board the necessity of the measure, as I am quite sure it will benefit the pauper as much as the Medical Officer, inasmuch as from my experience of what I have seen of the Surgeons of unions, they are not nearly so fit at 50 years of age to give the same attention to their patients as they were at 25; and as far as allowing men of very old age to attend paupers, the thing is preposterous—they cannot be attended to properly. I am, &c.,

Sloane-street, April 16. J. Colville.

COMMUNICATIONS have been received from—

Mr. Ernest Morgan; Dr. Purdon; Dr. W. Bryce; Mr. C. Collins; Sir John Bennett; Mr. H. Osborn; Messrs. A. and C. Black; Dr. G. Buchanan; Dr. Imray; Mr. T. C. White; Dr. Forbes Winslow; Mr. H. Morris; Mr. J. Chatto; Mr. H. Aanott; Dr. Sinoleton; Dr. Vinen; Dr. Stevenson; Dr. Aldis; Mr. T. Piper; Dr. N. Geisse; Mr. Fiodian; Mr. J. Colville; Dr. T. Reade; Mr. Churton; Dr. Massey; Dr. A. P. Stewart; Dr. A. Chaistie; Dr. Hermann Weber; Mr. Teevan; Professor Flower; Mr. T. M. Stone; Mr. Poole.

BOOKS RECEIVED—

Dimostrazione di una Nuova Importantissima Virtù Medicamentosa, del Dottore Angelo Monteverdi—Miller's Elements of Chemistry, part i.—Red-cross Operations in the North of France, 1870-72—The Provident System of Medical Relief impartially considered—On the Uses and Derangements of the Glycogenic Function of the Liver, by Dr. G. M. Smith—The Teeth and How to Save them, by Dr. L. P. Meredith—Cumberland and Westmoreland Lunatic Asylum Report.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmaceutical Journal—Aberdeen Journal—Micrographic Dictionary, parts iii. to vii.—Scarborough Express—The Clinic—The Transactions of the New York Academy of Medicine, vol. iii., part 2—Philadelphia Medical Times—Liverpool Daily Courier.

APPOINTMENTS FOR THE WEEK.

April 20. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Association of Medical Officers of Health, 7½ p.m. Dr. C. J. B. Aldis, "On a Sudden Outbreak of Small-pox in Belgravia in 1871, and on the Necessity of Amending the 38th Section of the Sanitary Act, 1866." Mr. J. Netten Radcliffe, "Cholera Prospects."

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Star Depths."

22. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Dr. Prosser James will show a new description of Spray Atomiser. Dr. J. Astley Bloxam, C.C., "On Cystic Disease of the Breast, with two Specimens in the Female and one in the Male." Dr. Semple, "On Diphtheria."

23. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Dr. Guy, "On Statistics, Social Science, and Political Economy."

Royal Medical and Chirurgical Society, 8½ p.m. Dr. C. T. Williams, "On the Results of Warm Climate in the Treatment of Pulmonary Consumption as exemplified by an Analysis of 251 Cases."

24. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Society of Arts, 8 p.m. Meeting.

25. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Light."

26. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Tilbury Fox will exhibit a patient suffering from Lepra Anæsthetica. Dr. Anatie will read a paper on a "Case of Lepra Anæsthetica." Dr. Andrew, "On a Case of Unusual Daily Range of Temperature associated with Vegetations on Mitral Valve and Infarction of Spleen." And other Papers.

Quakett Micaoscopical Club, 8 p.m. Mr. J. G. Waller, "Observations on Fresh-water Sponges."

Royal Institution, 9 p.m. Prof. Blackie, "On the Genius and Character of the Modern Greek Language."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 13, 1872.

BIRTHS.

Births of Boys, 1334; Girls, 1240; Total, 2574.
Average of 10 corresponding weeks, 1862-71, 2104·7.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	780	690	1470
Average of the ten years 1862-71	762·0	728·8	1490·8
Average corrected to increased population	...	...	1610
Deaths of people aged 80 and upwards	...	...	54

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	2	12	3	2	15	1	3	1	1
North ...	751668	11	25	8	1	28	...	2	1	2
Central ...	333887	1	6	...	..	12	1	1	...	...
East	638928	22	11	6	1	19	...	...	1	3
South	966132	13	12	9	2	26	...	6	1	4
Total	3251804	49	66	26	6	100	2	12	4	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·972 in.
Mean temperature	51·4°
Highest point of thermometer	69·9°
Lowest point of thermometer	32·2°
Mean dew-point temperature	42·9°
General direction of wind	Variable
Whole amount of rain in the week	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 13, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending April 13.	Deaths Registered during the week ending April 13.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2574	1470	69·9	32·2	51·4	10·78	0·05	0·13
Portsmouth ...	115455	12·1	107	49	64·8	31·2	49·8	9·89	0·07	0·18
Norwich	81105	10·9	52	38	68·0	32·5	48·1	8·94	0·12	0·30
Bristol	186428	39·8	136	88	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	55	33	70·4	36·2	49·5	9·72	0·02	0·05
Birmingham ...	350164	44·7	295	136	70·0	35·6	50·3	10·17	0·20	0·51
Leicester	93143	31·0	82	47	73·7	31·5	50·1	10·06	0·10	0·25
Nottingham ...	88225	44·2	60	48	71·6	32·3	49·4	9·66	0·07	0·18
Liverpool	499897	97·9	397	243	67·2	42·2	50·0	10·00	0·07	0·18
Manchester ...	352759	78·6	308	203	70·4	36·2	50·5	10·28	0·26	0·66
Salford	127923	24·7	142	76	69·5	36·3	49·1	9·50	0·25	0·63
Oldham	84004	20·2	62	48	...	...	...	...	...	...
Bradford	151720	23·0	145	100	66·0	39·0	49·9	9·94	0·08	0·20
Leeds	266564	12·4	184	159	70·0	37·0	50·2	10·11	0·00	0·00
Sheffield	247847	10·9	207	141	68·0	36·0	50·6	10·33	0·13	0·33
Hull	124976	35·1	108	48	69·0	32·0	48·6	9·22	0·05	0·13
Sunderland ...	100665	30·4	71	40	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	75	62	...	...	...	...	...	...
Edinburgh	205146	46·3	138	121	63·0	31·0	49·8	9·89	0·00	0·00
Glasgow	489136	94·8	437	312	...	...	...	...	...	...
Dublin	310565	31·9	165	250	65·9	31·2	50·5	10·28	0·01	0·03
Total of 21 Towns in United Kingd'm	7394345	34·0	5800	3712	73·7	31·2	49·8	9·89	0·09	0·23

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·97 in. The highest was 30·30 in. at the beginning of the week, and the lowest 29·61 in. on Friday at noon.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

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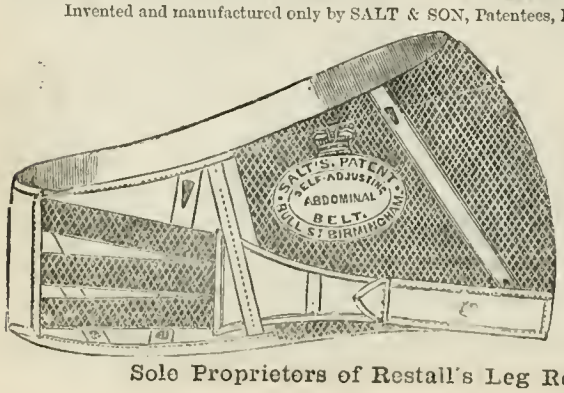

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Vide "The Lancet," July 8, 1871.

ORIGINAL LECTURES.

LECTURES ON
EXCISION OF THE HIP-JOINT.

By HENRY HANCOCK, V.P.R.C.S.E.,
Senior Surgeon to Charing-cross Hospital.

(*Continued from page* 427.)

When the opening occurs in the groin, the existence or non-existence of perforation of the acetabulum may often be ascertained by the introduction of a probe slightly curved into the opening, and directing its point downwards and outwards. It may thus be passed through the perforation into the joint. At the same time we must not overlook the possibility of mistaking either disease of the sacro-iliac synchondrosis or pelvic cellulitis for disease of the hip-joint. I have seen two cases of this latter affection—"pelvic cellulitis"—which had proceeded to suppuration, and in both the matter had found exit by the anterior inferior spinous process of the ilium. In both the symptoms and progress so closely resembled caries of the hip-joint, that in both instances I was called in by the gentlemen in attendance for the latter complaint. Curiously enough, the patients assigned the same cause for the mischief. The one lady resided in the neighbourhood of Great George-street, Westminster, the other in Piccadilly, and they both ascribed the malady to having, shortly after a confinement, sat for some time upon a bench in the park. They were both taken with a chill the same evening, followed by pain in the groin and neighbourhood of the joint, fever, etc. When I saw the first of these patients—and the description of one will suffice for both—I found her propped up in bed extremely emaciated, perspiring profusely, and pulse considerably above 100. She could not straighten the limb on account of pain, neither could she bear the slightest movement from the same cause, the pain being referred to the inner side of the knee. There was an opening in the groin close to the anterior inferior spinous process, from which a continuous and profuse discharge was kept up. I at first thought that this was a case of hip-joint disease with pelvic complication, but by careful examination with a probe and of the joint under chloroform convinced myself that the joint was uncomplicated; and the patient's death shortly afterwards enabled us to ascertain the correctness of this view, the joint being found perfectly healthy, the deceptive symptoms being due to the mischief going on beneath the pelvic muscles.

The second lady, to whom I was called very shortly after the former, presented almost the identical train of symptoms. There was the opening in the groin, the inability to straighten the limb, the constant and intense pain in the knee, aggravated on the slightest movement, the emaciation, etc.; but the same absence of joint disease. From my experience of the former and the desperate condition of the present patient, I gave a very unfavourable opinion of the probable result of the case—in fact, I did not think it possible she could survive. This was twelve years ago, and I only saw the patient once. To my great surprise, a few weeks since she called upon me to consult me upon some other malady totally unconnected with the former, from which she had gradually but, after some months, completely recovered, no longer having any difficulty or pain in straightening the limb or in walking.

In some cases an abscess forms in the pelvis before actual perforation of the acetabulum occurs, though in all probability depending upon disease going on in that cavity. In such cases, should the connexion be clearly made out, and circumstances warrant operative interference, the floor of the acetabulum may readily be perforated by a trephine, and any amount of the acetabulum removed by a blunt-pointed metacarpal saw. So, likewise, in those cases in which there is neither pelvic abscess nor perforation, but extensive disease of the acetabulum, I cannot see the objection to the operation. Here we have a patient actually dying; we know that an operation holds out the only chance of life. There never was a greater mistake than that made by Mr. Knox when he asserted that the pelvic portion of the hip-joint is beyond the reach of excision. Nothing can be more contrary to fact. The whole of the acetabulum is reached with the greatest ease, and may be removed without penetrating the cavity of the pelvis at all or injury to the parts contained therein. The whole operation is performed external to the obturator fascia and the levator ani muscle, and is consequently so far extra-pelvic; and the operation is still more easily performed when pelvic abscess is present, for then the obturator fascia is not only detached from the bone and thickened, but there is usually a considerable space between the two.

I was led to the foregoing conclusions by the study of the following case, which most incontestably proves that if the regulations I attempted to combat in 1857, as now, were right, I was as indubitably wrong in even proposing, much less attempting, the operation. In fact, according to these laws, it ought never to have been attempted at all, as by so doing not only was one, but the whole of them violated. The head of the bone was not dislocated; the acetabulum was extensively diseased and perforated, and there was pelvic abscess:—

Timothy D., aged 14, admitted, under my care, into the Charing-cross Hospital in July, 1856, with disease of the hip-joint. Five years before, observing a swelling in his groin, he attended the Middlesex Hospital, but got worse, and was made an in-patient. He remained there five months. Two years afterwards abscesses formed around the joint, and in the early part of 1855 he first came under my care, and remained in the Hospital three months, when he left apparently cured. He continued able to walk for ten months, when he was attacked with severe pain in his knee, which increased so much that, upon application, I at once admitted him into the Hospital. Shortly afterwards abscesses formed around the joint, opening behind the trochanter and also low down on the back of the thigh; and subsequently an abscess burst in the groin, and a probe introduced into this opening passed readily into the pelvis. He in the course of time became so emaciated and worn out with the profuse discharge, night-sweats, loss of appetite, etc., that it was evident he could not long survive if something was not done for him. Great prostration and cough supervened, and his sputa became streaked with blood. I therefore requested my then colleague, Dr. Wiltshire, to examine his lungs. He did so, and pronounced them free from any cause contra-indicating an operation. Having, as far as possible, ascertained that the disease was confined to the hip-joint and pelvis, I examined the inside of the latter with a probe passed through the opening in the groin, and directing it downwards and outwards discovered that the acetabulum was perforated. Under these circumstances I concluded that the pelvic abscess and the boy's condition generally were due to hip-joint disease, and that by removing the head of the femur and the floor of the acetabulum I might not only get rid of the diseased bone, but also, by affording a free and depending opening for the discharge of the matter, the abscess within the pelvis might be approximated to the condition of an ordinary abscess, and the patient by these means he afforded a chance of recovery. Having stated my views to my colleagues, Messrs. Canton, Hird, and Barwell, and they having acquiesced therein, on December 6, 1856, the patient being under the influence of chloroform, I performed the operation, making a crucial incision extending three inches in all directions over the great trochanter of the femur. The flaps having been reflected, a circular incision was carried round the head of the bone, which remained in its cavity, cutting through the glutei, the muscles inserted into the digital fossa, the pectineus, etc. Upon examination by the finger the neck of the femur was found to be so much involved in the disease as to necessitate its removal below the great trochanter, after which the head of the bone was removed without difficulty. When this was done the acetabulum was found to communicate by two openings at its deepest part with the abscess within the pelvis. With a metatarsal saw (blunt-pointed) I cut round the acetabulum, removing the whole of the diseased bone, and exposed the thickened pelvic fascia, leaving a large opening by which the matter from the pelvic abscess could escape. In this proceeding I used the metatarsal saw alone; I did not employ the gouge at all. The flaps were then brought together and secured by sutures, except opposite and below the opening in the acetabulum, where they were kept asunder by lint. Not a single vessel required tying. An interrupted splint was applied, as the leg could now be straightened without difficulty.

The operation was followed by almost instantaneous relief of his constitutional symptoms. His countenance very soon became cheerful and free from anxiety. His night-sweats ceased altogether two days after the operation. On the third day the wound in the groin was completely healed. The discharge from the wound made at the operation, for the first few days thin and abundant, gradually became thicker as it diminished in quantity, until at length it ceased entirely. On the fourteenth day after the operation he was able to sit up in bed with his knee straight, for the first time for nearly a year. In

three weeks he dressed himself, and sat in a chair by the fire. In five weeks he walked with a crutch and a stick. At the end of eight weeks he imprudently dispensed with both crutch and stick. Inflammation consequently set in, followed by abscess external to the pelvis. This, however, subsided, and he progressed steadily, daily gaining health and strength. At the beginning of April he walked in the park daily. In May, 1857, he went down to Ramsgate, and in the following July he returned to the Hospital with symptoms of phthisis; and he died twelve months afterwards—or nineteen months after the operation—of that disease.

On post-mortem examination, it was found that the head of the femur abutted against the sawn surface of the upper margin of the acetabulum. It was enclosed and shut into a cavity by a tough, fibrous capsule, which was deficient at the posterior part, whence pus escaped. The end of the femur was rounded off, and the extremity of the medullary tube was partially closed in by a thin plate of bone. The opening still remaining had jagged, uneven edges, and it seemed as though the osseous covering had at some former period been complete, and had subsequently yielded to the absorption produced by pressure at that part. The cavity which supplied the place of the acetabulum was roomy, and had a large perforation still patent. The upper part, against which the end of the bone had pressed, was covered by a thin but dense fibrous structure. At its back was a carious spot, about the size of a sixpence, the diseased action being quite superficial. A singular adaptation of parts, in order to compensate for the absence of the cervix femoris, was found in the bending inwards of the descending ramus of the pubes and the ascending branch of the ischium. The pelvic abscess was consolidated, and the iliac fascia was tightly stretched over the opening in the acetabulum cavity.

The post-mortem examination of a child operated upon by Mr. Holmes, who subsequently died of hepatisation of the lungs, presented somewhat similar features. All the viscera were found healthy with the exception of the hepatised lungs, which, however, contained no trace of tubercles. The new joint was buried beneath a dense fibrous cicatrix, separating it from the scar of the wound. The bones were surrounded by a complete capsule of fibrous tissue. The small trochanter was drawn up, and the truncated end of the femur pressed into the acetabulum by the tendon of the psoas muscle. The cavity of the acetabulum was much larger than usual. The end of the femur was rounded off, and coated by a substance resembling cartilage to the naked eye, but which proved to be fibroid tissue when examined under a microscope. The femur and acetabulum were firmly united together by bands of fibrous tissue.

In another case of Mr. Holmes's, the child was so worn down by emaciation that, though 6¼ years old, the body after death weighed only twenty-one pounds and three-quarters. The limb operated upon was an inch and a half shorter than the other one. The acetabulum was found absorbed in its lower part, which had been made to communicate with the great sacro-sciatic foramen, so that the pelvis was perforated by a ragged hole the size of a florin. On the inner side of the pelvis was a large collection of pus between the iliacus internus muscle and the peritoneum, communicating with the exterior through the acetabulum, and round by the anterior inferior iliac spine. Beneath the glutæus medius was a large abscess communicating with the operation-wound, and reaching back as far as the spines of the vertebræ running along the crest of the ilium. The inner aspect of the os ilii was laid bare to a considerable extent. The right and left femoral, all the iliac veins in their upper parts, and the lower vena cava were occupied here and there by thrombi, which were very granular, laminated, variously coloured—strongly resembling an agate in some places on section—and nearly filling the vessel. The clots were not adherent, and the veins and cellular tissue around looked natural.

The late Mr. Jones, of Jersey, was the first Surgeon, I believe, who ever introduced his fingers through an opening in the acetabulum of a living man into an abscess situated within his pelvis; and although, as we have seen, the operation has now been performed several times in cases where the acetabulum had previously been perforated by disease, I find that my colleague, Mr. Barwell, was the first who ever systematically removed the head of the thigh-bone for hip-joint disease combined with abscess within the pelvis, and who, finding the floor of the acetabulum entire, applied the trephine, and removed the latter, with the express object of evacuating the abscess, giving the matter a free exit, and thus of saving the patient.

The two cases to which he applied this practice are well worthy of being recorded.

J. H., aged 16, came under Mr. Barwell's care September 14, 1864, very much reduced with long-standing hip disease of left side. There was a large abscess near the great trochanter, and an opening in the outer part of the groin below Poupart's ligament, which discharged freely. An operation was proposed on October 3, but the boy refused, and it was delayed until November 26, when it was considered necessary to save his life, the symptoms being urgent, and the discharge from his groin very copious. Mr. Barwell removed the head and neck of the femur, and trephined the acetabulum. The patient rallied for some days after the operation, but the discharge became very copious. On December 3 it had a fæculent odour, and a few days after that pus was found in his fæces. This subsequently increased in quantity; diarrhœa, which merged into dysentery, set in, and he sank, and died on January 14, 1865.

The next case was more satisfactory:—

L. N., aged 7, admitted May 10, 1865. Around his right hip was a large abscess, with sundry openings of sinuses. A probe passed along these towards the hip-joint detected rough bone. A sinus at the inner side of the thigh communicated with the inside of the pelvis. The thigh much adducted; the shortening was apparently two inches. The boy suffered greatly, and his health was much injured. He was operated upon on May 20. The head and neck of the femur were reduced to a mere tubercle, which still lay in the acetabulum; the remainder of this cavity was filled by florid soft granulations and pus. On passing the finger into it, a more solid material was felt, which, on being extracted, was found to be a portion of the articular cartilage from the head of the femur, with the articular lamella attached, and still very sound, being barely affected by fibrous degeneration—showing that the disease, commencing in the head of the bone, ran on to suppuration so rapidly as to detach the articular lamella before the ulceration of the cartilage could be effected. Finding the floor of the acetabulum carious, and being also aware of suppuration inside the pelvis, the trephine was applied, and a large opening established, through which pus flowed freely. Four days after the operation the discharge from the wound had suddenly and almost entirely ceased, and a mere thin secretion replacing the healthy pus flow, the edges of the wound were separated and opened out by the finger, and a drainage-tube carried to the bottom of the wound, through which chlorated soda solution was injected twice daily. On the fifth day healthy discharge was partially, and on the sixth entirely restored. After a fortnight some pus found its way into the sheath of the rectus, and was evacuated in front of the thigh one-third down. The boy walked well, and without support, three weeks before leaving the Hospital, which he did in the first week of March, 1866.

Mr. Barwell, in sending me the above cases, lays great stress on the importance of watching for and preventing any sudden cessation of pus flow, as such an event, if it continues, is sure to be followed by osteo-myelitis, pyæmia, or both. He also draws attention to the importance of keeping the thigh much abducted. "The patient," he says, "was very quiet, and amenable to the required splint. In all cases of hip affection, adduction means apparent shortening; abduction, apparent lengthening. By this means I got the limb so placed that an additional sole three-quarters of an inch thick sufficed to fill up the inequality."

The operation has been required for necrosis following direct violence to the part. These are comparatively rare cases. Textor operated for this cause on July 31, 1834. The patient, a boy aged 7½ years, fell on his great trochanter. Within a few weeks a swelling and abscess formed, and on opening this the trochanter and part of the neck of the bone were found to be denuded. The incision already made being enlarged, a fracture through the cervix was found; and although the bones appeared to be necrosed below the lesser trochanter, the saw was applied above that process, in order to preserve the muscular attachments. Suppuration, bedsores, and gangrene ensued, and the patient died on the twenty-third day after the operation.

On May 1, 1865, I operated upon A. A., aged 6, for abscess and necrosis of the head of the thigh-bone. In February, 1863, when returning home from school, he was knocked down by a man running against him, and was trodden upon and kicked. Some few weeks passed before any particular notice was taken, when he complained of so much pain, and became so lame, that his parents took him to Guy's Hospital, where he became an in-patient, and attended off and on until February, 1865, when he was discharged as incurable.

He was brought to me, and admitted into Charing-cross Hospital on March 21. He was then suffering from symptoms

of advanced hip disease. There was an abscess near the trochanter, which had burst. He complained greatly of pain in the knee, especially when the limb was moved or shaken. His hands were employed in steadying the limb, and he was very much emaciated, and very weak and feverish. I tried what rest, constitutional treatment, and extension of the limb would effect, but he gradually became so much worse that it was evident that he would sink if not relieved. Accordingly I made an incision four inches long over the trochanter, and a second at right angles towards the nates. When I opened the capsular ligament a quantity of matter escaped, and upon examining the part I found the neck of the femur rough, and the head of the femur broken into some six wedge-like fragments resembling the quarters of an orange more than anything else, entirely denuded of cartilage, and in a state of necrosis, lying loose in the acetabulum. I removed the neck of the bone, or rather its remains, by the bone-nippers; and having extracted the fragments of the head from the acetabulum, a further examination showed that cavity to be healthy. It was therefore left intact. He did not get on so quickly as some do, but eight months after the operation he was able to walk about the ward with the assistance of a small chair, which he pushed before him, and which I infinitely prefer for young children to the use of crutches. The child has done well since then. He has recently been under my charge again for an affection of the spine, and a small ulcer in the cicatrix; but he is very active indeed. The difficulty is to keep him quiet; and he now walks and runs about with the aid of a high-heeled boot, without requiring crutch, stick, or any other artificial support.

In a case related by Mr. Holmes in the *Lancet* of 1864, a small sequestrum, about the size of half an almond, was found embedded in the lower aspect of the neck of the bone.

In another case Mr. Holmes observes—"The operation was somewhat tedious in consequence of a rather odd mistake which I fell into. There was a large carious pit in the neck of the femur, surrounded by soft tissue; and on getting my finger into this I at first took it for the edge of the acetabulum, and spent a short time in vainly endeavouring to open it."

In a third case, wherein the hip-joint disease appeared to follow immediately upon an attack of scarlet fever, the neck of the bone was found separated by ulceration from the head. This separation had taken place about half an inch above the root of the great trochanter. There was a portion of the neck lying loose in the cavity of the joint; and the epiphysis of the head was separated from the shaft at the epiphysial line, and was lying loose and necrosed in the acetabulum.

In a case related by Dr. Donald Macgregor, of Glasgow, wherein discharge had gone on for several months, accompanied by hectic fever, prostration, and great emaciation, in cutting through the femur below the great trochanter the saw passed through a large abscess in the cancellated structure of the bone. The acetabulum was healthy; and the youth, aged 17, recovered.

Mr. Bowman, also, in the case of a girl 6 years of age, found the head and neck of the femur necrosed and loose, embedded in an excavation in the inner surface of the trochanter major. The acetabulum had partially disappeared. Mr. Bowman removed the fragment, and the child got well; and I find some twenty or more additional cases recorded, in which at the time of operation the head of the femur was found spontaneously separated from the rest of the bone.

Mr. Gant, who has met with great success in the performance of this operation (having had six consecutive cases, five followed by complete recovery, and one at present doing well), relates the following very interesting cases:—

A sailor, aged 26, when on board ship four years previously, fell from the masthead, a distance of thirty feet, upon his left hip. This was followed by severe pain and swelling, which were relieved by cupping, but he was not afterwards able to walk on that limb. A year afterwards he was sent to the Dover Hospital, where he remained for nearly three years; and during his residence there a series of abscesses formed about the joint, and discharged freely, but no dead bone ever came away. On March 28, 1864, he came under Mr. Gant's care; and on May 7 following Mr. Gant excised the head, neck, great trochanter, and one inch of the shaft—altogether four inches. On July 27 the wound was nearly healed. The patient was able to get about on crutches, and had become fat and cheerful.

In another case, that of a dairyman, aged 16, Mr. Gant removed five inches and a half of the femur, including the head, neck, and great trochanter. The patient recovered completely, becoming from a living skeleton a fat and healthy individual.

This, I believe, is the largest quantity of the femur which has ever been removed for disease of the hip-joint, the next in extent being the first by Sir Wm. Fergusson, in which he removed the head, neck, great trochanter, etc.—in all about four inches and a half.

(To be continued.)

ON THE

VARIETIES OF FEVER WHICH FOLLOW SURGICAL OPERATIONS.(a)

By T. SPENCER WELLS, F.R.C.S.,
Surgeon to the Queen's Household and to the Samaritan Hospital.

Lecture II.

Gentlemen,—In the last lecture (see *Medical Times and Gazette*, January 27) I related three remarkable cases where high temperature and other signs of fever were clearly due to inflammation and suppuration of ovarian cysts, or to decomposition of the fluid contents of these cysts, where the fever subsided almost immediately after the removal of the cysts, and the patients completely recovered. In all those cases the fever was of the type now commonly termed *pyæmic*. Lately we have had a typical example of what may be termed *uræmic* fever. The case was a very interesting one. A girl in her 16th year was sent to me by Dr. Wardell, of Tunbridge Wells, on account of an abdominal tumour. She was a fat, florid girl, and apparently in robust health; but her abdomen began to enlarge when she was about 12 years old, and went on increasing, not attracting any particular notice till May or June, 1871, when she was seized with some pain on the right side. This lasted only a few hours, and was followed by swelling, also on the right side, which disappeared after some days' rest, the general enlargement remaining. Dr. Wardell first wrote to me about her in October, 1871. A month later he wrote that the tumour was enlarging, and she was admitted here early in December. On December 15 the girth at the umbilical level was 35 inches, distance from sternum to pubes 15 inches, and from one ilium to the other, across the front of the abdomen, 15½ inches. Fluctuation was distinct all over the lower part of the abdomen, and the movement of a cyst was distinctly visible between the umbilicus and sternum—rising and sinking with the respiratory movements—the upper border of the cyst being about half-way between the sternum and the umbilicus. On both sides of the abdomen the sound was dull on percussion; so it was from below the pubes to within two inches of the umbilicus. From thence to the upper border of the cyst in the centre it was resonant or tympanitic, and on pressure with the fingers the peculiar gurgling and contraction of intestine could be felt. It was quite clear, therefore, that we had intestine adhering in front to the upper part of the cyst. Both loins and flanks were clear on percussion, the right more distinctly so than the left. The uterus was normal in size and situation. On the right side of the vagina a soft fluctuating tumour (the lower part of the cyst) could be felt just above the brim of the pelvis. The catamenia appeared when she was 14, and continued regular for four months, then ceased for four months, and since then have been regular, but rather excessive, lasting a week. There was some irritability of bladder. Very unfortunately, owing to a mistake, the urin was not examined.

The girl was kept in Hospital, and on January 23, 1872, the girth had increased to thirty-seven inches, and each of the other measurements showed an increase of about an inch. The presence of intestine in front of the cyst led to the suspicion of hydronephrosis; but the resonance of both loins, and the fact that the cyst could be felt by the vagina on the right side, almost negatived this suspicion, and it appeared more probable that we had to deal with a multilocular ovarian cyst, to which intestine adhered in front. I made an exploratory incision on January 24, and at once came upon the cæcum, its appendix, and the ascending colon, which had been pushed upwards and across the median line by the cyst, which was behind it. I saw at once I had to deal with a hydronephrosis; so, pushing aside the intestine, I tapped the cyst. Twelve pints of fluid escaped through the canula, and I then found that the uterus and both ovaries were healthy. A small cyst in each broad ligament I felt, but did not disturb. When the cyst was empty I fixed the opening in its

(a) Delivered on Wednesday, March 6, 1872.

wall to the abdominal wall by a harelip-pin, and then closed the wound by sutures.

The fluid removed from the cyst was clear, light yellow in colour, with a faint urinous odour, acid reaction, and specific gravity of 1006. On standing, a few flocculent clouds formed, and some red blood-corpuscles were deposited. On careful chemical examination, urea, urates, and chlorides were found in about the normal proportions of healthy urine. There were traces of uric acid. A very small amount of albumen and phosphates were detected, but no traces of sugar. On microscopic examination of the deposit, large numbers of red blood-corpuscles were seen, a few pus cells, some squamous epithelial cells, and granular cells, but neither tube-casts nor crystals.

Now comes the interesting part of the case in relation to fever. At two o'clock, half an hour before the operation, the temperature was about a degree *below* the normal standard—97·4°. A good deal of pain followed the operation, and thirty-five minims of laudanum were given (twenty by rectum and fifteen by mouth), and a quarter of a grain of morphia was injected under the skin. In three hours the temperature had risen to 100·2° and the pulse to 104; in three hours more to 101·8° and the pulse to 140. After three hours more the thermometer marked 102·4°—a rise of 5° in ten hours, after simply opening the abdomen and emptying a cyst. I have removed many large ovarian tumours, after separating adhesions, tying bleeding vessels, cutting away omentum, securing the pedicle, and freely sponging the peritoneal cavity, without anything like such a rapid elevation of the temperature of the body.

Early on the morning after operation I found that the girl had passed a very restless night, but that she had slept at times, and only ten minims more laudanum had been given. The temperature at 3 a.m. was 101·8°, at 7 a.m. 100·6°, and at 9.30 99·8°; the pulse being 116. The urine was pale and scanty, and examining it for the first time I found it loaded with albumen. She seemed better till the afternoon; then there was more pain, and fifteen drops of laudanum were given, the last opiate which was required. At 2 p.m the temperature was 100·8°, at six it had risen to 102·6°, and at ten it was still 102·6°; the pulse 136. She was lethargic unless roused, and fluid was evidently again distending the cyst; so I removed the silk which closed the opening in the abdominal wall around the pin which kept the opening in the cyst from sinking inwards, and inserted a glass tube. Three pints of urinous fluid at once escaped, resembling that removed at the operation. At midnight the temperature was 102·2°.

At four in the morning of the second day the temperature was 103°. At nine it was 104·2°, and the pulse was 140. There was a very free discharge through the glass tube—between two and three pints in twelve hours—and there was much less albumen in the urine. At 12 and at 4 p.m. the temperature was 104°, pulse 160. At six she was comatose and very restless; urine very scanty and albuminous; temperature 103·6°, pulse 128. Then I bled her from the arm to nine ounces, and sent the blood to Dr. Richardson. He told me afterwards that the specific gravity of the serum was normal, the clot and corpuscles also normal, that there was no excess of fibrine—in fact, nothing to distinguish it from perfectly healthy blood. At seven the temperature was 103·2°, and at eight 102·6°; but at ten it reached 105·2°, and at midnight 105·4°, the pulse being fully 140. Free discharge continued through the glass tube. The head was placed on a pillow of iced water, and the body was sponged every three hours.

During the third day the state of uræmic fever and coma continued; the discharge was free, and the urine scanty and albuminous. The temperature, which had fallen in the morning to 103·6°, rose in the afternoon to 108·4°, and by ten at night to 110°. She lived through the night and up till noon of the fourth day after the operation, when she died; the temperature for several hours before death exceeding 111°. The thermometer used is only graduated up to 110°, but there is a space above fully equal to two degrees, and that was quite filled up by the mercury.

Surely this rise of temperature is quite wonderful. The girl weighed about 120 pounds, and we know pretty nearly how much water and fat that would represent. We also know how much heat is required to raise a pound of water one degree or ten degrees in temperature. Suppose this girl's body before the operation represented eighty pounds of water at 97°, and when she died the same amount at 111°—an average of about 103° or 104° having been maintained for four days—it would not be very difficult to calculate the amount of coal which would have been consumed in the production of this temperature, providing no cooling process had been going on. But here natural and artificial cooling was kept up. The slow combustion of the constituents of the body under the influence of the oxygen introduced is constantly producing heat. The quantity of heat which a full-grown man gives off in half an hour would be sufficient to raise the temperature of his body nearly three degrees of Fahrenheit. If no heat were given off, his temperature would rise continuously in each hour between five and six degrees. The maintenance of the constant normal temperature of our bodies at between 98° and 99° depends upon the amount of heat produced by combustion and the amount given off by cooling processes being nearly equal. This girl's cooling processes were going on, and they were assisted by the application of ice to the head and sponging the body with cold water. The loss of heat must have been very great, and yet the temperature of the body kept rising. The production of heat must therefore have greatly exceeded the normal production. The tissues of the body must have been oxygenated or burnt up at an extraordinary rate, even supposing the cooling processes—the secretion of sweat, evaporation from the skin, secretion of urine, lung ventilation, bronchial elimination, etc.—were not as effective as usual.

Two very puzzling questions follow:—First, how did the operation check the elimination of urea in this girl, and lead to its presence in excess in her blood, or to the ammonia resulting from the decomposition of urea? and secondly, how does uræmia lead to fever heat or hyperpyrexia?

The first question is a difficult one. The post-mortem examination showed that the left kidney was almost useless—it was so small and so changed that it could scarcely have acted at all; and the right kidney was in great part converted into a cyst which held twelve pints of fluid. Why no symptoms of uræmia showed themselves before this cyst was emptied, why they came on almost immediately afterwards, and why they continued (although a free drainage of urinous fluid was kept up from the cyst) I cannot explain. It would be easily understood if the operation had led to any check in this secretion from the right kidney—the left kidney being useless—but there was no such check; and we are led to the suspicion that the opium which was given to relieve the pain, or possibly the chloro-methyl by which the anæsthesia was kept up, may have been the cause of the first stoppage in the elimination of urea, or else that some injury to the nerves of the kidney may have been the first step in the fever process.

Then, we ask, Why or how does the accumulation of urea or of ammonia in the blood lead to a rise in the temperature of the body?—and to explain this we are driven to the consideration of the influence of the nervous system upon the production and regulation of heat. Experimental researches upon the effects of removal of the brain or of the spinal cord, or of portions of one or both, show that the oxidation of the tissues and the evolution of carbonic acid—the regulation of the production of heat—are under the control of the nervous system. The arrangements for the regulation of the cooling processes depend more upon simple physical relations. In cold air or cold water more heat is given off, but as soon as the surface of the skin is cooled, evaporation is checked, the flow of blood to the skin is checked, and so is the secretion of sweat. In hot air the skin is moist, and evaporation rapid; thus high atmospheric temperatures become tolerable through free secretion from the sweat-glands and active evaporation.

A patient whose brain and spinal cord are supplied with blood charged either with urea, or with ammonia the product of the decomposition of urea, may be more or less in the condition of an animal whose brain has been removed. The regulation of the production of heat is lost; combustion goes on unchecked, and we may expect fever heat if the cooling processes do not keep pace with the excessive oxidation. If these cooling processes are also checked, of course the elevation of temperature will be more rapid and excessive.

APHASIA.—One man suddenly lost his voice three months previously, which he ascribed to a fit of anger and some unpleasant family matters. He recovered. Another appeared with slight paralysis of the right side, a third slightly affected on both sides, and a fourth with no paralysis. After recovering from typhus fever three years ago, and while engaged in settling up some accounts, into which an error had crept, the writer suddenly lost his power of uttering Chinese. His English was not affected. After perfect reposo for two hours, the power of articulating Chinese returned.—*Report of the Peking Hospital, by Dr. John Dudgeon.*

ORIGINAL COMMUNICATIONS.

ON THE

AFFINITIES AND EVOLUTIONS

(CONVERGENT AND DIVERGENT)

OF THE

SUBCLAVIUS AND OMO-HYOID MUSCLES.

By J. BESWICK-PERRIN,

Demonstrator of Anatomy at King's College, London.

THE simple and average arrangement of the subclavius and omo-hyoid muscles would scarcely lead anyone to infer that there was a close affinity between them. It is from those eccentric and restless manifestations, not unfrequently met with in the human subject, which exhibit progressive grades from the simple condition described as average to that of a dual status of both muscles, that the kinship is evident.

The average subclavius is an unpretending muscle, simply stretching between the first rib and the collar-bone, partly filling up the subclavicular space. It plays its part in the economy of the body as an accessory depressor of the point of the shoulder. Many instances have been recorded by anatomists in which this muscle made a step beyond its usual clavicular limit on to the neighbouring pinnacle of bone—the coracoid process of the scapula. The stride is a simple one—important morphologically, useless functionally. This scapular attachment is the minor grade of parallel fission, which attains its ultimatum in the dual muscle, or so-called double subclavius. Intermediate between these *plus* and *minus* grades there are many stages met with. In the simple coracoid attachment there is rarely any connexion with the omo-hyoid muscle. But in all the specimens of double subclavius which I have met with, the additional muscle has been closely associated by its outer extremity with the scapular attachment of the omo-hyoid.

Specimen 1.—The subclavius apparently presented its normal arrangement. On sectioning and removing the middle third of the clavicle, I noticed a second muscle lying parallel to it. It was attached proximally by a long slender tendon to the cartilage of the first rib, closely associated with the tendon of origin of the average subclavius. As the tendon passed outwards, a distinct and increasing muscular belly was developed upon it, which terminated at the upper border of the scapula, where it joined with the posterior factor of the omo-hyoid, occupying an internal position to it. It attained to a corresponding width to the latter muscle.

The omo-hyoid presented its usual arrangement with the above exception, and an incomplete or transitional central tendon. Relatively this leads us but a short way towards a conception of the true signification of this additional subclavius; but in the same subject, and on the same side, there was an accessionary muscle, a quarter of an inch wide, which afforded the requisite information. It arose fleshy from the inner border of the first rib, close to its cartilage, being associated with the fibres of the additional subclavius. From this origin the muscle passed almost vertically upwards, approximating in its course to the thyro-hyoid, running parallel with the outer border of the latter muscle. It finally terminated in the upper and outer angle of the left ala of the thyroid cartilage, having the thyro-hyoid internal to it, and the anterior belly of the omo-hyoid in front of it. It was fleshy, and maintained an equal breadth throughout its whole extent.

The sterno-thyroid was average. At first sight this appears to be an additional sterno-thyroid; but it is not. I think the explanation of this is easy enough. The additional subclavius is the posterior belly, and this costo-thyroid muscle is the anterior belly, the two constituting an additional omo-hyoid muscle, whose central tendon is absorbed by an abutment on to the first rib. In confirmation of this view I met with, in another muscular male subject, on the right side only, a peculiar additional omo-hyoid. The average muscle presented its usual arrangement, except that it had the transitional central tendon. The second one arose by a narrow but distinct tendon from the upper border of the scapula, close to the supra-scapular notch, and slightly from its ligament, immediately adjacent to the average muscular scapular belly. The tendon crossed in front of the latter, and at an inch distance from its origin terminated in a muscle which ran internal and parallel with the average omo-hyoid. Beneath the sterno-cleido-mastoid it spread out into a broad muscular sheet of fibres, in front of the common carotid artery and internal jugular vein, and was finally inserted into the middle third of the outer border of the sterno-thyroid. (a)

This is a very instructive specimen, and, *plus* a rib attachment, would simulate the first described specimen.

The third specimen occurred in a moderately muscular female, on the left side only. The omo-hyoid was single and average. The additional subclavius was present as above described, joining fleshy the posterior belly of the omo-hyoid about an inch from its scapular attachment.

The fourth specimen had a similar arrangement, and was found on the left side only in a male subject.

The fifth specimen is perhaps more interesting from a metamorphosic point of view. It arose from the upper border of the clavicle, immediately internal to the anterior border of the trapezium, as a narrow fleshy band. This arched over the rest of the posterior triangular space, behind the platysma, over the clavicular and sternal factors of the sterno-cleido-mastoid, and, making a sudden bend downwards, terminated in a subfascial musculo-tendinous band of fibres in front of the manubrium sterni. This is merely a further aborted degradation of the anterior belly of the more complete muscle described.

The sixth specimen occurred in a muscular male on the right side only. It is the most peculiar muscle in the series. It arose from the upper border of the clavicle, external to the clavicular factor of the sterno-cleido-mastoid, as a small muscular belly, three-quarters of an inch long and two lines in width. A second belly arose, also from the upper surface of the clavicle, a little longer than the preceding, and situated between the clavicular attachments of the deltoid and trapezius. Between the two bellies was a short (half an inch) and free tendon. I found this muscle some time ago, but I had no idea of its relative value. I simply looked upon it as a curious specimen of a vagrant and rare specimen of a supra-clavicular muscle. But the omo-hyoid arose entirely from the clavicle, directly opposite the median tendon of this muscle, and this led me to observe more closely the attitude of the omo-hyoid in all the subjects which afterwards came under my notice. I have found many specimens of a dual distal attachment of the omo-hyoid—namely, to the clavicle as well as to the scapula. Some of these specimens have been noticed by Professors Turner, Wood, Macalister, and others. All these specimens indicate transitional stages of one, of two, omo-hyoid muscles. These seem to be undoubtedly abortive. Even the single average muscle evinces unmistakable signs of desertion from the scapula to the clavicle as a proximal nidus, and further of culminating into a more useful monogastric muscle, rather than an incomprehensible digastric one. (b)

ON LEPROSY.

By GEORGE GASKOIN, M.R.C.S.

As a London Practitioner moderately versed in dermatology I must confess at present no further acquaintance with the scheme drawn up for the Indian Government by Drs. Tilbury Fox and Farquair beyond what I find in your leader of February 10. I beg leave to contribute these few remarks to those set forth in that paper. Bateman has stated that leprosy (that is, elephantiasis Græcorum) was extensively prevalent in Europe during the middle ages, and especially subsequent to the Crusades. As far as my reading goes this seems exactly correct, though there may be some hesitation as to the latter point. Strong proof, I think, may be shown that leprosy was abundant before the date of the Crusades, and especially in the South of France. I think I remember there is even some small mention of it in the pages of Miss Strickland. When conversing on this subject with a contemporary *littérateur* who is supposed to have extensive or special knowledge on such subjects—M. Francisque Michel—this gentleman remarked to me that "so far from leprosy coming from the East, he could show proof that it was towards the East that patients in time past were directed for their cure." The syllogism is imperfect. For my own part I can believe there was a recrudescence following on these wars in Egypt and Syria with the Saracens.

(a) On the same side of the body the subclavian artery gave off the posterior scapular from its third part, and the supra-scapular arose from the first part of the axillary.

(b) I have not attempted to quote from work done by others in this direction. This is merely a preliminary paper. In a future one probably I may embody some extensive, but at the present time incomplete, comparative researches on this subject, as well as the observations of modern observers.

What is certain is that the intimacy and connexion between the races was sufficiently close, and the sojourn in these countries was long enough, for the diatheeis to be acquired. The first Crusade waa preached at Clerment, in Auvergne, and it is a matter of history that a large portion of the inhabitants, both peasantry and gentry, embarked in this wild and foolish expedition. A complete hiatory of these people has fortunately survived in the interest which attaches to the Montgolfier family as paper-makers, aëronants, and Protestants well knewn to fame. A large mass or group of these Auvergnats were swept into captivity and planted as a colony at Damascus, where they were taught or acquired some of the industries of the East. After a time, released from captivity, they returned to their province in France, and fixed at Clermont the art of paper manufacture, where it long remained—until the expulsion, in fact, of the Montgolfiers on account of religious opinion. By them it was carried into Holland. It is sufficient to have opened up this line of inquiry, without pursuing it further. The Auvergnats are of the lowest type of Frenchmen; but aa to the amount of leprosy among them, and the share this disease may have had in their degradation, further details are desirable.

The observations of Dr. Farquair on the faulty character of rice and cereals in India appear to me of the highest possible amount of interest. I believe I am fairly interpreting the Medical mind of Italy when I say that, after long conjecture and debate, pellagra, an allied disease, is commonly referred, and by an assent almost universal, to the innutritious character of the maize-corn, a principal article of food among the Italian peasantry. To the physiologist some nice points remain; but, as far as the legislator is concerned, the consideration of leprosy would seem to merge into a larger question—that of food-supply and the physical well-being of the people. With fish it will be the same as with grain—it varies much in nutritious quality. Fevers in our fishing villages we knew to be severe. But some kinds of fish may fairly rank with meat in respect to nutritive power. It is reckoned so abroad when used in the diet of soldiers. I cannot here refrain from quoting a living Portuguese Physician who has had remarkable experience in leprosy. Dr. Silva Beirão, in confuting the idea of fish producing the disease, instances certain monastic orders in Portugal who abstain from flesh religiously and altogether, but use fish as a principal article of food, "and yet," he says, "they do not suffer from leprosy as those of the lower classes." The reason of this is plain. The fish they eat is Newfoundland cod for the most part—a great mainstay of existence in Portugal, not less nutritious than meat. The disease of leprosy in some shape or form is so universal among underfed races that one may be excused from regarding it as the effect of so general a cause as innutrition. Its hereditary character, rather than the dread of contagion, seems to have led to the separation of the affected; and if attention were drawn to a higher scale of dietary in our colonies abroad, as has been the case in our madhouses at home, the result might prove advantageous as regards its prevention and cure.

7, Westbourne-park.

SCROTAL ELEPHANTIASIS.

By J. FAYRER, M.D., C.S.I.,
Hon. Physician to the Queen.

Aulad A., a Mohammedan, said to be 41, but seemingly very much older, a resident of Moorshedabad, was admitted into the Medical College Hospital on October 2, 1871, with a scrotal tumour of great size.

He was a small man: height, 5 feet 1 inch; girth of chest, 32 inches; body moderately well-nourished, but his appearance was suggestive of fatty degeneration and of advanced age; his hair and beard were perfectly white; he had lost all his teeth; and his face, body, and limbs were covered with large patches of leucoderma. The tumour of the scrotum was similarly affected. His heart-sounds were normal, but rather feeble; his pulse steady, but wanting in force; his weight, 15 st. 8 lbs., or 218 lbs. He says the tumour commenced about twelve years ago with hydrocele, and that he has been subject to frequent recurrences of elephantoid fever, during each of which the tumour increased in size and became painful; but it is only during the last two years that it has attained its present great dimensions. Its measurements were as follows:—Round the neck, 17 inches; horizontal circumference, 51 inches; vertical circumference, from a line drawn round the neck of tumour behind to a corresponding point in front, 61 inches; distance of meatus urinarius from symphisis pubis, 16 inches. When standing the tumour reached within two inches and a half from the ground. The legs were widely separated by the growth, which protruded backwards between them to a great extent. His general health was, on the whole, fair, his spirits good, and his anxiety to have the encumbrance removed great. He was most urgent in his solicitations for relief, and expressed his willingness to undergo the operation at whatever risk.

In order to improve his health and prepare him by good food and tonics, the operation was deferred until November 20. Early on that morning the tumour was suspended by pulleys, and ice applied, with the view of emptying it of blood as much as possible. At 9 a.m. the operation was performed in the usual way. The penis was exposed by laying open the sinus at the bottom of which it lay. A few sweeps of the knife, during which the hæmorrhage from large venous sinuses was excessive, sufficed to release it. The testes were then exposed by long and deep incisions. The left testicle was surrounded by an enormous hydrocele, the right by a comparatively small one. They were exposed and disengaged from the surrounding mass without loss of time and with little difficulty, but the hæmorrhage was severe. A few bold strokes with a large scalpel completed the removal, and the mass fell heavily on the floor. During the operation it had been raised or depressed, as circumstances required, by the pulleys and a canvas sling on which it rested. The vessels, which were very large and numerous, were then tied.

He became very low on the table, but rallied under the influence of stimulants, sinapisms, warmth, and the magnetic current, and was removed to the ward. He remained low; the pulse at times rising and then falling again. Reaction never perfectly set in, and he died at about 11 p.m.—fourteen hours after the operation. The operation was certainly a very formidable one, and in effecting it I received most able assistance from my colleague, Professor Cutcliffe.

There waa no hæmorrhage after the operation, but the shock to the nervous system was more than he could bear. He was most carefully tended, stimulants were given, and warmth applied, but to little purpose. His bowels acted freely during the day. He took nourishment, but remained in a state of only semi-consciousness, opening his eyes when spoken to, but not speaking. His pulse gradually failed, and death occurred as I have before stated.

His weight after the operation was 108 lbs., that before it 218 lbs., so that 110 lbs. was the actual weight removed. The solid fibrous mass, after all fluid had drained away, was over 28 lbs. in weight. The weight removed was two pounds more than that which remained. Larger tumours have been removed with success, but I do not know that more than half of a man's weight has ever before been removed by a Surgical operation. I believe that, had his general condition been more vigorous, he would have done well.

The post-mortem examination was made at 9 a.m. of November 22. The body waa that of a small, slightly made old man; the hair perfectly blanched; the teeth all gone. The body, head, face, limbs, and the tumour itself were mottled with patches of leucoderma. He was moderately well nourished and tending to obesity. The chest and abdomen were laid open. The lungs were healthy, but slightly emphysematous and hypostatically congested; the pericardium contained a quantity of serum. The heart was small, had some fat deposited externally, and was friable, being easily torn; it looked fatty; there were small fibrinous coagula in both ventricles. The liver, spleen, and kidneys were smaller than natural, and seemed to be fatty. The muscles generally looked feeble, pale, and flabby. There was a considerable layer of subcutaneous fat; the tissues generally seemed to be in a state of adipose degeneration. The arteries were healthy; the aorta was remarkably good. About the wound there was nothing peculiar. The testes were apparently healthy, though small; the cords were elongated and hypertrophied, with much gelatinous matter in their substance. The remains of the left tunica vaginalis were much thickened; it had contained an enormous amount of fluid. The right tunica vaginalis was also somewhat thickened, and had contained a certain amount of fluid. The mouths of many large vessels were apparent on the wounded surface. Dr. T. R. Lewis, Staff Assistant-Surgeon H.M.S., who was present at the operation, has most kindly made a microscopical examination of the organs as well as of the tumour. I append his report as follows:—

"Liver: The hepatic cells were no longer recognisable as

such. Their usual granular appearance had entirely disappeared, minute molecules of fat alone being seen. It was with difficulty that a tolerably normal cell could be picked out. Kidney: The cortical portion extremely fatty, and the lining epithelium of the tubules had degenerated into what appeared to be mere globular accumulations of oil molecules. Heart: The fibres had undergone extensive fatty degeneration; in fully one-half of the fibrillæ the transverse striæ had disappeared, or become so granular as scarcely to be visible. Muscle: The fragment forwarded (of the pectoralis major) appears to be healthy. Vessels: So far as I have hitherto been able judge, the two samples present a normal appearance; but as yet they are scarcely sufficiently cleared up by the glycerine to be able to pronounce more definitely. Should subsequent observation show that they are diseased, I will let you know."

Minute Structure of the Scrotal Tumour.

(Drawn by Dr. T. R. Lewis, H.M.S.)

Fig. 1.

Fig. 1.—Microscopic appearance presented by a fragment after prolonged immersion in glycerine, showing areolar tissue (chiefly) in an hypertrophied condition. Magnified 300 times.

Fig. 2.

Fig. 2.—Appearance of another fragment stained in a solution of aniline and glycerine, dilute acetic acid being subsequently added. In the midst of the fibrous tissue the more or less transversely cut fibres of non-striated muscle are seen. Magnified 500 times.

The operation was performed in the presence of Dr. J. Campbell Brown, C.B., Inspector-General; Professors Chevers, Chuckabutty, and Cutcliffe; Drs. Lewis and Dobson, of H.M.'s British Medical Service; and others.

Calcutta.

The engineer of the Lambeth Waterworks states that the Lambeth Company is carrying out works for forming a new intake from the Thames above Hampton, by which the water from the river Mole, objectionable during floods, will in future be avoided. It is expected that the works will be completed and opened in September next.

REPORTS OF HOSPITAL PRACTICE

IN

MEDICINE AND SURGERY.

BIRMINGHAM GENERAL HOSPITAL.

CASE OF RHEUMATIC PERICARDITIS AND PLEURITIS; A CASE OF DOUBLE PLEURISY: EACH WITH VERY SLIGHT RHEUMATIC DEVELOPMENT—MENTAL DERANGEMENT IN CHOREA.

(Under the care of Dr. RUSSELL.)

The following two cases form a supplement to six cases I published in this journal (1870, vol. iv., p. 644) in illustration of the varying relation which subsists in different cases of acute rheumatism between the pyrexia, the inflammation of the joints, and the visceral inflammations which constitute a less constant factor in the disease. A similar case appeared from the pen of Mr. Gray, of Oxford, at page 40 of the next volume.

The cases need no comment. The combination of pericarditis with pleurisy in the first case indicates with much probability that the visceral inflammation had its origin in blood disease, even were there not other evidence to the same effect. The pleurisy in the second case being double, bears testimony of the like character. The first case, however, has a separate interest in relation to the development of chorea which it records, and particularly to the severe mental disorder which twice occurred. I would draw attention, likewise, to the light thrown upon the rheumatic element in my patient's family, and upon the presence of cardiac disease in her own person long after she had passed from under my notice on the occasion of her first attack. During that attack all information in this direction was of a negative kind. The bearing of this observation upon the presence of a cardiac bruit in cases of chorea and upon possible inheritance of rheumatic proclivities, will be at once obvious.

Case 1.—C. H. was first admitted on September 28, 1868. She was then 12 years old, and was suffering from a mild attack of bilateral chorea of three weeks' duration. The outbreak of chorea was preceded by headache, and was accompanied by painful swelling of the feet, attributed to a wetting. She was discharged cured in five weeks. It was affirmed that rheumatism was entirely absent from the family history; she herself had never had rheumatism other than the slight development just described. A slight prolongation of the first cardiac sound, which it was impossible to localise, was heard repeatedly, but entirely disappeared before her discharge; and six weeks afterwards the sounds of her heart were pure, and she was stout and fresh-coloured. Eighteen months subsequently (May, 1870) she returned, with renewal of the chorea of a month's duration. She looked delicate and pale, but the sounds of her heart were pure. Again she had a threatening eighteen months after, in last December. Nutrition had continued to decline; she had become very anæmic, and had not menstruated for four months. On this occasion I found a loud diastolic aortic bruit, with some effusion of fluid in the right pleural cavity. Shortly before this time her brother had been admitted into the Hospital, with symptoms of cardiac disease and a mitral bruit. The threatened chorea did not then take place, but two months afterwards her mother came to me to complain of her daughter's mental state. I then learned that nine months ago she had run away to London without money, to see the Queen married, as she said; she came back without a ticket, and was brought home by the railway officials. She continued strange for three months, going out in her night-clothes, putting on her father's dress, and getting the family into trouble by her tricks. She subsequently improved, but three weeks since she again disappeared for two days and nights, and was found in the privy of her own house, footsore and covered with mud, but unable to give an account of herself. She affirmed that she was to be married, and that the wedding-ring had been purchased. She came into the Hospital soon after (on March 13), with decided choreic development, which in three days assumed great violence, but with few traces of her mental disorder. Under the influence of chloral, continued every six and then every four hours, the movement yielded, and after the 20th rapidly subsided. On admission she had slight rheumatic inflammation in the knees, which speedily subsided. There was some fluid in the left pleura, and a slight pericardial rub. By the third day after

admission the pleuritic effusion had rapidly increased, and fluid was poured into the pericardium, reaching by the following day as high as the second rib, and crossing the sternum; the pleuritic effusion also filled the greater part of the left chest. From this date, however, recovery was rapidly effected, clearness being re-established over the pericardium and over the chest, except at the base, in two days. The improvement coincided with diminution in the severity of the chorea. The temperature in the axilla never rose above 101·6°, and only attained that elevation three times, on each occasion falling in the night to the normal line again to rise. The severity of the choreic symptoms prevented any special treatment for the visceral disease, excepting the administration of iodide of iron, with small doses of iodide of potassium. Fortunately the patient continued to take food freely throughout.

Case 2.—H. A., aged 15, had suffered from two attacks of acute rheumatism. He was admitted on March 20 with slight rheumatic inflammation in the right knee and elbow, and a threatening in the other joints. The joint affection speedily subsided, the muscles of the back, however, remaining stiff for a day or two. He was not brought under my notice until the 23rd, when I found effusion in each pleura to the middle of the dorsal region; the heart sounds were pure; the joint affection had receded. Removal of the fluid was effected as speedily as in the last case, for on the 25th the base only retained any degree of dulness. Thenceforward recovery was satisfactory. The temperature on admission was 102°; it retained this elevation for the next three evenings, falling in the morning to 100° to 99°, and at last to 98°; it then remained within normal range.

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Medical Times and Gazette.

SATURDAY, APRIL 27, 1872.

DWELLINGS FOR THE WORKING CLASSES.

When Lord Derby opened the new Hospital at Bootle a short time ago, he made of the occasion an opportunity for insisting on the necessity of educating the poor to appreciate and accept sanitary measures, pointing out that, without such education, sanitary legislation must be of little or no effect, for people cannot be made cleanly, or temperate, or moral, or lovers of pure air by law. We need not say that we fully agree with his lordship in taking the term "education" in its broadest, fullest sense, and not as meaning merely instruction: we have frequently tried to enforce the same views in our own pages. And we would once more insist that the first and most paramount means of this desired education is a due provision of decent healthy dwellings. Of course we are not believers in the planting-out-in-the-clear theory, or in the wildly impracticable idea of making every man or every head of a family the owner of a cottage and a bit of land. Our demands, and those of sanitarians in general, are much more humble and much more practicable. We are content to ask that it shall be possible for the poor to obtain in cities and towns rooms in which human beings can live in decency and cleanliness if they wish it, and not be forced, even when earning fair wages, to herd together in dens in which a country squire would utterly refuse to kennel his dogs. The frightful overcrowding in our cities and towns, and even our villages, is one of the most crying evils of the day, and one fraught with the most disastrous results to the physical, moral, and intellectual health of the population. It would be the merest waste of time to place proofs of this before our readers. Every Medical Practitioner knows it but too well; our sanitary reports teem with proofs of it; our pages constantly contain illustrations of it. Only the other day we reported Professor Stokes's discourse on State Medicine, in which he speaks of the overcrowding and uncleanliness of the poor in towns, "where poverty, neglect, and overcrowding so often make them foci of endemical disease," and of the deplorable social and physical condition of the poor in the country towns and villages. A short time ago, also, we quoted Professor Leone Levi's assertion that "the increase of drunkenness in Manchester during the last ten years was mainly due to overcrowding, that city being the most densely populated of the large towns"; and we believe that we may take it as universally admitted by all who have any real knowledge of the subject, that one of the chief causes of the vice of drunkenness, and all forms of brutality and vice, is the wretched state of the lower classes with regard to their dwellings. And this terrible source of evil, this overcrowding, is, alas! to be found everywhere—not only in the thickly populated parts, and overgrown and age-incrusted cities of the Old World, but from the New World also; and even from the young towns of our young colonies come the same cry, the same complaints of overcrowding, filth, vice, and disease. We cannot just now lay our hand on the sanitary reports from Melbourne to quote proofs of the existence of the evil there, but we may show how rampant it is in America. The valuable and admirably got-up reports of the Board of Health of the State and City of New York are full of it. In the "Report on Vital Statistics," which forms a part of the "Fourth Annual Report of the Metropolitan Board of Health of the State of New York," the evils caused by overcrowding are proved with a fulness and clearness that leave nothing to be desired, and are eloquently denounced; and the language of the New York reporter may be well and usefully borrowed, as depicting with equal truth the state of things here at home. Two forms of overcrowding are prevalent, the reporter observes, both of which are fatal. One pertains to the surface area, the other to the dwellings; bad as both forms are, the latter is much the more deadly of the two:—

"If the proximity of dwellings produces morbid mental and physical conditions, the proximity of families is still more demoralising and pernicious. The forced companionship of the old and young of both sexes, which may be seen in any of the more crowded tenement-houses, 'is not, nor can it come to, good.' . . . The want of accommodation for families arises from an increase of population without a corresponding increase in the number of dwelling-houses. This offers an inducement for the degradation of buildings that were intended and fitted out for a single family. Houses built for this purpose are let in floors; those intended to accommodate but one family on each floor are compelled to contain two; families who were once isolated find that they can save the rent by taking lodgers—and thus the process of agglomeration goes

on, until all the proprieties of life are violated, the pride of the family crushed, its sensibilities deadened. The people so housed huddle and herd together in a manner that may be described as far more bestial than human. . . . And this is one of the teachings of these statistics of the mortality of tenement-houses—namely, that overcrowding of the ground-space by dwellings, and overcrowding of dwellings by inhabitants, are the greatest social and sanitary evils against which the Board of Health has to make war. Other sanitary evils are limited in their operations, and affect but a few—they are local in their effects; these are general, and their effects are to be seen not only in the present, but they reach far into the future. The subject is one of vital interest, for the stability of the State, in the last analysis, depends on the purity of the home. In many of the houses whose vital statistics are the subject of this report a home is an impossibility. 'Home is the sacred refuge of our life;' but there is no such refuge in these crowded tenement-houses. The very instinct of domesticity, of privacy, of homelikeness would be crushed in anyone who would even make an effort to dwell in such untold filth and degradation. To children born and reared under such influences it is inevitable infamy. Life is too short to allow them to escape from the debauchery into which they are baptised at birth; and moral elevation, or an improved social standing, can rarely come to any family so environed and so housed. But when these dwellings are improved in their sanitary condition, the dwellers are also improved in a social aspect, and the physical view of the hygienist becomes at last the spiritual view of the philanthropist."

Take this quotation as a description of the overcrowding in our own cities, and of its disastrous and certain consequences, and who will say that the language is in any degree exaggerated, or the picture one whit overcharged? And is not the danger to the national healthy life from this condition of things greater with us than in the wider-spaced, far less fully peopled New World, and the difficulty of individual escape from its brutalising effects increased even to hopelessness? The facts of the matter are universally known and admitted; the inevitable consequences, if they are allowed to persist, are not disputed. Is anything being attempted to even lessen present evil, and to avert worse disasters in the future? Sanitary science can do, and even with its present imperfect help from the law does do, much to improve existing dwellings and lessen some of the dangers arising from them; but sanitary science cannot supply increased and ever-increasing accommodation—and this is *the* great need.

Something has been done, and more is being done, by private efforts. The Peabody Buildings, the Coutts Buildings, and the erections of "The Improved Industrial Dwellings Company" are an immense boon to those who are fortunate enough to obtain lodgings in them, and leave nothing to be desired in the way of healthy, cheerful homes. The Peabody and the Coutts Buildings must ever be looked at with all gratitude and praise as grand results of munificent and large-hearted philanthropy; but the work of Sir Sidney Waterlow and Mr. Allen, by means of the Improved Industrial Dwellings Company, must excite, we think, still greater interest and admiration as having proved that excellent homes, replete with all the improved sanitary arrangements, can be provided for the working classes at a profit. The Company has never paid less than 5 per cent. on its invested capital, and its dwellings are in constant demand. But, admirable as are these efforts to meet the dire want of which we are treating, they are utterly insufficient; they do little more, though this is a great deal, than show what can be and ought to be done. The want and its attendant evils are of gigantic, of imperial proportions, and demand the action of the Legislature What has Parliament done in the matter? We were going to say it has done nothing; but that would be sadly untrue. It has done nothing to prevent or to remedy overcrowding, but it has done very much to cause and to intensify it. Parliament has not been slow to grant powers for the making of metropolitan improvements, by which thousands of the homes of the working classes have been swept away; but whenever it has been asked to require that at least some new dwellings shall be erected in place of those ruthlessly destroyed, the narrow, poor knowledge and the unwisdom of the mere political economist have been used to denounce and reject the appeal; and consequently nearly every "metropolitan improvement" has increased the overcrowding, wretchedness, and disease in the dwellings of the poor. But we are delighted to see that a public body has at last determined on making an effort to prevent the poorer part of the population of the metropolis from being improved away. The Metropolitan Board of Works has, by a very large majority, resolved to introduce into the Improvement Bill of the Board now before Parliament a clause empowering the sale or letting of certain sites along the line of alterations, on the condition that industrial dwellings shall be built on them. It is stated that the works of the Board will turn 1457 persons out of their homes, and that the sites selected to be set aside for industrial dwellings will accommodate 3452 persons. We regard this as by far the greatest improvement ever attempted by the Board, and earnestly trust they may carry their clause through Parliament. There has never been the least difficulty in getting tenants, and good tenants, for well-constructed and healthy dwellings; but it has been most difficult to get dwellings for the tenants, while there are large cleared spaces in the City and at the East-end, on which healthy homes might be built, which would be occupied almost as rapidly as they could be opened. We fear that the huge evil of overcrowding and the dire want of healthy homes for the poor will never be fully met and grappled with till we have a Government of great statesmen instead of mere politicians, or till the subject is made a national demand or a party cry; but meanwhile the resolution of the Board of Works is a most hopeful sign, and is full of promise of some larger measure of relief than has ever yet been attempted.

THE CORONER'S COURT AND THE CAUSE OF DEATH.

Complaints are being constantly made, particularly in country districts, of imperfect and unsatisfactory inquests. It is frequently the case that the Coroner dispenses with Medical testimony, when such testimony is the only evidence on which a jury could arrive at an accurate knowledge of the cause of death and return their verdict accordingly. Competently conducted, and with a jury of ordinary intelligence, the Coroner's Court is a valuable institution; but it may be the reverse of these, and then it is likely to shield the wrong-doer and frustrate the ends of justice. Though not having reference directly to these remarks, but as an instance of how complicated and unsatisfactory an inquest may be, we may call attention to one held at Lincoln the week before last. The facts may be briefly stated. The subject of inquiry was a child 19 months of age, who, whilst on a visit to a village near Lincoln, was taken ill and vomited. This was attributed to the fact that the child had been eating plum cake and fried bacon. It came out, however, during the inquiry that a man who was employed at the house where the deceased child was taken ill had dropped from his coat pocket some white "stuff," which the man said was "mercury," and hoped the child had not touched it. This "stuff" was, no doubt, arsenic, as it will be proved in the sequel. The child was removed to its home at Lincoln, where Mr. Redman, a Surgeon, was summoned to attend it. As the parents refused to allow Mr. Redman to lance the child's gums, that gentleman declined to continue his attendance; another Medical Practitioner was sent for, but the child died before his arrival. Mr. Redman having been informed that the child might possibly have taken a poisonous quantity of mercury, ordered it to have white of egg and flour-and-water. He did not communicate his opinion of the nature of the disease to the parents. The child died in convulsions, having screamed a good deal before death. The Coroner was applied to to hold an inquest, but being informed that the Surgeon had

declined to give a certificate of death, in consequence of the parents refusing to act on his advice, he (the Coroner) declined to hold an inquiry. A certificate was afterwards brought to the Coroner, on its way to a burial club, and this document ran as follows:—"Primary cause of death was irritant poison; secondary cause, convulsions." Under these circumstances, an inquest was called, and a post-mortem examination ordered to be made. At the inquest the foregoing facts were elicited, and Dr. G. M. Lowe, who examined the body, deposed as follows:—

"The body was that of a fine healthy child, without any mark of violence on the surface, with the exception of a rosy rash on the thighs and arms. On examining the body I found the lungs were emphysematous, and the right side of the heart was engorged with black clotted blood. The œsophagus was removed and examined. The mucous membrane was found to be white, and not congested. The stomach was removed entire and preserved. The mucous membrane and the whole of the intestines were remarkably white, and free from any congestion. The mesenteric glands were greatly enlarged and matted together in a mass. The intestines were covered with a light-coloured fluid. The brain was perfectly healthy. I think, in all probability, the immediate cause of death was convulsions, on account of the state of the heart and lungs. As regards the cause of the convulsions, it may be an open question, as the child was cutting its teeth. If there had been any irritant poison taken, I should have expected to have found the stomach congested. There was no immediate evidence of poison, and there was quite sufficient in the state of the child to account for death. To the Foreman: I have not had time to analyse the contents of the stomach."

Mr. Redman fully concurred with Dr. Lowe's evidence, but would prefer having an analysis made of the contents of the stomach. The Coroner said he thought "that there was sufficient proof that the child had died from convulsions, and there was a sufficient cause for the same other than from poison"; still, if the jury wished it, he would adjourn the inquiry, in order that an analysis of the contents of the stomach might be made. The inquest was adjourned accordingly, and the contents of the stomach having been analysed, at the second meeting of the Court Dr. Lowe gave the following somewhat startling evidence:—"That arsenious acid was present in large quantities, both in the stomach and intestines." In summing up, the Coroner said the child might very possibly have died from an overloaded stomach, or from teething, or from cold from being taken out on such a day; but there was now no doubt that it died from arsenical poisoning. Verdict, "Accidental poisoning."

Now, this case is most instructive and suggestive. Had it not have been that the Burial Board insisted on a certificate being given them before the sum for which the child was assured was paid, no inquest would have been held. Having been held, and evidence given to show that the child died a natural death, the inquiry would have been abortive had not Mr. Redman requested that an analysis of the contents of the stomach should be made. But why was this analysis not made before? The summons Dr. Lowe received was no doubt an ordinary one, and directed that the "contents of the stomach should be analysed." Dr. Lowe's excuse was no answer to this requisition, and, as it was proved, his evidence was worse than useless without the analysis. The Coroner's suggestion after the poison had been detected was neither ingenious nor happy; it would have been far better had he acknowledged that the inquest had *fortunately* been complete, and the cause of death arrived at, rather than speculated upon what the child might have succumbed to.

We may gather from the facts disclosed by this inquiry how important it is that if an inquest is held it should be a searching and complete one. Cases will at once suggest themselves to the reader in which wilful poisoning, as well as accidental poisoning, may escape detection when the inquiry is incomplete. Rather let us have no inquest at all than one calculated to mislead, to shield the guilty, and be the fosterer of crime. If the Coroner's Court is to maintain a respectable position as a court of inquiry, inquests must be conducted in a very different manner to what they are in some parts of the country. Medical evidence must not be suppressed or ignored. If a more satisfactory system cannot be carried out, then it is high time the "crowner's quest" should be superseded by a more searching, more impartial, and, consequently, more satisfactory tribunal.

THE WEEK.

TOPICS OF THE DAY.

The recent proceedings at the Royal Orthopædic Hospital can hardly be allowed to pass into oblivion. The charges publicly made against a gentleman, who has hitherto occupied a prominent position in the Medical Profession, are not of a character that they can be quietly forgotten. If the Profession of Medicine is to continue a body in any corporate sense, and especially if it is to continue a Profession for gentlemen, it must have a code of ethics which it cannot permit its leading members to infringe. It is, then, for the interest of the whole Profession that the recent proceedings at the Royal Orthopædic Hospital should be investigated and pronounced upon by some public body. Unfortunately, it seems that the Council of the Royal College of Surgeons—the body which of all others should be most anxious to uphold the standard of Professional honour and Professional morals, especially amongst its own Fellows—will not, or cannot, entertain the matter. We do not know whether it is beyond their legal powers; but as they have lately shown a disposition to stretch their legal powers to the utmost limit in other directions, it seems a pity that they should not assume the existence of a little more elasticity where the honour of certain of their Fellows, and indirectly of the whole Profession, is so deeply implicated. Several other bodies have been mentioned as affording suitable Courts of Appeal. These are the General Medical Council, the Royal Medical and Chirurgical Society, and the Medical Teachers' Association. It is for the sake of all parties—accused and accusers—that we urge the necessity of a public Professional inquiry. We repeat that it is not merely in the interests of Mr. Brodhurst or of Messrs. Tamplin and Adams, but of the staff of every Hospital in the kingdom and of every Medical man holding a public appointment, that we ask for an investigation. We have received two letters on the subject. One from Mr. Tamplin, in which, in answer to Mr. Brodhurst's statement, published in this journal of April 13—that, "prior to most of the annual and special courts, an active canvass for new governors has taken place"—he states that "he has been connected with the Royal Orthopædic Hospital from its foundation—thirty-four years since—and that he is not aware that such a practice has ever been followed." He concludes his letter thus: "It is to be regretted that Mr. Brodhurst himself voted, on the occasion of the annual court, in favour of the report of the Committee, containing a censure upon Mr. Adams and myself, and which compelled us to tender our resignations." The other letter, also in answer to Mr. Brodhurst's letter, is from Lord Abinger. We regret that its length prevents our publishing the whole of it; but the following extract will suffice to support our assertion that, in Mr. Brodhurst's own interests, the whole matter demands a full inquiry:—

"His (Mr. Brodhurst's) first statement is inaccurate. I never was in a small minority on the Committee of Management. I resigned the chairmanship for a reason quite unconnected with the case of the Surgeons, and a deputation, headed by a relative of Mr. Brodhurst's, requested me to reconsider my determination. To Mr. Brodhurst's second statement a stronger word should be applied. He says that 'prior to most of the courts of the Royal Orthopædic Hospital an active canvass for new governors has taken place.' I have inspected the last subscription-book of the Hospital from its commencement in September, 1859—a period of nearly thirteen years—and I do not find the slightest indication of any active canvass,

or of any canvass whatever; the largest number of male governors at £1 1s. entitled to vote has never exceeded six during the month previous to the date at which the annual court has been held, the average number being from three to four. Mr. Brodhurst's next statement is that at the special court his friends made votes for him. This I have no doubt is true; but the question turns on his having manufactured votes at the annual court, and not at the special court. It was at the annual court that the condemnation was passed on his senior officers, and it was at that court that every vote was made by Mr. Brodhurst, or with his knowledge, amounting in number to thirty-two, at which packed meeting the censure on the two senior Surgeons was carried; and I ask Mr. Brodhurst to deny it if he can that he voted himself for that censure, and by the action of his feet betrayed a most demonstrative satisfaction when the result of the vote was announced from the chair."

The authorities of Glasgow are fortunate enough to possess a Medical Staff of the Sanitary Department of the Board of Police, presided over by Professor Gairdner as chief Medical Officer. The services which this staff of Medical men has rendered the city it is not easy to over-estimate. We will only mention the comparative immunity of Glasgow from cholera in 1866, when Liverpool, Hull, and Leith, and many other seaports, were severely visited, as an illustration of the debt which Glasgow owes to its sanitary administrators. The Committee of the Board of Police, we are now told, have recommended that the present Medical staff be superseded by a sanitary Medical officer, who shall be precluded from engaging in private practice, and who shall be paid £600 per annum, being £140 less than the salaries of the present staff, which amount to £740. If there were any positive advantages to be gained by discarding a tried and efficient body of public officers, we should hold that the public good has paramount claims. But any advantages are hypothetical, and the whole proposal has too much the aspect of a miserable short-sighted economy to recommend it. The Glasgow authorities will certainly find that a studied disparagement of past Medical services is not likely to conduce to future efficiency; and if they discard their present staff with cholera threatening our shores, they may regret before long that they have staked the health of their community on an uncertain venture.

We would call especial attention to the paper on the probabilities of a cholera visitation in the present year, by Mr. Netten Radcliffe, read before the Association of Medical Officers of Health, which we publish in another column. Mr. Radcliffe —who has the best claim to be heard on this matter (for it is in no small degree to his exertions that the immunity of last year can be traced)—tells us that there is no ground for excessive anxiety, if only local authorities can be induced to take precautionary measures in anticipation of the evil. The possibility of their not doing so he as clearly admits. That the law is inefficient which should enforce precautions is also undoubted; yet, as Sir C. Adderley told the House of Commons on Wednesday, the Government go on postponing week after week, and day after day, all attempt to have their Bill made into a really useful law. The Ballot Bill takes the place of the health of the people, and cholera may sweep away its thousands whilst our legislators are squabbling whether Brown shall see Jones's name on a voting paper. Meanwhile, we have not settled what we are to do with the excreta of our towns, which most of us believe to be one channel through which the poison of cholera is especially conveyed. We thought we had done the right thing when we put some check on its being allowed to pollute our rivers, and had proved that its natural destiny was the soil. But now we are told by such an authority as Dr. Letheby that sewage farms on the irrigation principle are apt to become stinking morasses, and to spread dysentery and typhoid far and near. If this be true, it follows that, if the sewage be allowed to pollute the water-supply, cholera will attack us; if it be poured on the earth we shall have to encounter typhoid and dysentery. Mr. Radcliffe speaks hopefully, and relies upon the powers given by the Sanitary Act of 1866 and on Orders of Council. These may check to a certain extent the introduction and dissemination of cholera; but we must recollect, as he has reminded us, there is such a thing as "regional diffusion," and that cholera may burst out at different foci without apparent migration.

PROCEEDINGS OF THE ROYAL COLLEGE OF SURGEONS.

The following is an abstract of the unconfirmed minutes of the quarterly Council on the 15th inst.:—

The report of the Jacksonian Committee was read, and the Council approved of the subject proposed by the Committee for the Jacksonian Prize for the year 1873—viz., "Ununited Fractures"—and no award having been made for the Jacksonian Prize for the past year, the dividends were directed to be invested and added to the principal of the fund.

The usual honoraria for their lectures were voted to Professors Wilson and Flower.

The Council resolved, on application from Dr. Wadham, Dean of St. George's Hospital Medical School, to recognise the Dental Department of St. George's Hospital under paragraph 10 of the Regulations relating to the Diploma in Dental Surgery.

The following motion by Mr. Erichsen, seconded by Mr. Hilton, was carried, viz.:—"That a report be prepared by the Court of Examiners and presented to the Council at its meeting in May next, of the number of candidates who have been rejected at the respective 'Primary' and 'Pass' Examinations for the Membership during each of the three Collegiate years from July, 1868, to July, 1871, stating the number who have been rejected and who have passed from each school; and that till the Council otherwise direct a similar report be presented to the Council each year at its quarterly meeting in July."

Moved by Mr. Gay, seconded by Mr. Simon, "That the report referred to in the foregoing resolution be for publication;" and the votes of the Council having been taken on the motion, a majority was against the same.

Mr. Robert Marshall Allen, of Brackley, Northamptonshire, Surgeon 3rd Dragoon Guards, was admitted a Fellow of the College, his diploma of Membership having date June 26, 1840.

The President appointed Monday, May 15, as the date of the ordinary meeting of Council in that month.

THE VENTNOR CONSUMPTION HOSPITAL.

The biennial dinner in aid of the funds of this institution was held at Willis's Rooms on the evening of Monday, the 22nd inst.; the Bishop of Winchester in the chair. A large company of ladies and gentlemen sat down, and in the course of the evening subscriptions to the amount of £2500 were announced. Moreover, a friend of the charity had promised to build one of the remaining blocks or cottages if another would undertake to build the last. The challenge was taken up by Mr. Leaf; so that the Hospital will now be completed on the original plan. We would beg leave to direct the attention of our Medical brethren to this Hospital: as a winter residence for consumptives it is in the best spot in England. Moreover, it is intended for a class not altogether destitute, but who can afford a small weekly payment to the funds of the institution.

SEA-WATER IN LONDON.

It is difficult to overrate the value and importance of a constant supply of sea-water to London, particularly when it can be obtained at a low price. We are happy to state that there is now a Bill before Parliament, virtually unopposed, which will empower a company to bring the water from the sea at Brighton to the West-end of London, where a constant supply will be delivered. The company is restricted to very moderate prices, so that the water will be within the reach of most Londoners.

SURGICAL SOCIETY OF IRELAND.

The closing meeting for the session of 1871-72 was held in the Albert Hall of the Royal College of Surgeons, Ireland, on Friday evening, April 19. A numerous gathering of the members assembled on the occasion. Several communications of interest were made, including a paper by Dr. B. Francis McDowell on Laryngo-Tracheotomy; one by Mr. H. G. Croly on Reduction of Dislocation of the Head of the Femur on the Dorsum Ilii by Colombat's Method—the so-called "*osteostrephic* manipulation"; and a report of a case in which Pyæmia ensued after Self-mutilation, occurring in the practice of Mr. Richardson. The President, Dr. Wharton, also delivered a valedictory address, in which he reviewed the labours of the Society during the past session. He paid a feeling tribute to the memory of his late colleague Robert St. John Mayne, who a few months back had fallen a victim, at an early age, to the prevailing epidemic of small-pox. After thanking the Society for the honour they had conferred upon him in electing him as President, Dr. Wharton declared the session closed.

CONVERSAZIONE AT STEEVENS'S HOSPITAL, DUBLIN.

A very pleasant *réunion* took place on the evening of Saturday, April 20, within the walls of this venerable institution. The occasion was that of the annual distribution of prizes at the close of the winter session. The leading members of the Profession, the *ex officio* governors of the Hospital, and a large number of eminent men received invitations, and many were present to partake of the hospitality of the Medical Committee, who were the hosts for the evening. Many experiments in electricity and chemistry were performed under the direction of Dr. Cameron, and several very beautiful microscopical specimens were shown by Drs. Robert McDonnell and Bookey. The Cusack Medals were awarded to the following pupils of the school connected with the Hospital:—Messrs. Leonard H. Kellett and R. McVittie; while certificates of honour were granted to the most distinguished and industrious members of the clinical and school class.

MR. ROBERTSON GLADSTONE AND HABITUAL DRUNKARDS.

A very practical result has followed Mr. Robertson Gladstone's recent proceedings in relation to drunkards. It will be remembered that Mr. Gladstone, who is a town councillor and magistrate for Liverpool, determined to publish the names of those who were locked up for drunkenness on the Saturday night, but who were for the most part discharged before Monday morning upon the responsibility of the inspector on duty, and who did not therefore appear before the magistrates, and thus escaped publicity. It is now found that many of such are actually in the receipt of outdoor relief as paupers. It is needless to add that the ratepayers have since benefited by the removal of all such names from the list of recipients of such assistance.

ARMY SURGEONS.

In the last number of the *Army and Navy Gazette* some sensible remarks are made on recruiting the Medical Service of the Army. We quite agree with our contemporary, and trust that the authorities of the War Office will, before it is too late, open their eyes to the real position of the question. What really seems to be urgent is not so much to facilitate the retirement of Surgeons of twenty years' standing, as to hold out an inducement to the best men from the different Hospitals and Schools to enter the service, by furthering the position of its members. This may be effected, as is proposed for the combatant branches of the army, by the prospect of rank, by an increase of emoluments, and by the promise of honorary distinctions now so sparingly bestowed. At present, the inducements for the higher class of Medical students to prepare for a military career are but very small, and none but those with a love for the military service think of entering the army in preference to undertaking civil practice.

SMALL-POX JOTTINGS.

There were twenty-four cases of small-pox in the workhouse Hospital at Sheffield last week, which was a decrease of three as compared with the week before. The returns for the same period for the borough show eleven fatal cases of small-pox—a lower number than has been returned in any week since the middle of October last. Six of these were stated to be unvaccinated cases, while the others were not stated as to vaccination. ——In Poplar, last week, twelve deaths from the disease were reported, and eleven new cases brought under notice. In the same period thirty-seven persons were vaccinated at the public stations. There were at that time fifteen small-pox patients in the Infirmary, North-street, under treatment.——It was reported to the Metropolitan Asylums Board, on Saturday, that in the Hospitals under their control there was a continued diminution of small-pox cases.——Fourteen fresh cases of the disease were reported last week at Wakefield, and there were eight cases in the workhouse Hospital.——Small-pox is at present prevalent at Bombay. Monday's *Bolton Chronicle* states that the order for the Duke of Lancaster's Own Yeomanry to assemble at Lancaster on May 10, for permanent duty, is cancelled in consequence of a serious outbreak of small-pox at Lancaster.——Forty-eight fatal cases of small-pox were reported last week in the metropolis; in the two previous weeks they had been sixty-five and forty-nine.——In the Holborn district during the past fortnight three fresh pauper and five other fresh cases of small-pox were reported; three of these occurred in registered lodging-houses. They were all slight cases, after vaccination.——Eight fresh cases of the disease occurred in the past fortnight in the Whitechapel district, and two deaths.——Dr. Aldis reports two cases, last week, in the district of St. George, Hanover-square, which were sent to the Hospital.

SICKNESS AMONG PAUPERS.

From a return just issued, relating to the Medical poor relief it appears that taking the total number of paupers in receipt of relief on the same day—December 18, 1869—as 998,964, the proportion of sick to the whole number was 15·34 per cent., or between one-sixth and one-seventh of the whole. The proportion varied much in the indoor and outdoor paupers, the former being 29·5 per cent., and the latter 12·7 per cent., or about one-third and one-eighth respectively.

WOMEN-STUDENTS IN EDINBURGH.

The *Scotsman* understands that the managers of the Royal Public Dispensary, Edinburgh, have granted three of the women Medical students permission to make arrangements with the Medical Officers of the institution for instruction.

FROM ABROAD.—DR. BOWDITCH ON INTEMPERANCE IN NEW ENGLAND.

The question of intemperance has now become one of the most engrossing topics of the day, not only in this country, but in France; and the Legislatures of both countries have before them more or less coercive measures. That of France especially, coming fresh to the work, and not yet damped by previous disappointment, seems to entertain a sanguine expectation in the efficacy of severe penal enactments as a repressive agency that certainly will not be shared in this country. It is highly instructive to turn to an important paper from the pen of a veteran reformer, Dr. Bowditch, which, under the title of "Intemperance in New England: How shall we Treat it?" was read before the Boston Society for Medical Observation, and is published in the *Boston Journal* of March 21.

The idea of writing the paper suggested itself to him

while preparing "a chart illustrative of certain cosmic and social laws regulating the prevalence of intemperance over the globe," and the materials for which were derived from a correspondence carried on between the Massachusetts State Board of Health (published in their third report, just issued) and American Ministers and consuls in foreign countries and other persons of note. While preparing it, he obtained also some important information as to the operation of preventive legislation in Boston, and it is to facts of this latter kind he now chiefly draws attention. He observes that there are thousands of persons in New England who, while utterly abhorrent of intoxication, feel disinclined to assent to the doctrines of those who defend total abstinence from, or of those who defend a free sale of, intoxicating drinks, and are little satisfied with the results of the procedures of either party. Notwithstanding all efforts, drunkenness has increased, at least among the lower orders in large centres of business—the police of Boston declaring that there is a "steady increase of intemperance compared with the increase of population . . . it having increased in fourteen years 175 per cent. in spite of law." During the year when licences were issued there were fewer arrests for drunkenness than when complete prohibition was sought to be carried out.

While, however, intemperance has remained unchecked in its onward progress in Boston, "in the estimation of many a good effect has been produced in some of the smaller towns of the State, where the people have decided by vote that no liquors shall be sold. Such towns have occasionally become real asylums for the salvation of drunkards." In other medium-sized towns, however, in which the prohibitory law was in full operation, drink can be obtained at every corner, and drunkenness was never more rife. According to Dr. Bowditch's personal experience, drink can be obtained with every facility in Maine by all who wish for it.

"Surely," he says, "there never was a greater attempt of a whole people to hoodwink itself, as it were. Such promulgation of law, and at the same time such utter and open daily, and I might say hourly, contempt for it, tend to lower the political morality of each citizen consenting thereto, to corrupt the whole community, and, in fact, to bring all law into less repute among the masses of the people. Nothing, surely, can be more fatal to the best interests of a republic than such a state of things, however caused. . . . As we learn from Boston that when there was the least law there were least arrests for drunkenness, and when some relaxation of law allowed the use of milder liquors there was less intoxication than before, we have a right to ask whether similar results would not follow further relaxation, and whether the permission to sell light ales and beer and light wines would not, under certain very general rules, really be a promotion of temperance."

The following are the results of the investigations by Dr. Bowditch of the returns already alluded to:—

"1. Stimulants of some kind are found to exist, and to be used at times to excess, in every quarter of the globe. An instinct so universal cannot be annihilated; and we can only curb it by reason or by law, if it transgress the bounds of social life. 2. Intemperance is very rare between the isothermal lines of 77° F. north, and south of the equatorial isothermal 82·4°. It gradually increases on going northward (and southward probably) between 77° north and south and 50° isothermal lines, which is the area of the natural growth of the grape-vine. It becomes very rife above 50°; and, moreover, it is of a coarser, more brutal character than in either of the two previously named areas. 3. Intemperance produces little or no crime at the equatorial area, rarely in the middle area; whereas it is the great provocative of crime above 50° F. 4. Race has immense influence on the prevalence of intemperance. For example, the English race has entailed on this nation the incubus of two centuries of drunkenness, inherited from one generation to another. England now overshadows Ceylon in the tropics, and Australia in the grape region, with these same habits, thus overriding all climatic law—at least for a time, till reason and conscience and wise laws can restrain it. 5. In Europe and in other grape-growing areas of the earth, mild wines are used freely from babyhood to old age, and they do not seem to produce a nation of drunkards. 6. Similar remarks may be made on lager beer and its effects. 7. On the contrary, ardent spirits dwarf intellectually, morally, and physically the nation that uses them to excess. 8. Hence we should not classify all liquors as equally prejudicial to man; on the contrary, admitting a human instinct, we should allow the reasonable and free use of some stimulants, and discourage others. 9. We should in this country cultivate everywhere the grape vine, and permit the use of lager beer. We should open our ports to a free trade in mild 'unfortified' European wines, doing everything we can to restrain the use of ardent spirits, and closing 'grog shops.' 10. Moral suasion and education as to the horrors of intemperance have been too much neglected of late, in our pursuit of law as a preventive of intemperance. 11. Inebriate asylums should be established for the reformation of dipsomaniacs; and repeated drunkenness should be punished as a crime. 12. The sellers of liquor to a known drunkard should be signally punished. 13. All adulterations of liquor should be punished signally and promptly, as a high crime against society. 14. It would be the greatest blessing to the community if, by large co-operative work, 'Holly Tree Coffee-houses' could be everywhere opened. These could be placed side by side with the 2000 grogshops that now disgrace our city. Our correspondence proves that a great gain for temperance would be the result of such a movement."

PARLIAMENTARY.—PUBLIC HEALTH IN RURAL PLACES BILL.

In the House of Commons on Wednesday, April 24,

Sir H. Selwyn-Ibbetson withdrew his Public Health in Rural Places Bill, and gave notice of some amendments which he intended to propose on the Government measure, enabling local committees in rural districts to take the initiative in sanitary matters, with the view of relieving Boards of Guardians, who had already too much to do, and of giving greater elasticity to the system.

In the course of a short debate that followed, Sir C. Adderley reflected strongly on the Government policy, inasmuch as after the whole course of procedure on the subject of the public health during the last three years, and the terms in which sanitary measures were referred to in her Majesty's speech, the Government postponed their measure week after week, and night after night, in order to proceed with a measure of infinitely inferior importance.

MORE NOTES ON WINE.

The appearance in the *Times* of April 18 of an admirable article on the chemistry of wine prompts us to say a few words on the subject. It is no small indication of a change in the public taste and intelligence that the leading journal boldly makes the distinction between pure wine and adulterated, and unhesitatingly puts into the latter category much of that which passed as "wine" with our ancestors, and does so still with ladies of a certain age, country clergymen, and others whose brains and stomachs have long passed the stage when they seek for anything new. Wine (says the *Times*) should be the pure fermented juice of the grape, and if so should be of "moderate alcoholic strength." On the other hand, what passes for "wine" has often had its alcoholic strength almost doubled. Besides this (says the *Times*) it should be "distinctly acid in its character," from the presence of the acids of the fruit out of which it was made. On the other hand, much of the liquid which does duty for "wine" is boasted by its vendors as being "perfectly free from acidity," which pure wine never is. One of the commonest methods of depriving wine of its natural acidity is the use of gypsum, or sulphate of lime, which unites by double decomposition with the tartrate of potass naturally present in the wine, precipitating tartrate of lime, and leaving sulphate of potass in solution, which is bitterish and sickly, and if it does no great harm cannot do good. Acids in some shape, nevertheless, are universal articles of diet, demanded by the appetites and instincts of man, and sanctioned as medicines by the experience of Physicians. Our own belief is that men in good health, who take muscular exercise, and, above all, who perspire freely, are much the better for acids; and, with regard to many others, that the appetite for acids and power of taking them is an index to the state of general health. The only legitimate way of lessening the percentage of acid in wine is to keep it, and let the *tartar*

precipitate itself. We are glad to see that the *Times* critic discountenances all attempts to make, to imitate, or to tamper with wine by chemical processes. He shows that some wine merchants of Spain and Germany have characters to retrieve, and meanwhile draws attention to the markets of Hungary and Greece, "where wine is too plentiful to render adulteration profitable, and where the fermented juice of the grape may still be obtained in its purity, with the wholesome and pleasant subacid freshness of its youth, and with a capacity to develope fragrant ethers in its progress towards a glorious old age."

We say "Amen" to all this. Believing that the way to put down the stupefying use of spirits is the use of wine, we delight in the evidence which is given by the press, as well as by her Majesty's Customs, of the increasing importations. Mr. Shaw, who writes incessantly to the *Times* in favour of letting in the highly brandied wines of Spain and Portugal at a shilling duty, to compete with the purer wines of other countries, is obliged to confess that the tide goes against him. From 1856 to 1859 Spanish wine constituted about 40 per cent. of the total quantity imported; so it does still; but Portuguese, which from 1856 to 1859 formed 30 per cent., now forms barely 20 per cent. of the whole consumption, whilst the importation of French wine has risen from 8 to 27 per cent. Yet, when all is said, the total consumption per head of the population, which was one bottle and a half in 1856-59, was only three bottles in 1871. Wine, then, however slowly, is coming into greater use, and light wine is supplanting port and the "heavies."

The *Times* justly points to the wines of Hungary and Greece. The former have from their intrinsic merits obtained a high place in the Physician's dietetic list. Carlowitz is become almost as common as cod-liver oil in the treatment of the phthisical. And we now find that this is no new discovery. Five years ago, when we were writing on the subject, people wondered with a half-shudder at the notion of getting good wine from Carlowitz or Szamorodny; but lo! a little research shows that our ancestors knew all about them, although the art of prescribing them was like that of fresco or Venetian glass—a dropped art—till its modern revival, in which we claim to have had a share. Friedrich Hoffman, the great Professor of Medicine at Halle—the man from whom Cullen derived his inspiration—he who invented that *liquor anodynus mineralis*, which we call compound spirit of sulphuric ether, that boon to the asthmatic and hysterical—was quite as enthusiastic about Hungarian wines as we are.

Greek wines need not our pen to tell of their ancestry. The vines grow on a volcanic soil, which Mother Earth has, as it were, prepared as a fit cradle for them; they bask in the most glorious sunshine—in fact, come from a land where "only man is vile." Since their importation they have gained wonderfully in softness and refinement. The St. Elie is remarkable for developing that flavour which distinguishes the Amontillado sherry, and which the ablest chemists believe to depend on a production of aldehyde. The Keffesia, red and white, has more of the characters of Burgundy. A bottle of Noussa, which we have, as we write, unearthed from a cellar where it has been these three years, is a remarkably good wine—soft, subastringent, no predominant acidity, good flavour, clean taste—quite a wine for a gentleman. The Patras is lighter, and like hock. But of all these wines it must be said that they are full of vinous properties, acidity included; they are not thin and watery, but well calculated to excite the appetite; and he that can eat a salad may drink St. Elie. As with the Hungarians, so with these, we find a *catena* of authors from Homer down to Edmond About, who, by a series of "undesigned coincidences," have shown that the Grecian wines have had a constant succession of worshippers, though, like the Hungarians, their *cultus* had passed out of view till revived by the reduction of the wine duties. Sir Edward Barry, M.D., F.R.S., in his "Observations on Wines" (London, 1775), says of them—"As from their peculiar fine flavour they are not easily adulterated, they are seldom imported."

Amongst French wines, we may bring to our readers' notice a pale amber light Gauphine, the product of the vitieultural skill of our *confrère*, Dr. D. Dulac, of La Gauphine, near Béziers, l'Hérault. Dr. Dulac is well known at the tables of many members of our Profession, who drink his marvellously cheap and invigorating red Gauphine. The white Gauphine ought to have great vogue amongst the middle-classes; and there is a higher, older quality of the red (*haute Gauphine*), which is not expensive, but very clean, hearty old wine.

Hungary, Greece, and France can boast an ancestry. But now we must plead for a country whose place on the map 200 years ago was a great blank, labelled *Terra Australis Incognita*. During the last ten years the three great Australian colonies have raised their production from 444,917 gallons(a) to 1,933,403 in 1870, and if they do but keep clear of the *oidium* and other scourges, will probably increase at the rate of 1,000,000 gallons *per annum*. Thus they will supply their own great and growing communities, and export largely, as we hope, to the mother country. Nay, more, there is India. We hope the day is not far distant when *Auldana* and *Bukkulla* will be handed round at Government House at Calcutta and Madras, instead of the hock and claret now sent round from Europe.

Of the Australian wines at present on sale in London we know three stocks: one is the *Tintara*, from South Australia, grown by our *confrère*, Dr. A. C. Kelly, and now sold by Mr. P. B. Burgoyne at The Tintara Office, 50, Old Broad-street, E.C. It is an economical wine, calculated to please those whose conversion from the "drugged chalice" of port is not complete, and—as we said of it two years ago—is "robust and satisfying."

The next is the *Bukkulla*, red and white, which are amongst the many kinds of wine cultivated by Mr. John Wyndham, of Sydney, New South Wales. A Frenchman who visited us a short time ago pronounced the white Bukkulla simply perfect—a wine of exquisite finish; the red is a good stout, full-bodied, nutritious wine, and both (bottled in Australia) are to be had of Messrs. David Cohen, 19, St. Helen's-place, E.C.

Again, whoever has assisted at a wedding at St. George, Hanover-square, may remember a small street at the back, called Mill-street, once famous for an oyster-shop (in the days when oysters yet existed), and a place where the race of flunkeys imbibed the spirituous whilst their betters were drinking in the spiritual. In that street is the Auldana office for the sale of the wines of Mr. Patrick Auld, from his vineyards in South Australia. Some of the white muscatel Auldana is truly superb, and in the fulness of its flavour reminds one of the old Dry Ruszter. The Red or Ruby Auldana is a very fine wine: well matured, generous, not like claret of which you should drink a bottle, but telling in a single glass; albeit a wise man will empty a bottle, if he has a friend to help him. We may say that all these Australian wines are at prices much below their merits.

The wise Physician is he who prescribes judicious change of air, water, place, occupation, food, and drink. Life is kept up by the conversion of matter; but matter, to be converted, must first be assimilated, and both palate and stomach require the stimulus of change to keep them vigorously at work. Hence, another wine, even of the same sort, may spur a flagging appetite, especially if rational curiosity adds its charms; and the Physician who is treating chronic disease, whose patient's appetite is worn out on one wine, may make his choice from the great variety—Greek, Hungarian, and Australian—which we have ventured to point out. Even the most bigoted old stomach, which looks askant on claret and hock as sour inventions of the enemy of souls and bodies, if it can be beguiled into one trial, will generally be tempted to go on, if the choice was a lucky one.

DR. LETHEBY'S ANNUAL REPORT FOR 1870-71.

Four subjects are saliently noticed in Dr. Letheby's report—(1) Census facts, (2) the mortality and sickness, (3) the water-supply, and (4) the record of sanitary work.

1. As to the Census—"In the year 1851 the population of the City of London rose to 129,171. This is the largest population of the City during the present century, and it is perhaps the densest on record, for it is in the proportion of nine persons to every house, or 180 persons to an acre. In 1861 the number of the population fell, according to the Registrar-General's Returns, to 112,063 persons, which is at the rate of 8·4 persons to each inhabited house, or 155 persons to an acre; and then, at the census of 1871, the number of the resident inhabitants in the City was returned at only 74,732, which is less than six-tenths of the population of 1851. It must not be forgotten, however, that the census of the City was taken at a time when the number of the population was at its very lowest; for at midnight on Sunday, in the early part of April, the City

(a) See Ridley's Wine Circular for April 12, 1872; also the Statistical Register of South Australia for 1870.

is to a very large extent deserted. . . . . But in point of fact, the day population of the City cannot be less than a quarter of a million; for, to say nothing of the 509,611 persons who, at the day census of 1866, were found in the City as clients and customers, there were 170,133 merchants, shopmen, clerks, and others engaged in the City warehouses and shops. These, with the 74,732 who sleep in the City at night, make a total of 244,865 persons as the resident day population of the City."

2. As to the mortality, especially from small-pox—"The chief feature in the table of causes of death is the large mortality from small-pox—a mortality which has been only once exceeded since the year 1848. . . . The disease, at intervals of about every two years, acquires epidemic violence, and becomes alarmingly fatal, and then declines for a couple of years. Taking, for example, the two years successively, from 1849 to 1871, it will be seen that the number of deaths in each of the biennial periods is as follows:—50 in 1849-50, 137 in 1851-52, 24 in 1853-54, 91 in 1855-56, 20 in 1857-58, 107 in 1859-60, 8 in 1861-62, 66 in 1863-64, 37 in 1865-66, 49 in 1867-68, 5 in 1869-70, and 88 in 1871—the average annual mortality of the epidemic periods being 49, and of the alternating years only 12. This condition of things is not peculiar to the City, but is common to the whole metropolis, and to every large town in England, although the intervals of the epidemic are not in all cases the same. . . . It is also worthy of note that the proportion of cases in which vaccination had been performed has been steadily advancing during the last twenty years; for, according to the returns of the Small-pox Hospital, Upper Holloway, it appears that during the sixteen years which terminated with 1851, the average number of vaccinated cases was only 53 per cent. of all the patients admitted, whereas in the epidemic years of 1854, 1855, and 1856 it amounted to 71 per cent.; in 1859-60, it was 78 per cent.; in 1862-66, it was 81 per cent.; and in 1871, it was 91·5 per cent. These facts are suggestive of two things, namely:—1st, That vaccination is often imperfectly performed, and therefore fails of its prophylactic power; and 2nd, That even when it has been well performed in infancy, the effect of it is weakened by time."

3. As to the water-supply, it is well known that while some high authorities who watch the quality of the water with unceasing vigilance are apt to describe its condition in the darkest terms the facts permit, and to present to the public mind the totals of impurity in colossal figures, others treat the matter more calmly—they pooh-pooh the twenty grains of chalk, or thereabouts, which all Thames water contains, and do not alarm themselves about moving organisms. Dr. Letheby is one of the latter school, and makes light of the turbidity caused by occasional floods:—"The turbidity has been at all times due to the presence of a very small quantity of finely divided clay in which there was occasionally a trace of vegetable tissue; and no doubt it had been caused by the heavy floods of the river. Although perfectly harmless, a slight turbidity of the water is sure to command attention, and may easily be made the subject of popular clamour."

4. Dr. Letheby is very emphatic on the necessity of a well-organised system of sanitary inspection and government for the port of London; and it is to be hoped that Mr. Stansfeld will put the nineteenth section of his Public Health Bill into good working order and get it passed. "At present, the small area of the port of London—extending from the Tower to the Temple—is the only part of the port which is systematically inspected in accordance with the thirty-second section of the Sanitary Act, 1866. This is manifestly an inconsistency; for, as I gather from a report by Mr. Harry Leach, the Resident Surgeon of the Seamen's Hospital, there are about 25,000 vessels entering the port of London yearly, besides about 2300 sailing barges, and nearly 4000 dumb barges, which belong to the Thames. These represent a floating population of about 15,000 persons, which are at present almost entirely without sanitary supervision; and that they require it is shown by the results of the inspections of vessels within the limited area of the City. . . . Fever and scurvy and epidemic diseases are very prevalent in the vessels which trade with this port, and are referable to defective sanitary arrangements. And not alone do they affect the floating population, for they are generally the means whereby certain forms of zymotic disease are imported into this country." There are thirteen nuisance authorities in the area of the port of London, besides the Conservators of the Thames and the Commissioners of Customs and Board of Trade. These should be reduced to one; and of all possible units, Dr. Letheby argues that the Conservators of the Thames would be the most efficient.

An account of the mortuaries established for the reception of the dead of all classes, and of convictions for selling unsound meat, and other sanitary work, concludes Dr. Letheby's very practical and interesting report.

ON THE RELATIVE

POWERS OF VARIOUS SUBSTANCES IN PREVENTING THE APPEARANCE OF ANIMALCULES IN ORGANIC FLUIDS.(a)

By JOHN DOUGALL, M.D. Glasgow.

THREE series of experiments were made—one with vegetable, and two with animal matter—of which the following are a few of the more important details:—

Sixty-seven substances were selected for trial, consisting of irritant, narcotic, and narcotico-irritant poisons; also several others, whose sensible properties or alleged antiseptic powers recommended them as worthy of experiment. Nitrate of ammonium and spirits of nitric ether were added for contrast. Sulphite of soda, perchloride of iron, and one or two other such bodies were unintentionally omitted. To three drachms of a solution consisting of one part of the substance to be tested in 500 parts of water was added one drachm of a filtered infusion of hay, of the strength of half a drachm of dried hay to a fluid ounce. This mixture was put into a phial. Where the substance was volatile the phial was kept closed, otherwise it was left open.

The *modus operandi* with the animal substances was similar, the only difference being that human urine was substituted for infusion of hay in one set of experiments, and a mixture of beef-juice and egg-albumen in another; while only half a drachm of the latter mixture was added to three drachms and a half of the test solutions. Three blank experiments were first made—*i.e.*, three phials were filled respectively with water and infusion of hay, water and urine, and water with juice of flesh and egg-albumen only—in order that any contrast in the growth of animalcule in the simple and supposed preventive solutions might be noted. All the phials, when filled, were placed in a medium temperature of about 60° Fahr., and exposed to a moderate light. In two to six days the microscopical examination of each series, with a magnifying power of 700 diameters, was begun and concluded. The simple solutions were found teeming with bacteria, vibriones, monads, amœbæ, torulæ, etc. The results of the examination of the various test-solutions were necessarily of two kinds—life or no life—the one or the other being inferred from the presence or absence of moving bodies only.

In those cases where motion was perceived, the phials were refilled with stronger solutions; conversely, weaker solutions were tried, and, after being allowed to stand as before, were again examined microscopically, and the process repeated till a point was gained where none, or only the faintest movement, was perceptible. Thus the strength of the solution was ascertained, and its preventive power noted—*i.e.*, the quantity of the foreign substance in the mixture in which no animalcule were observed after the lapse of six clear days.

The substances used have been classified into fifteen groups, according to their chemical relations, placing the group that shows the highest average preventive power "first" on the table, and the one that shows the lowest "last." The various substances have also been tabulated in their respective groups on the same principle.

The Metallic Salts, from their showing the highest average preventive power, form *Group I.* Sulphate of copper here has not only the highest individual average, but its three preventive points, in the three solutions, are very much higher than those of any other substance in the group. Nitrate of silver, on the other hand, exhibits the lowest individual average. This is undoubtedly to be attributed to its peculiar property of being decomposed by the combined action of light and organic matter, and further, in the urinous solution, by the chlorides present.

In *Group II.*—the Organic Acids—"benzoic" has the highest, and "acetic" the lowest average preventive power. Of the seven members composing this group, carbolic acid occupies the fifth place.

Group III. Salts of the Alkaline Earths.—Here chloride of aluminium is "highest" (I do not refer, of course, to the commercial liquid chloralum, which, however, has been included), and a sulphurous-smelling fluid, said to be bisulphite of lime, "lowest." Were it not for the extremely high pre-

(a) Paper read before the Association of Medical Officers of Health.

ventive point (1 to 2000) of the chloride of aluminium in the hay column, this group would occupy a comparatively subordinate position.

The average of *Group VIII.*—Inorganic Alkaline Salts—would be "extremely low" were it not for that of the bichromate of potassium, which has the "very high" average of 1 to 900. The salts of soda and Condy's fluid are all blank in the urine and albumen columns, except the borate of soda, which, however, has a merely nominal preventive power.

Group X. The Aromatic Oils—viz., oil of caraway, cassia, and peppermint—are inert in the urinous and albuminous solutions, but show good averages in hay.

Group XIII. Animal Substances.—Here the extract of cantharides shows three entire blanks, while the tincture of musk is blank in the urine and albumen columns.

Group XV. The Poisonous Vegetable Extracts—viz., extract of aconite, belladonna, Calabar bean, digitalis, lobelia, tobacco, and curara—show blanks in all the columns; which is not surprising, seeing that their aqueous solutions, *per se*, soon teem with life.

Premising that an infusion of hay is poorer in organic matter than urine, and that the latter fluid is less rich than albumen, it appears from the experiments that the germ-generating or developing force is strongest where the organic matter is richest, and weakest where the organic matter is poorest. Hence the "quantity" of the "preventive" substance requires to be proportioned to the "quality" of the "organic." Many of the bodies experimented with merit special observation, but only a few can be noticed.

First, as to carbolic acid. If germs are the cause or even indicative of putrefaction, then this substance is a very mediocre antiseptic, being surpassed as a preventive by nearly thirty of the commonest bodies. Its toxic power on microscopic organisms is also considerably exceeded by even a greater number of the same bodies, and its vapour at ordinary temperatures under usual conditions has absolutely no effect in arresting putrefaction and the appearance of bacteria, vibriones, penicillium, etc. These results, whatever may be alleged to the contrary, I have disinterestedly, carefully, and repeatedly confirmed. It is remarkable in proof of the foregoing, that all well-known disinfectants, as sulphurous acid, nitrous acid, permanganate of potassium, bisulphite of lime, protosulphate of iron, chloride of zinc, chloride of aluminium, chlorine, bromine, and iodine decompose sulphuretted hydrogen, while carbolic acid does not. Chloride of lime, hard soap, chloralum, and common salt are low preventives. The hyposulphite, borate, and sulphate of soda are useless as such. Chlorate of potassium, so much used as a gargle in stomatitis, diphtheria, etc., where it is held to act by destroying certain fungi or germs of specific poison, has not only no preventive power, but actually accelerates decomposition. Caustic potash has the minimum of preventive power —1 to 10. Such a mixture is highly caustic; still it was necessary to use it of such strength, as at 1 to 25 bacteria and vibriones were abundant. At 1 to 10, though no life be present, nor, indeed, could possibly be, the mixture is nevertheless very putrid—an obvious proof that organisms are not the cause of putrefaction. *A strong solution of beef-juice may be made putrid almost instantly by adding caustic potash.* Bichromate of potassium stands very high.

Dr. A. Smith shows, in a table of experiments in his work on disinfectants, "to determine the amount of each of fourteen of the most energetic antiseptic bodies necessary to prevent the evolution of sulphuretted hydrogen in a mixture of equal parts of blood and water," that all of them, in from six to ten days, had evolved more or less of that gas except the one containing bichromate of potassium. It is strong proof of the decided and valuable antiseptic powers of this salt that the same result should be gained by two different observers using two different tests—*i.e.*, the evolution of sulphuretted hydrogen, and the appearance of animalculæ—and the one also being unaware of the results obtained by the other. Observing the low power of potash and the high power of bichrome, it seemed certain that the former weakened the power of the acid of the latter.

Chromic acid *per se* was therefore tried, and found to have a preventive power surpassing all the others, its average being 1 to 2200, while that of carbolic acid is only 1 to 266. These results were subsequently confirmed, though not so strikingly, by a number of comparative experiments with the two acids on fresh and putrid blood, muscle, pus, urine, and on faecal matter. The coagulating power of chromic acid in albuminous solutions has been compared with that of most metallic salts, acids, etc., and found to exceed them all—*e.g.*, it has about ten times the power of carbolic acid, fifteen times that of nitric acid, twenty times that of bichloride of mercury, and 150 times that of chloralum.

The following arrangement exhibits, in juxtaposition, the antiseptic and disinfectant properties of chromic acid and carbolic acid:—

Chromic Acid.	*Carbolic Acid.*
Free from smell.	
Strong affinity for water.	Weak affinity for water.
Hardens animal matter.	Slightly volatile.
Combines with ammonia.	
Decomposes sulphuretted hydrogen.	
Oxidises organic matter.	
A powerful germicide.	A weak germicide.
A strong preventive of animalcules and fungi.	A moderate preventive of animalcules.
A powerful coagulator of albumen, gelatine, and mucus.	A strong coagulator of albumen.

FOREIGN AND COLONIAL CORRESPONDENCE.

AUSTRIA.

Vienna, April 15.

Lostorfer's Syphilitic Blood-cells: Professors Wedl and Stricker; War in Scientific Circles.

Dr. Lostorfer's corpuscles seem to have become a standing article in the Medical Society of this town, having caused the formation of two parties violently opposed to each other. At the head of the one Professor Stricker has been placed, against his own inclination; whilst Professor Wedl has voluntarily undertaken the lead of the other. It will be remembered that in a recent meeting of the Medical Society Dr. Lostorfer came forward with the discovery of corpuscles peculiar to the blood of syphilitic patients, by means of which the diagnosis of syphilis may be made by the microscope. This discovery, if true, would have been of the utmost importance, giving a positive basis to the much-discussed question of the relation of microscopic growths to contagious and infectious diseases. Everybody was struck with the novelty of the discovery; and it cannot be said that those who have worked in the same direction as Lostorfer did have listened to Lostorfer's lecture without feelings of jealousy. The first who stepped forward to oppose the new theory was Professor Wedl, whose work on pathology has been published by the New Sydenham Society. We are, however, sorry to say that this renowned worker came forward too hastily—neither sufficiently furnished with facts to oppose Lostorfer, nor even acquainted with Lostorfer's investigation: nay, he had not even seen the corpuscles in question, but had them described by two of his disciples. Standing on such loose ground, he nevertheless denounced Lostorfer's corpuscles to be nothing but fat-cells, which are squeezed out from the skin when the blood is drawn for microscopic investigation. He further urged that these corpuscles may be seen a few hours after the preparation is made, and particularly when water is added to the blood. To this Professor Stricker simply replied very clearly, that if a man of Professor Wedl's renown assures us he has seen fat-cells, there can be no doubt that it was so; but in the present instance it evidences simply that Professor Wedl has seen fat-cells, and not Lostorfer's corpuscles. Dr. Lostorfer has expressly stated—and we have communicated in this journal—that the corpuscles only after the fourth day assume such a size as to become visible under the microscope; that they disappear at once if water is added to the blood—so that an object is at once rendered useless if by some chance or accident water had been admixed with it. If, therefore, Professor Wedl had done all which Lostorfer has strongly advised to avoid, he had of course no chance whatever to see the corpuscles in question. At this point the discussion became hot. Dr. Neumann, the well-known dermatologist, supported Professor Wedel; and when Professor Stricker again replied he made use of the expression that one must be a well "rubbed-up" microscopist (*ein geriebener Microscopiker*) in order to repeat Dr. Lostorfer's investigations. From this moment the signal was given for *guerre à outrance*, and, what is more peculiar, from this moment Dr. Lostorfer, the original investigator, was put aside, and Professor Stricker made responsible for the investigation of the former—thus, as I said, involuntarily placed at the head of one of the opposing parties. This was the first evening of the great

battles. Skirmishing, however, has been going on continually in all the Vienna medical journals; and at every meeting of the Medical Society a paper-war was kept up, Professor Wedl complaining, by letters sent to the Society, of Dr. Auspitz, the secretary, having been biassed by party feelings in framing the report of the discussion, and also accusing Professor Stricker, the editor of the Society's journal, of likewise being partial in performing his duty. To these accusations Professor Stricker and Dr. Auspitz have responded, eliciting again written replies from Professor Wedl, each new letter being more excited, more deviating from the original question, and becoming more personal, and even offensive. Under such circumstances it is evident that the Society's meetings are not always of a very agreeable character. But the war has already produced some good—namely, whether Dr. Lostorfer's teachings be true or not, they have induced the microscopists to again pay attention to the investigations of blood, which have been neglected in the last two or three decenniads. One of the best experienced blood-investigators, Professor Stricker, is already at work, which he has been forced to assume. From what we have heard of his recent investigations, one thing seems certain—namely, that something has been discovered by Dr. Lostorfer which hitherto has not been known in blood. The corpuscles, according to Professor Stricker, exist decidedly; they are of a round shape, grow evidently, but form no projections (as described by Dr. Lostorfer) giving to the observer the impression of projections if a smaller corpuscle is adjacent to a larger one. Whether or not the corpuscles are peculiar to syphilitic blood Stricker has not yet made out. If I am well informed, we may expect the publication of Professor Stricker's researches in a short time. Whilst in the one camp preparations are thus made for a new battle, Professor Wedl's army is likewise busy to meet the enemy's movement, or, if necessary, to open the hostilities. Dr. Neumann, we hear, has likewise been engaged in the solution of the important question, and the result of his researches, I hear, we shall read in one of the next impressions of the *Wiener Wochenschrift*. In conclusion, it may be mentioned that whilst the minds of Medical men are heated by Dr. Lostorfer's discovery, Dr. Salisbury is preparing a paper for Dr. Hallier's *Journal of Parasitology*, in order to claim the right of priority of Dr. Lostorfer's discovery.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

April 16.

THE BOOTLE HOSPITAL: LORD DERBY ON PREVENTIVE MEDICINE; ABUSES IN SELECTING HOSPITAL PATIENTS AND HOSPITAL OFFICERS—MR. LOWNDES ON MEDICINES.

ONE of the earliest acts of the recently incorporated borough of Bootle was to build a public Hospital, and on the 10th inst. the Earl of Derby, who had given the site and laid the foundation-stone, formally opened the building. In his address on the occasion, he drew attention to the rapid growth and wide spread of a belief in the importance of preventive Medicine, and remarked it as an especially honourable feature in the Medical Profession that workers in that field have never been rare among its members; and that while, on the one hand, no class of society has so freely given its time and care for the relief of suffering among the poor, so, on the other hand, no set of men have so habitually looked beyond the mere temporary relief of existing evils or so strenuously asserted the doctrine that prevention is better than cure. He pointed out so clearly the necessity of an education of the people in sanitary knowledge—if sanitary laws are ever to be really efficacious—that I shall not apologise for quoting his words at some length. "I am deeply convinced," said Lord Derby, "that no sanitary improvement worth the name will be effected, whatever Acts you pass or whatever powers you confer upon public officers, unless you can create a real and intelligent interest in the matter among the people at large. In the first place, you cannot get laws effectually put in force where they interfere with the profits or convenience of individuals unless they are supported by opinion. In the next place, whatever administrative measures can do for the public health—and they can do a great deal—they can never supersede the necessity for personal and private care. It is no good providing pure water for drinking if those who are meant to consume it prefer less innocent fluids, and a great deal of them. It is no good setting up public baths and washhouses if people do not care to use them; though let me say, in passing, I think the want of such institutions on an adequate scale is one of the chief defects of our great towns. It is no good purifying the atmosphere from smoke and foul vapours—though that is one of the objects which in these parts we ought to keep most steadily in view—if when people have got clear air they will not let it into their houses. The State may issue directions, municipal authorities may execute them to the best of their power, inspectors may travel about, Medical authorities may draw up reports, but you cannot make a population cleanly or healthy against their will, or without their intelligent co-operation. The opportunity may be furnished by others, but the work must be done by themselves. That is why, of the two, sanitary instruction is even more essential than sanitary legislation. For if, in these matters, the public knows what it wants, sooner or later the legislation will follow; but the best laws in a country like this are waste-paper if they are not appreciated and understood." In the latter part of his address, Lord Derby said—"There are only two dangers which an institution like this has to guard against. One is that its gratuitous benefits should be taken advantage of by a class of patients who can afford to pay for the help they get. The remedy is care and honesty in the distribution of letters of admission. The other danger is that the appointments should be given away by personal favour or liking, or to the candidate who is most active in his canvass. Now, that is—to put it plainly—a matter of life and death. Whoever votes for putting A instead of B in a post of that kind, knowing or believing A to be the less competent of the two, is morally responsible for whatever injury to life and health may ensue; and it is not the slightest diminution of that responsibility that he has been flattered or talked over into giving his vote, or, as very often happens, that he has given it, without inquiry, to the first person who asked for it." It is greatly to the credit of Bootle that her Hospital is opened free of debt.

At a very numerously attended meeting of the Liverpool Medical Institution on the 11th inst., Dr. Cameron, the President, in the chair, the following motion was introduced by Mr. F. Lowndes, and after a long and interesting discussion was carried, with only one dissentient:—"That the meeting approves of the scheme for the examination of midwives recommended by the Obstetrical Society of London, and strongly advocates its adoption, with such modifications in detail as local circumstances may require, believing that a uniform and higher standard of qualification will improve the position and usefulness of midwives, and secure for them the confidence of the Profession and the public."

GENERAL CORRESPONDENCE.

THE POISONING CASE AT THE LONDON HOSPITAL.

LETTER FROM MR. W. J. NIXON.

[To the Editor of the Medical Times and Gazette.]

SIR,—With reference to a paragraph on accidental poisoning in your impression of this date, I much regret that the information on which you have acted did not give a correct version of the facts. They are simply these:—A porter of this Hospital applied for and received from one of our dispensers some ordinary cough linctus, as if for himself, having previously derived benefit from its use. It was given to him, just as medicine would be given in a druggist's shop to any servant in his employ, and the dose was duly noted on the bottle. Influenced, however, by motives of mistaken kindness, the porter gave it to a friend, and by that friend it was administered to his own child. For the ultimate result, lamentable as it was, I leave to your sense of justice to decide whether the Hospital, its discipline and management, are in any way responsible. I am, &c., W. J. NIXON,
House-Governor and Secretary.

London Hospital, Whitechapel-road, E., April 20.

A COMPLAINT ANSWERED.—In reply to a complaint from the Chairman of the Managing Committee of King's College Hospital, Dr. Evans, the Officer of Health for the Strand district, states that last year the District Board of Works provided an ambulance for the conveyance of persons suffering from infectious diseases, and that no application has up to the present time ever been made for the use of the district ambulance by the authorities of that institution.

NEW BOOKS, WITH SHORT CRITIQUES.

Sciatica, Lumbago, and Brachialgia: their Nature and Treatment, and their immediate Relief and rapid Cure by the Hypodermic Injection of Morphia. By Henry Lawson, M.D., Assistant-Physician to St. Mary's Hospital, and Lecturer on Physiology in the Medical School. London: Hardwicke. Pp. 200.

*** The greater portion of this very excellent volume having appeared in our columns, we shall be spared the task of doing more than expressing an opinion as to the nature and quality of its contents. It has been said that one fact is often worth a bushel of opinion; and in this book one fact certainly stands out in such bold relief that what remains is paled before it. This fact was Dr. Lawson's own suffering from sciatica, so severe that nothing but death seemed to promise relief until the hypodermic injection of morphia was tried. Instant relief was obtained, and the assiduous use of the same remedy completed the cure. Naturally enough, Dr. Lawson clings to the remedy which has effected so much for himself, and is, we fear, as a consequence, inclined, not perhaps to overrate the value of morphia injection, but to undervalue other measures of treatment; for as, undoubtedly, neuralgic pain arises from more than one cause, our duty is to ascertain as far as we can the nature of that cause, and if we can remove it. It cannot be said that injection of morphia answers to any one of these demands, however valuable a remedial agent it may be, and we are quite willing to admit what Dr. Lawson claims for it; yet it is only treating a symptom, though a terribly severe one. Therefore we would counsel the Practitioner whilst using Dr. Lawson's method to try to go a little beyond him in ascertaining the true cause of the neuralgic pain. But as a good practical book with an idea in it we can commend Dr. Lawson's to the Medical world.

Transactions of the Obstetrical Society of London. Vol. XIII., for the year 1871. London: Longmans. Pp. 335.

*** Year by year this Society is gathering together stores of knowledge and the results of ripe experience, and embodying them in these *Transactions*. Its reputation is spread abroad wherever the obstetric art is studied—an art which itself has done much to redeem from the position of obscurity to which it had been discarded by other branches of the Profession. Among the most interesting communications are those by Dr. Playfair, "On Irritable Bladder in the latter months of Pregnancy"; Dr. Braxton Hicks and Dr. Phillips, "On Mortality after Obstetric Operations"; Dr. Graily Hewitt, "On the Vomiting of Pregnancy"; Dr. Meadows, "On Pelvic Hæmatocele"; Dr. Tilt, "On Uterine Inflammation"; Dr. Braxton Hicks, "On the Contractions of the Pregnant Uterus during Pregnancy"; Dr. Konrad, of Pesth, "On Prolapse of the Genital Organs"; Dr. Snow Beck, "On the Structure of the Uterus during Pregnancy," etc., etc. We congratulate the Society on the increasing interest taken in its work on the Continent; for London, mainly owing to its labours, is rapidly becoming a valuable and well-worked field of gynæcological study.

Gutch's Literary and Scientific Register and Almanac for the Year 1872. London: Virtue.

*** Though "Gutch" has reached us late, and though his fame is, we confess, new to us, we feel bound to say a word on his behalf. His work contains the most extraordinary amount of information on almost every subject under the sun we have seen. We cannot, of course, vouch for its accuracy, but its extent is something wonderful. Talk of a man being a "walking dictionary," that would be nothing to being a living Gutch. Soberly, the work contains information on almost every subject, and what it gives is well selected.

Griffith and Henfrey's Micrographic Dictionary. Third edition. Parts III. to VII. London: Van Voorst.

*** We have already pointed out to our readers that a re-issue of this very valuable work is going on, and that it is brought within the reach of all by the price of each number being fixed at half-a-crown. We take leave again very earnestly to commend it. Its excellences are not half wide enough known, and we know of no work so valuable to the man of cultivated scientific tastes as a book of reference and a working manual in minute natural objects. Take one thing: we don't know of any work so useful on cryptogamic botany.

It is expected that the Halifax Small-pox Hospital will be opened at the beginning of next month. No Medical officer has yet been appointed for the borough.

REPORTS OF SOCIETIES.

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

Saturday, April 20.

Dr. Druitt, President, in the Chair.

An abstract of a paper by Mr. F. W. Lowndes, of Liverpool, was read on Medico-Legal Evidence and on Infanticide. He aimed at the prevention rather than the punishment of crime, and desired greater efficiency and stringency in the registration of births, living or still; and that the practice of midwifery by women should be encouraged by the Legislature. Thus he hoped to render self-delivery and concealment of birth more difficult, whilst he trusted to improved moral and social conditions for the prevention of unchastity. An elaborate table of coroners' inquests on children at Liverpool was appended, by which it appeared that 127 bodies of infants had been found in Liverpool in the last three years, on which inquests were held; with verdicts of wilful murder in twenty-eight cases, neglect twenty, stillborn thirty-three, the remainder "found dead" or "no evidence."

Dr. Aldis read a paper entitled "On a Sudden Outbreak of Small-pox in Belgravia, and the necessity for amending the 38th section of the Sanitary Act, 1866," as follows:—"I received a letter from a lady residing in Wilton-crescent, stating that a death from small-pox had occurred at a milkseller's in Motcomb-street on May 23, 1871. Mr. Charles Hunter, Surgeon, of Wilton-place, complained to me on June 5 'that he had been called to six or seven patients within the last week in the immediate vicinity of the milkseller's shop—three for certain, who were regularly served from the shop—the milk being furnished by the mother and son, both covered with small-pox.' I went to the house on June 6, and ascertained the following facts:—Two sons aged 19 and 11 years, with a daughter of 13, were attacked with small-pox about the second week in March; the second son, aged 17, was taken ill in the latter part of March, the mother also about the middle or the latter end of April, and another son, aged 15, on May 3, who died May 23—so that six in family had suffered, besides a servant, who left her situation on account of the infection in the house, but was afterwards attacked and removed to the Hospital, from which she was taken on June 9 to a convalescent asylum. The mother, who presented marks of small-pox on her face, told me that she had been well about a month, and served customers with milk during that time when her husband was from home. She also admitted that her eldest son sold milk shortly after his illness. I called upon a gentleman at No. 3, Wilton-place, on June 7, who frankly told me that the butler was removed ill with small-pox to Highgate on June 1, after having waited at dinner, on May 30, upon the occupier of the house (a lady) and another lady, both of whom took the complaint. The family were supplied with milk from the same shop. The butler died in the Hospital on June 7. It was believed that the disease had nearly ceased about the middle of May, but a boy was attacked on the 21th, at No. 4, Motcomb-street, and a man in Kinnerton-street was sent to the Hospital on the 26th. A boy came to be vaccinated by Mr. Hunter after buying milk from the milkseller's son while recently marked with small-pox. A lad belonging to Lady Essex's stables in Belgrave-mews North had been served at the shop in Motcomb-street by one of the sons on the morning of the brother's funeral. A woman living in Kinnerton-street went for milk and sent for it by a strange girl; the former was taken to the Hospital. The small-pox seems then to have rapidly increased in this particular neighbourhood, the focus being the milkseller's house, round which it radiated. Under these circumstances, I took out a summons at the Westminster Police-court, on June 13, with a view of ascertaining the opinion of the magistrate upon the 38th section of the Sanitary Act. Mr. Woolrych said it was lamentable to hear what had taken place, but the section of the Act applied only to what took place out-of-doors, and not in a shop, where people went to make purchases of their own accord. It was a great pity that the Act did not go a little further, so as to meet such cases, for it was hard for persons to go to a shop, and, being unaware of a dangerous disease being in the place, to carry the infectious complaint home to their households. In consequence of this decision appearing in the

newspapers, I received a letter from Mr. E. Turner, M.P., inquiring into the facts of the case, which I forwarded to Mr. Bruce, who, in reply to a question in the House of Commons from Mr. Turner, said that he thought the Act might be very usefully amended and enlarged, so as to include shops. No alteration, however, has been made in the Act, and tradesmen are at liberty to sell milk or any other article, while suffering from small-pox, with impunity."

Mr. NETTEN RADCLIFFE read a paper, entitled "The Prospects of Cholera," and based upon the information which has been obtained concerning the prevalence and progress of the disease since the autumn of 1869. At that period cholera reappeared in the city of Kieff, after having been entirely absent for more than twelve months. It spread to the surrounding places, and in the course of a year it invaded nearly every part of Russia in Europe, extending along lines of railway and other channels of human intercourse. It was conveyed from St. Petersburg, by passengers, to railway stations in the provinces, insomuch that it was found necessary to make arrangements at some of the larger stations for the reception of any cases that might occur among the persons waiting or arriving there. From Russia the disease was carried both by land and sea, by railway passengers *viâ* Königsberg, and by steamers or other ships to various ports on the Baltic, whence again it was conveyed in at least two instances to Hartlepool, and in one to Nova Scotia. It was taken also from Odessa to Constantinople, where it occasioned a great mortality. Coincidently with the presence of the disease in Russia, it prevailed also in the Pashalik of Bagdad, and followed the lines of caravans through Central Arabia, by way of Medina and Mecca, until it reached Gonfudah and other ports on the Red Sea. He then came to the question, What is the prospect of this country suffering from or escaping an epidemic during the present year? This question may be regarded from two distinct points of view—first, with reference to the phenomena of the recent diffusion of cholera on the Continent and in Arabia; secondly, with reference to the conditions existing among ourselves. As far as regards the first branch of the subject, he remarked that the circumstances of the recent diffusion approximate very closely to those of 1852-55. Then, as now, the early cases appeared at first to have been due to recrudescence of a preceding and unexhausted epidemic; but it is probable that in both the phenomena of recrudescence masked the more important presence of fresh migrations of cholera into Europe from India by way of Persia. The outbreak of 1852-55, not only in Europe but in other parts of the world, was one of the most extensive on record; and, assuming a parallelism between the initial phenomena of development and progress of that outbreak and those of the outbreak of 1869-71, it may be inferred that the future course of the latter will be somewhat similar, as regards magnitude, to the course of the former. The probability that the diffusion of 1869-71 was essentially a true migrating epidemic of cholera is increased by the consideration that, during its progress in Europe last year, cholera became largely diffused in the Pashalik of Bagdad, and spread thence into Eastern and Northern Arabia, and to the eastern shore of the Red Sea. Further, there has been only one instance in Europe, that of 1859, of the occurrence of what has been aptly termed by Indian Physicians a "regional diffusion" of the malady. In that year cholera, apparently first showing itself in an active form in Hamburg, and prevailing there with considerable severity, broke out at various points of Western Europe, from Helsingfors to Southern Spain, and extended also into Morocco. Numerous cases were imported from the Continent to this country; but with the exception of the three slight outbreaks at Wick, Glass Houghton, and on the Itchen at Southampton the disease did not extend. Assuming that the recent diffusion may be of a similar character to that of 1859, it would be impossible to forecast its future; but the extent and universality of its prevalence in Russia, as well as the other considerations which have been mentioned, appear almost to shut out the hope that it may prove to be regional only, and support the view that it is part of a general, and as yet uncompleted, diffusion. On the whole, therefore, a comparison of the events of 1869-71 with those of previous outbreaks in Europe renders it probable that there will be a further extension of the disease in the course of the present year. The diffusion of cholera in Arabia, and its presence on the east coast of the Black Sea, should give rise to serious disquietude; for in this direction Egypt is threatened with the disease, and through Egypt the basin of the Mediterranean and the whole of Southern Europe. Great danger was apprehended from the assemblage of pilgrims at Mecca in March, but it is now reported—I trust accurately, although no official confirmation of the report has been received—that this year's pilgrimage has passed without an outbreak, notwithstanding the asserted presence of the disease in Mecca earlier in the year. Concerning the state of this country I would observe that all previous diffusions of cholera have been heralded by lesser outbreaks in the years preceding them. Last year there was no outbreak of cholera in England, but whether we may hope to escape in like manner during the year to come is a matter on which I will not venture a prediction. With regard to the conditions favourable to the development and propagation of the disease, I think it may be said that its too probable invasion of England may be contemplated without any excessive anxiety if only local authorities (and upon the "if" must turn the whole gist of my remarks) can be induced to take precautionary measures in anticipation of the evil. Speaking generally, the greater or less improvements which were carried out, either in the water-supply or in the abatement of nuisances, in the principal cholera-fields of previous epidemics, between 1854 and 1866, have been continued since the last-named period; and the conditions which chiefly favour the development and propagation of cholera never existed among us to so small an extent as at the present time. At no previous time has the water delivered by the companies been comparatively so pure, neither have the arrangements for the removal of nuisances from the metropolis or for dealing with infectious diseases been more completely organised. The amended sanitary law of 1866 gave to local authorities largely increased powers with regard to the abatement of nuisances and to the provision of Hospital accommodation for cases of infectious disease, so that such authorities are now placed, with reference to cholera, in a position which they have never before held. The law now empowers them to take all essential precautions for the protection of the populations under their control, and throws the entire responsibility of taking these precautions upon them. Nay, more—the Sanitary Act gave further powers for meeting an epidemic of cholera, as soon as certain sections were put in force by an Order in Council, which order was duly issued on July 29, 1871. Whether, therefore, we regard the general sanitary state of the kingdom, or the state of the law in respect to infectious diseases, the threatened invasion of cholera may be contemplated with less dread than in the case of any previous epidemic.

Inspector-General MURRAY had been led by his observations in India to believe that the epidemic of last year was only one of the stages of the ordinary progress of the disease from India to Europe, and he cited some curious examples of the way in which the rate of progress of cholera was accelerated by a railway—now, in fact, it travelled at the same pace as the travelling public.

Dr. DE RENZY, Sanitary Commissioner of the Punjaub, said: I entirely agree with Mr. Radcliffe that there are no solid reasons for regarding the late epidemic in Russia as a recrudescence of the epidemic of 1865. On that hypothesis the epidemic would have appeared simultaneously, or nearly simultaneously, over large tracts of country where the cholera was lying dormant from the previous outbreak. But this was not the case. On the contrary, the disease spread gradually from Kieff as a centre, following, as has ever been its custom, the main arteries of commerce, and especially affecting those regions traversed by railways. The facts which Mr. Radcliffe adduces to connect the epidemic in Kieff with that in Persia are of great interest. They go far to show that cholera is not bound to any particular atmospheric highway, as some people imagine, but that it is always ready to avail itself of any new facilities for diffusion that modern civilisation may open to it. The doctrine of recrudescence is, I believe, of Indian origin. It originated at a time when we had very little exact information about cholera, before any attempt had been made to tabulate the deaths caused by the disease among the native population. But now, as our knowledge of the facts becomes more precise, much of the mystery that formerly enveloped the disease and added to its terrors has disappeared. Already it is seen that the disease never appears with explosive suddenness, as was once supposed. It spreads gradually, like other epidemic communicable diseases. The opinion that the cholera virus is disseminated in great atmospheric waves is confronted by unanswerable objections furnished by our experience in India. The atmospheric currents must be the same now as they were a hundred years ago. And yet there can be no doubt of the fact that cholera epidemics are becoming much more frequent in the upper provinces. Two illustrations of this fact will suffice. In the first forty-four years of this century Umritsur, the great com-

mercial centre of the Punjaub, suffered from three epidemics. Since the annexation of the province—less than thirty years—it has suffered from six epidemics. Again, Peshawur remained entirely free from the disease in the long interval from 1805 to 1857. Since 1858 the valley has been visited by four terrible epidemics. In the last two—those of 1867 and 1869—the losses of the British troops were awful. In 1869 H.M.'s 36th Regiment lost no less than 15 per cent. of its strength in thirty days. The atmospheric currents being the same as they were formerly, we must look elsewhere for an explanation of the great increase in the frequency of epidemics. It cannot be said that the sanitary condition of the province is worse than it was, for the native cities, though they are lamentably deficient in sanitary arrangements, are incomparably cleaner than they were, and the people better off in every way. Of all the changes wrought in India by British rule, there is none so remarkable as the improvement in the facilities for intercourse between the different provinces and the extent to which the people avail themselves of those facilities. Calcutta and Lahore, only twenty years ago separated by a five months' journey, are now within as many days; and tens of thousands of people who never thought of leaving their villages, now travel largely on business or pleasure or devotion. This is the true explanation of the greater frequency of cholera in Upper India. The facilities for the importation of the cholera virus from its endemic home in Bengal are enormous, compared with what they were. Natives have frequently complained to me that British rule was bringing cholera among them so often—a circumstance which they attributed to the displeasure of the Deity at the sacrilegious custom of cow-killing. When I explained to them the influence of railways in spreading infection, and asked them whether they would unmake the railways for the purpose of being free from cholera, they admitted that they could not get on without railways: they had become necessary to their existence; and they expressed the hope that Government would be able to remove so unlooked-for a result of the opening of their great highways. There is one expression in Mr. Radcliffe's paper to which I strongly object. He speaks of "cholera travelling," implying that the disease is capable of automatic motion. Now, I maintain that there is no reason for supposing that the disease is endowed with any such power. On the contrary, every year's observation confirms the opinion that it is incapable of motion, and that when cholera travels it is invariably carried by man—his clothes, his goods, or merchandise. I must also take exception to one statement made by my old chief, Inspector-General Murray, who has said that cholera often appears in gaols and cantonments whose sanitary condition is perfect. If we admit the truth of this statement, how can we do battle with the disease with any earnest of victory? We must abandon the soul-inspiring hope of delivering the people of India from the misery and degradation which this cruel pestilence inflicts. But I hope to convince you that Dr. Murray is mistaken. In most respects Indian gaols and cantonments are in a much better sanitary state than any English towns. The soil is dry—I speak of the upper provinces—the ground-surface clean, the house accommodation good and not overcrowded, the inhabitants well-fed and well-clothed. There are no towns in England that will bear comparison in these particulars with our great military cantonments of Peshawur, Mecan Meer, or Umballa; and if the conditions I have mentioned comprised all that is necessary for the protection of communities against epidemics, Dr. Murray's statement would be undeniable. But there is one all-important point in which Indian gaols and cantonments are sadly defective. There are very few indeed in which the water-supply is not exposed to the grossest pollution. Peshawur derives its water-supply from open gutters, flowing by roadsides, fifty-two miles long, and open to every sort of pollution. If the people of Belgravia were dependent for their water-supply upon an open gutter flowing along the edge of the flagway, you, gentlemen, would not take a very sanguine view of their chances of escaping cholera or other epidemics diffusible through water that might visit the metropolis. And yet this is the actual condition of Peshawur. Is it strange that the place has been a pest-house; that it is hardly ever free from some destructive epidemic? At Mecan Meer the supply was taken from wells, but within 100 feet or so of the wells deep trenches were cut, thirty feet deep, almost down to the water-level—and these trenches were the latrines of the troops. In 1861 the troops lost just one-fourth of their strength from cholera; and after that warning the trenches were cleared out and filled up, and privies on the dry-earth system constructed. The system of water-supply, however, continued very defective. The water was raised by Persian wheels, and stored in a reservoir placed on a mound six feet above the level of the ground, near the well-mouth. This reservoir, which is only about eight feet square by four feet deep, is covered with planks laid loosely over it. The natives use the wells as places of *rendezvous* for chat in the cool of the evening, and the dust from their feet and shoes falls into the tank. I do not know of one great military station the water-supply of which is not grossly defective; some are worse than others, but all, without exception, are in a most dangerous condition. With these facts before you, gentlemen, I think you will agree with me that, so far as Indian experience goes, there is no reason to despair of our ability to control the ravages of cholera in that country as you have controlled them here. I cannot conclude without saying that when I urged upon the late Earl of Mayo the supreme importance of undertaking at once the reform of the water-supply of Indian cantonments, his Lordship expressed his belief that that reform would do more than all other contemplated reforms together to relieve our soldiers from the scourge of cholera and the other epidemics that debase and impoverish India.

Dr. Buchanan recalled to the meeting the time, not so far distant, when the propagation of cholera was supposed to be due to all manner of cosmic, atmospheric, or other vaguely described and incomprehensible influences, and congratulated his hearers on having now reached a solid basis of fact and knowledge, upon which further observations might be built with security.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 9.

T. B. Curling, F.R.S., President, in the Chair.

(*Continued from page* 474.)

On taking the chair, the President announced that the Council had duly considered the proposal to place a bust of her Majesty in the rooms, and had come to the conclusion that it was not advisable to carry out the scheme.

Mr. J. Astley Bloxam also brought forward a case of Aneurism of the Abdominal Aorta at its bifurcation, and involving the left common iliac, treated by pressure of the abdominal aorta, and which was followed by embolism and death. The case was under the care of Sir James Paget, Bart., at St. Bartholomew's Hospital in the year 1870. The patient, aged 29, was admitted on February 23. He had suffered with pain in the back and loins for eighteen months, and occasionally he had numbness in the lower extremities after running. When admitted, the tumour presented the following appearance:—It was irregularly oval, with its long diameter directed towards the left common iliac, equally firm all over, and pulsating very forcibly in all directions. Pressure was applied, with the aid of chloroform, two inches above the umbilicus, no less than four times within a period of twenty-four days, on the following dates:—March 4, for two hours and twenty minutes; 8th, for one hour and thirty minutes; 14th, for four hours; 21st, for six hours. In each period it was especially remarked by Sir James Paget and all present how immediately the circulation was affected by the pressure. At the last operation the pulse became almost indistinguishable at the wrist, and remained so for hours, and on all occasions the arterial circulation seemed to have contracted to its greatest extent, and at the same time became exceedingly rapid, and at times intermittent. After the 21st, the last date on which the pressure was applied, he had frequent attacks of vomiting, and retched up a little blood, and appeared in a moribund condition up to the 25th, when he rallied a little. At this period he complained much of pain over the seat of pressure, became rapidly emaciated, and died on March 29, eight days after the last application of the pressure. At the post-mortem, local peritonitis had taken place about the pancreas and spleen, and an abscess had formed in the gastro-splenic omentum. The superior mesenteric artery was found for more than an inch flattened out, of a dark purple colour, its coats infiltrated, and on opening it, on the internal coat were clots of blood, firmly adherent; but a channel existed through the artery. The arteries to the spleen and pancreas were branches of it, and it appeared to Mr. Bloxam that the breaking-up of their structure into abscesses might be the result of emboli, as several were detected along the main trunk of the superior mesenteric. The aneurism itself had eroded the bodies of the lumbar vertebræ, and was full of laminated clots. Mr. Bloxam

simply drew attention to the peculiar condition of the circulation when pressure was applied over or near the semilunar ganglia.

Mr. Wood wanted a more detailed account of the condition of the duodenum where it crosses the aorta, as there it was most likely to meet the pressure. He thought they must not attribute the whole of the clot to the pressure, for some of it seemed to have been exposed to the wash of the blood after its removal in the specimen shown. He also thought the formation of the clot might in part be due to the inflammation of surrounding tissues, which in one case was shown to be present. He considered the second case alluded to by Mr. Durham more likely to be, from its mobility, an aneurism of one of the branches of the aorta rather than of that vessel itself. The cases justified his previous opinion of Lister's instrument—that its use was not without risk from various causes. He thought distal pressure should only be had recourse to when proximal was impossible; but then it ought to be tried. Pressure had failed, in his hands, in curing aneurism.

Mr. T. Smith thought that credit ought more distinctly to be given to Dr. Murray, to whom was due the introduction of the practice, and who certainly was the first to cure an abdominal aortic aneurism so. He found this plan to be both practicable and safe. These cases clearly showed that sudden stoppage of the blood was possible, and even beneficial in such trunks as the aorta. In the case alluded to, arteries after a time freely sprang up in places even where it is generally supposed that there are no vessels. The papers of that night showed when and how to apply pressure. He could see that in Sir James Paget's case the treatment was too severe and too continuous. The pulse, too, altered as in Mr. Bryant's case, probably from pressure on the solar plexus.

Dr. Barclay said he had recently seen two cases of abdominal aneurism in St. George's Hospital. One was no case for interfering with, as it was extending into the chest. The pain from erosion was very great, and the patient died by rupture into the pleura. In the other the aneurism was freely movable in the abdomen; it was probably, therefore, an aneurism of a branch of the aorta. The patient had albuminuria when he came in, but it disappeared. He tried Murray's plan. They could arrest pulsation by digital pressure, but the patient could not bear chloroform, so that had to be given up. Two days after they tried ether, but they could only keep it up for two hours, and the aneurism was unchanged. They also tried pressure without chloroform, but could obtain no useful result.

Mr. Haward considered the collapse in this case to be due rather to the pressure of the tourniquet than the ether. If the pressure was relieved, the faintness got better, but it returned when the pressure was renewed.

Mr. Barwell thought he felt the femoral pulsating in Mr. Durham's patient (who was present). Ten hours under chloroform was an exceptional period for a man to bear. He thought the pressure might be made intermittent.

Mr. Croft thought the pad might be made, by a little ingenuity, so as to do no harm to the bowels.

Mr. Durham, in reply, said he considered much was due to letting the man alone for a time after the first attempt. Repetitions were dangerous without a long rest. He also used slow pressure at first, and moulded away as well as he could the parts from beneath the pad. He also applied the pressure as high as possible.

Mr. Bryant considered that his case proved fully that as perfect consolidation could be procured by distal pressure as by proximal. He thought there was no evidence of "wash" in his specimen.

After a few words from Mr. Bloxam, the meeting adjourned.

After the meeting,

Dr. Dobell exhibited two instruments, having for their object to reduce the intra-vesicular pressure in the chest, and that resulting from it on the surface of the diaphragm, and to effect a more complete change in the reserve air of the lungs, and thus indirectly of the residual air, in cases of emphysema, chronic bronchitis, carbonic acid poisoning, and the like. The first instrument was invented by Dr. Berkart, and consists of a set of inspiratory and expiratory valves communicating between an orinasal mask and an air-pump. Dr. Dobell's instrument is of simpler construction than an ordinary respirator, and, though not so large, somewhat resembles it in shape. It is made by Maw, and is called a "Residual Air-pump." That of Dr. Berkart is manufactured by Hawksley, and is called an "Expirator."

OBITUARY.

THOMAS BICKERTON, F.R.C.S., L.S.A.

The Medical Profession of Liverpool have sustained a very serious loss in the death of Mr. Thomas Bickerton, and the numbers who attended his funeral prove that the loss is one not felt by the Profession only. Mr. Bickerton was born in Warrington, and after having served an apprenticeship to Mr. Ellis Jones, of Liverpool, then one of the Honorary Surgeons to the Northern Hospital, spent a session at the Liverpool Royal Infirmary School of Medicine. He then went to Glasgow, where he completed his curriculum, working throughout with great steadiness and zeal. As a proof of the diligence with which he prosecuted anatomy, it is only necessary to mention that in the latter period of his course he filled the post of prosector, one which is always assigned to those students who are possessed of the best practical knowledge of the subject. After obtaining his diplomas he undertook a voyage or two to Australia, and at the conclusion of these settled down in practice in Liverpool. With a great aptitude and skill in general Surgery he had always displayed a marked predilection for ophthalmic practice, and, on the resignation of Dr. Neil some fourteen years ago, was appointed Assistant-Surgeon to the Liverpool Eye and Ear Infirmary. Two years later, when Mr. Poole resigned, he became full Surgeon, and up to a few weeks of his lamented death continued to discharge the duties of his important post with a zeal, energy, and success which are very rarely equalled. The brilliance and success of his operations on the eye early brought him into repute, and secured for him a large and lucrative ophthalmic practice, while the invariable amiability of his disposition insured his being thoroughly liked both by his patients and Professional brethren. As well as being Surgeon to the Eye and Ear Infirmary, and in possession of a large general Surgical practice, he was Consulting-Surgeon to the North Western Railway Company's Northern Division—a post which, until the last year or two, when rearrangements were made by the Company as to its Medical service, gave him abundant employment; and, as if all this could not satisfy his love of work, he was Major of the 1st Lancashire Artillery Volunteers.

The occasion of his early death—for he was only 45—was peculiar. Some three years ago he was thrown from his carriage, and sustained a severe, but, as it seemed to be, superficial injury to one knee; and after a short confinement to the house, resumed his work with unabated vigour. Beyond a little stiffness, and an occasional slight pain, no inconvenience whatever was experienced from this accident until about four weeks ago. On the Monday he was at the Eye Infirmary, did his work just as usual, and in the course of the day actually walked several miles. On the Tuesday morning he appeared to be in his usual health, which was that of a robust, powerful man. On the afternoon of that day, however, he began to suffer from pain and swelling in the knee, and as these increased towards the evening he requested the advice of Mr. Hakes, Surgeon to the Royal Infirmary. There was doubt at first as to the character and extent of the mischief. Constitutional disturbance, however, was very great, and by Saturday the symptoms had become so alarming that Mr. Bickersteth saw him in consultation with Mr. Hakes; and on the following day (Sunday) a free incision was made into the joint, evacuating a very large quantity of fetid pus. It now became apparent that the patella was extensively necrosed, and that there was other mischief besides that in the joint. In the upper and outer third of the thigh a large abscess had formed, which required a separate opening for its evacuation, and two subsequent incisions were rendered necessary into or near the joint by the disorganised condition of the tissues and consequent sloughing and suppuration. It is not wonderful, under these circumstances, that when he was able to bear amputation—which for a week or two could not be thought of, in consequence of his extreme prostration—secondary hæmorrhage occurred. On the second day after the limb was removed by Mr. Hakes, hæmorrhage occurred from the femoral, not at the original point of ligature, but so as to require another site to be tied. Two further slight hæmorrhages from smaller vessels at two subsequent periods so exhausted his strength that he died at half-past two on Saturday morning, the 13th inst.

Mr. Bickerton was a Fellow of the College of Surgeons of Edinburgh, and L.S.A. of London. He was twice married, and leaves a widow and six children (four of whom are by his former wife) to deplore their loss.

JOHN CROUCH, F.R.C.S., etc.

Mr. Crouch died on the 13th inst. at Chippenham, at the age of 62 years. He was first a pupil at the Winchester County Hospital, then was further educated at Guy's and St. Thomas's. He was in general practice for several years at Castle-Carey, Somerset, and subsequently at Mitcham, in Surrey. Whilst in full practice incipient symptoms of paraplegia developed themselves, and gradually incapacitated him, and he was struck down in the very prime of life and in the zenith of a useful career. He was formerly House-Surgeon to the Winchester Hospital. Contributions: "A Successful Case of Ovariotomy by a large Abdominal Section," *London Medical Gazette*, 1849; "On Ovariotomy, with a Table of all the Cases recorded in England previous to 1849," *Provincial Medical and Surgical Journal*; "A Successful Case of Parturition in a Patient who had previously undergone Ovariotomy by a large Incision," *Medical Times* and *Lancet*, 1851, and *Medical Chirurgical Transactions*, 1852; and other cases of ovariotomy in *Lancet*, 1854-59, and *Association Journal*, 1854.

ROBERT VENABLES, M.A., M.B. Oxon., etc.

This venerable Physician died on the 15th inst. at his house on Blackheath-hill, at the advanced age of 88. He was in practice for many years in London, and at one time prepared candidates for passing examinations of the Medical Colleges. He for a long time past has been gradually retiring from active practice. He was educated in Dublin, and was a man of good abilities and varied acquirements. He was Physician to the Royal Kent Dispensary, Greenwich-road; Member of the West Kent Medico-Chirurgical Society; H.P. Royal Artillery. Author of—1. "On Dropsies;" 2. "Diabetes;" 3. "On Cystic Oxide Calculus, and the Properties of the Urine in this Diathesis;" 4. "On Siliceous Gravel and on Carbonate of Lime," *Journal of the Royal Institution*; 5. "Elements of Urinary Analysis;" 6. "On Cholera;" 7. "Organic Diseases of Liver," *Cyclopædia of Practical Medicine*.

GARRETT DILLON, M.D., M.R.C.S., etc.,

Who had been for many years retired from practice, died on the 17th inst., at Bryanston-street, in the 80th year of his age. In the early stages of the Medical reform question Dr. Dillon took a prominent part. He was a man of ability and great energy, and addressed an audience with fluency and effect. Being independent of his Profession, he was careless as to the obtainment of practice, and, consequently, was never much occupied in it. He was a genial, warm-hearted man, an excellent companion, and a staunch friend.

MEDICAL NEWS.

University of Durham College of Medicine, Newcastle-on-Tyne.—The following gentlemen passed the primary examination for the Licence in Medicine at the examination held on April 15 to 18:—

Calcott, James T. | Kowell, Geo., M.R.C.S. | Wilson, Chas. W.

Two candidates failed to satisfy the examiners.

University of Aberdeen.—At the late Medical Graduation Term the following candidates, after the usual examinations, received Degrees in Medicine and Surgery:—

The Degree of M.D.

Clark, Thomas Edward, M.R.C.S., L.S.A., Clifton.
Pearson, Thomas Robert, M.R.C.S. Eng., L.R.C.P. Ed., Shotley Bridge, Durham.

At the same time the following gentlemen received promotion to the Degree of M.D.:—

Anderson, Alexander Thomas, M.B., C.M., Wigan.
Blackloek, Arthur Woolsey, M.B., C.M., Brighton.
Blake, Edward Thomas, M.B., Reigate.
Catto, Robert, M.B., C.M., Portsoy.
Gillies, John, M.B., Milksham, Wilts.
Hutchison, George Wright, M.B., C.M., Belford Hospital, Fort William.
Lawrence, Alexander, M.B., C.M., County Asylum, Chester.
M'Rae, Alexander Edward, M.B., C.M., Fettercairn.
Morison, George, M.B., C.M., Huntly.
Munro, Alexander Begg, M.B., C.M., St. Helen's, Melrose.
Newth, Alfred Henry, M.B., Hayward's-heath, Sussex.
Rosser, Walter, M.B., Trinity College, Glenalmond.
Thomson, George, M.B., C.M., Oldham, Lancashire.
Thomson, John William, M.B., C.M., Brechin.
Timmins, John A. J., M.B., C.M., Wellington.
Waterworth, Edward Allan, M.B., Newport, Isle of Wight.
Williams, Albert, M.B., C.M., Sydenham, Surrey.
Willock, Richmond Cotts, M.B., C.M., Aberdeen.

The Degree of M.B.

Campbell, William, Kinellar.
Carless, William, Stroud, Glos.
Cushny, William Alexander, M.A., Fochabers.
Elliott, Frederick William, M.R.C.S. Lond., London.
Farquharson, Patrick Davidson, New Deer.
Footner, Edward, M.R.C.S. Lond., 91st Highlanders.
Forsyth, Alexander, Aberdeen.
Garden, Robert John, Aberdeen.
Gibb, Robt. Shirra, Cults, Aberdeen.
Gibbes, Cuthbert Chapman, Plymouth.
Gosse, Charles, M.R.C.S. Lond., South Australia.
Inglis, James, Aberdeen.
Knowles, W. Bisset, Aberdeenshire.
Law, James, Aberdeen.
Lawrence, Alfred E. Anst, Bristol.
Low, David, Skene.
Lyon, John, Petercultcr.
Macdonald, John Davidson, M.A., Clatt, Aberdeenshire.
MacKenzie, Duncan J., Ross-shire.
Mitchell, Andrew, New Deer, Aberdeenshire.
Parkinson, John Taylor, M.R.C.S. Ed., Yorkshire.
Pringle, John, Torwoodlee.
Reid, James, M.A., Ellon.
Reid, James Alexander, Kildrummy, Aberdeenshire.
Rennie, Thomas, Inverurie.
Robertson, George James, Daviot.
Smith, Geo. Washington, Methlick.
Stephen, James, M.A., St. Cyrus, Kincardineshire.
Tytler, Peter, Midmar.
Wright, Francis James, L.S.A., Preston, Lancashire.
Wyness, Jas. Davidson, Aberdeen.
Welford, Geo. Edward, Sunderland.

The Degree of C.M.

Campbell, William.
Carless, William.
Clark, Thomas Ed.
Cushny, William Alex.
Farquharson, Patrick D.
Forsyth, Alexander.
Garden, Robert John.
Gibb, Robert Shirra.
Gibbes, Cuthbert C.
Gosse, Charles.
Inglis, James.
Knowles, William B.
Law, James.
Lawrence, Alfred Ed. A.
Low, David.
Lyon, John.
Macdonald, John D.
Mackenzie, Duncan J.
Mitchell, Andrew.
Parkinson, John Taylor.
Pearson, Thomas R.
Pringle, John.
Reid, James.
Reid, James Alexander.
Rennie, Thomas.
Robertson, George James.
Smith, George Washington.
Stephen, James.
Tytler, Peter.
Welford, George Edward.
Wright, Francis James.
Wyness, James Davidson.

Of the above-mentioned candidates, Alexander Forsyth, Robert John Garden, David Low, James Reid, Thomas Rennie, and Peter Tytler received their degrees in Medicine and Surgery, with highest academical honours; George James Robertson, his degree in Medicine, with academical honours.

At the same time Alexander Burrell, George William Fowler, Walter Gawen King, Francis Ogston, David Aikman Patterson, and Robert William Reid were certified as having passed all the examinations, and are entitled to receive degrees on their attaining the necessary age; and the following were declared to have passed part of their examinations:—

Aldridge, Charles.
Allardyce, James.
Anderson, Alexander.
Arthur, John Findlay.
Burness, Alex. Geo.
Busfield, Harcourt M'Leod.
Cantlie, James.
Davy, John.
Donald, William.
Ewart, Alex. Barclay.
Hall, John George.
Hallett, Henry Arthur.
Hanson, Hargreaves H. H.
Hoole, Pemberton Abel.
Keith, Alex. C.
Lawrance, Patrick Jas.
Lechler, Henry Martin.
Lumsden, Jas. P.
Mearns, William.
Milne, Robert.
Moir, Forbes F. M.
Napier, Alex. D. Leith.
Napier, Thos. Wm. Adam.
Newcombe, Chas. Fred.
Oakes, Charles.
Reid, George.
Rigby-Hughes, John.
Rowan, Robert K. O'Neill.
Skene, Thomas Alex.
Swaine, Charles L.
Thomson, John.
Wadd, Thos. Herbert.
Wardrop, Douglas.

The next Professional examination for degrees in Medicine commences on Saturday, July 27.

King and Queen's College of Physicians in Ireland.—At the monthly examinations held on April 8, 10, and 11 last, the Licence to Practise Medicine was granted to the following successful candidates:—

Cormack, John Claude.
Fleming, Christopher.
Lawler, John.
M'Carthy, Charles William.
Skerrett, Philip Huscared.
Sparrow, Richard Henry.
Thomson, John Anstruther M.
Woodward, Walter Benjamin.

At the examinations for the Midwifery Diploma the following passed:—

Cormack, J. Claude.
Fleming, Christopher.
M'Carthy, Charles W.
Sparrow, Richard H.
Thomson, John A. M.
Woodward, Walter B.

Royal College of Surgeons of England.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Court of Examiners on the 23rd inst., and when eligible will be admitted to the pass examination:—

Arnold, Andrew, student of the Newcastle School.
Baker, Benjamin R., of St. Thomas's Hospital.
Bark, Ernest O., of the Bristol School.
Beaumont, William M., of the Middlesex Hospital.
Bradley, Robert, of the Liverpool School.
Brennand, Frederick J., of King's College.
Bullen, Beresford R., of St. Thomas's Hospital.

Cassan, Theodore, of King's College.
Crawshaw, Benjamin, of the London Hospital.
Davey, Charles J., of Guy's Hospital.
Dring, William E., of Guy's Hospital.
Fothergill, John A., of the Middlesex Hospital.
Fryer, John, of the Leeds School.
James, William M., of the Edinburgh School.
Knowles, Edmund, of St. Mary's Hospital.
Maggs, Henry M., of Charing-cross Hospital.
McCammon, James, of Guy's Hospital.
Mitchell, C. J. C., of Guy's Hospital.
Thomas, G. H. W., of Guy's Hospital.
Thomas, Herbert H., of University College.
Waller, William B., of St. Thomas's Hospital.
Williams, Austin E., of the Liverpool School.
Wreford, Samuel, of the London Hospital.

The following gentlemen passed on the 24th inst., viz.:—

Bernays, Sydney A., student of St. Thomas's Hospital.
Black, James, of St. Thomas's Hospital.
Birch, Philip, of King's College.
Carline, William A., of King's College.
Cash, Alfred M., of the Edinburgh School.
Dixon, John, of the Edinburgh School.
Dyer, Henry G., of King's College.
Gawith, James J., of St. Mary's Hospital.
Hutchinson, Samuel J., of University College.
Jackson, Henry, of the Middlesex Hospital.
Jones, Charles M., of St. Thomas's Hospital.
Lingard, Alfred, of St. Thomas's Hospital.
Moir, Gerald C. A., of St. Mary's Hospital.
Peck, Awdry, of University College.
Pocock, Walter, of St. Thomas's Hospital.
Postance, James R., of the Liverpool School.
Rogers, Thomas K., of University College.
Smith, Charles E., of the Manchester School.
Smith, Sydney L., of St. Thomas's Hospital.
Startin, James, of St. Thomas's Hospital.
Williams, Frank M., of the Middlesex Hospital.
Williams, Herbert E., of St. Mary's Hospital.
Winkworth, Charles E., of Guy's Hospital.

The following gentlemen passed on the 25th inst., viz.:—

Bury, Abraham T., student of St. Thomas's Hospital.
Campbell, Colin G., of the Dublin School.
Clarke, Arthur, of University College.
Clarkson, John W., of St. Thomas's Hospital.
Hardwicke, William W., of St. Mary's Hospital.
Hart, George H., of the Birmingham School.
Hebb, R. Grainger, B.A. Cantab., of King's College.
Herring, John F., of the Edinburgh School.
Highton, Thomas, of St. Thomas's Hospital.
Jarrett, Michael L., of King's College.
Lechler, Henry M., of Aberdeen.
Maclean, Norman C., of St. Mary's Hospital.
Rockliffe, W. Craven, B.A. Cantab., of St. Thomas's Hospital.
Ross, William A., of the Westminster Hospital.
Smith, Herbert N., of Guy's Hospital.
Speirs, William, of the Glasgow School.
Symonds, Horatio P., of University College.
Travers, Otho R., of Guy's Hospital.
Tyson, William J., of Guy's Hospital.
Walker, David F., of Guy's Hospital.
Ward, Alexander, of King's College.
Whitworth, Edward, of Guy's Hospital.

Thirty-eight candidates out of the 106 examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their anatomical and physiological studies for three months.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, April 18:—

Dudley, William Henry, Stafford.
Harrison, Richard, Kensington-park, W.
Roberts, William, St. Bartholomew's Hospital.
Sheldon, William, Wednesbury.
Thurland, Francis Edward, Thurstaston, Cheshire.
Triggs, John Bellhouse Bowden, Falmouth.
Withington, James Bissell, Woburn-place, W.C.

As Assistants in Compounding and Dispensing Medicines:—

Cole, Edward Henry, Leeds.
Cottam, William Procter, Launceston.
Dixon, John Seth, Tunstall, Staffordshire.
Harrington, Arthur Lewis, Rochford, Essex.
Haworth, Benjamin Henry, Market Rasen.
Vince, James, Launceston.
Williams, William Griffith, Abergele.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Hewett, Frederick Charles, St. Bartholomew's Hospital.
Stevens, Alfred Felix, St. Bartholomew's Hospital.

The Summer Registration at the Hall commences on May 1, and terminates on May 15.

THE County Coronership of Carnarvon has become vacant by the resignation of Mr. E. G. Powell, who has held the office for forty years.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLEN, P. J., L.K.Q.C.P., L.M., M.R.C.S. Eng.—Medical Officer to the Johnstown Dispensary District, Edenderry, King's County.

BERNARD, GERALD, M.D.—Assistant to the Extra-Physicians, Royal Hospital for Sick Children, Edinburgh.

BIGGS, M. G.—House-Surgeon to the Salisbury Infirmary, *vice* F. C. Bennett, M.R.C.S., L.S.A., resigned.

BURGESS, W. F. R., M.B., M.R.C.S. Eng., L.S.A.—Resident Medical Student to Bethlem Royal Hospital.

DE LISLE, FREDERICK IRVING, L.R.C.P. Edin., M.R.C.S. Eng.—Medical Officer to the parishes of St. Martin and St. Pierre du Bois, Guernsey.

SCOARSAT-JACKSON, T., M.B., C.M. Edin., M.R.C.S. Eng.—House-Surgeon to the West Sussex and Chichester Infirmary and Dispensary.

THOMPSON, HENRY, M.R.C.S., L.S.A.—House-Physician to St. Bartholomew's Hospital.

WOODD, C. G., M.R.C.S. Eng., L.S.A.—Medical Officer to the Watermen's and Lightermen's Asylum, Penge.

WRIGHT, F. J., M.R.C.S., L.S.A.—Resident Medical Student to Bethlem Royal Hospital.

MILITARY APPOINTMENTS.

MEDICAL DEPARTMENT.—Staff Assistant-Surgeon Joseph Richard Kehoe, to be Staff Surgeon, *vice* Staff Surgeon-Major Richard Domenichetti, M.D., who retires on half-pay; Assistant-Surgeon Espine Ward, from 89th Foot, to be Staff Assistant-Surgeon, *vice* Frank Edward Barrow, appointed to the 89th Foot; Surgeon-Major George Baillie, M.D., Madras Army, to be Deputy Inspector-General of Hospitals.

BREVET.—Staff Surgeon-Major Richard Domenichetti, M.D., who retires upon half-pay, to have the honorary rank of Deputy Inspector-General of Hospitals.

BIRTHS.

MIDDLETON.—On April 14, at Enniskillen, the wife of John Middleton, M.D., 34th Regiment, of a son.

PEARSON.—On April 16, at 7t, King-street, Aberdeen, the wife of T. R. Pearson, M.D., C.M., late of Stowmarket, Suffolk, of a son.

ROWLANDS.—On April 10, at Carmarthen, the wife of J. D. Rowlands, M.R.C.S., L.S.A., of a daughter.

TINDALE.—On April 17, at The Hollies, Hampton-on-Thames, Middlesex, the wife of Wentworth R. Tindale, M.B., of a daughter.

STONE.—On April 21, at 19, Oxford-terrace, Hyde-park, the wife of W. Domett Stone, M.D., F.R.C.S. (Exam.), of a son.

WATSON.—On April 16, at Tottenham, the wife of W. Tyndale Watson, M.D., of a daughter.

WINSLOW.—On April 16, at Sussex House, Hammersmith, the wife of Dr. Lyttelton Winslow, of a son.

MARRIAGES.

BAKER—CUFAUDE.—On April 17, at Acle, Norfolk, John Baker, Esq., of West Rudham, to Jessie, eldest daughter of W. H. Cufaude, M.R.C.S. Eng., L.S.A.

GARDNER—CORNER.—On April 16, at the parish church of Sampford Brett, the Rev. George Edward Gardner, M.A., only surviving son of the late E. B. Gardner, M.D., F.R.C.S., of Stroud, Gloucestershire, to Amy Bellamy, elder daughter of Richard Corner, Esq., of Torweston, Williton, Somerset.

GODDARD—DAVENPORT.—On April 18, at Witton-le-Wear, Durham, Samuel Goddard, M.R.C.S. Eng., L.S.A., of Burslem, North Staffordshire, to Maria, relict of the late Charles Davenport, Esq., of Odd Rode, Cheshire.

HEPWORTH—STEVENS.—On April 23, at the Church of St. Mary Boltons, West Brompton, Thomas Craddock Hepworth, Esq., of Beaufort-gardens, Lewisham, Kent, to Sarah Margaret, eldest daughter of the late William Stevens, M.R.C.S., of Milton House, West Brompton.

NICHOLSON—MOUCHET.—On April 11, at Writtle Church, Chelmsford, T. D. Nicholson, M.B., C.M., M.R.C.S.E., of Bristol, to Caroline Mouchet, of Neufchatel.

PATTISON—PHILLIPSON.—On April 16, at Holy Trinity Church, Weston-super-Mare, A. Dunn Pattison, Esq., of Dalmuir, Dumbartonshire, to Minnie Katherine, eldest daughter of Richard Phillipson, Esq., late of Bengal Medical Staff.

DEATHS.

BANKS, ANNA MARIA, widow of the late W. R. Banks, M.D., at her father's residence, Gunnersbury House, Spring-grove, Isleworth, on April 19, aged 38.

BROWN, SAMUEL WILLIAM, F.R.C.S.E., at Lewisham, S.E., on April 21, in the 66th year of his age.

BROWNE, ALEXANDER, retired Army Surgeon, and late of the 37th Foot, at Langlands, in the parish of Twynholm, Kirkcudbrightshire, M.B., on April 15.

CATTLE, WILLIAM DAUCE, M.R.C.S., L.S.A., of Newent, at the Court-house, Newent, while on a visit, on April 19, aged 40.

CHAPLIN, ELIZABETH CHARLOTTE MAUD, second daughter of Thomas Chaplin, M.D., at Jerusalem, on April 3, aged 19 months.

CONQUEST, WILLIAM SHRUBSOLE, second son of the late J. T. Conquest, M.D., F.L.S., at his residence, Belvedere, Kent.

CROUCH, JOHN, L.R.C.P. Edin., F.R.C.S. Eng., at Chippenham, Wilts, on April 18, aged 62.

CRUICKSHANK, JANE ELIZABETH CAMPBELL, youngest daughter of the late William Cruickshank, M.D., Depnty Inspector-General of Hospitals, at Park House, Portobello, on April 21.

DILLON, GARRETT, M.D., at 6, Bryanston-street, London, on April 17, in the 80th year of his age.

GORDON, JAMES ALEXANDER, M.D., F.R.S., at his residence, Pixholme, Dorking, on April 18, in the 79th year of his age.

GRAHAM, FITZGIBBON LOCKWOOD, M.D., at Landscape, Celbridge, county Kildare, on April 13, aged 39.

VENABLES, ROBERT, M.A., M.B. Oxon., Physician to the Royal Kent Dispensary, H.P. Royal Artillery, at his residence, Blackheath-hill, on April 15, aged 88.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess both a Medical and Surgical diploma. Applications and testimonials to be addressed to "The President of the District Infirmary," and forwarded to H. T. Darnton, Esq., Honorary Secretary, Ashton-under-Lyne, on or before May 11.

DUNDEE ROYAL INFIRMARY.—A qualified Medical man, to act as Joint House-Surgeon. Further particulars may be learned from the Secretary, D. Gordon Stewart, Esq., solicitor, 18, Meadow-side, Dundee, to whom applications, with testimonials, must be sent on or before May 1.

ECHT, ABERDEENSHIRE.—Medical Officer to the Parish of Echt.

GREAT NORTHERN HOSPITAL.—Ophthalmic Surgeon. Candidates must be F.R.C.S. Applications and testimonials to be sent to G. Reid, Secretary, 46, Great Coram-street, W.C., on or before May 16.

GUILDFORD UNION.—Medical Officer and Public Vaccinator. Candidates must be duly qualified. Applications and testimonials to be sent to Mark Smallpeice, Assistant-Clerk, Guildford Union, on or before May 9.

HACKNEY UNION.—Medical Officer. Candidates must possess the qualifications required by the Consolidated Orders of the Poor-law Board and Local Government Board. Applications and testimonials to be sent to John Godwin, Clerk to the Guardians, Clerk's Offices, Hackney Union, Homerton, E., on or before April 30.

HAMADRYAD HOSPITAL-SHIP FOR SEAMEN OF ALL NATIONS.—Port of Cardiff. Resident Assistant Medical Officer. Candidates must be unmarried, and must possess a Surgical qualification. Applications, enclosing testimonials, to be forwarded to David Roberts, Secretary, 17, Church-street, Cardiff, on or before Tuesday, April 30.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

KING'S COLLEGE.—Demonstrator of Practical Physiology.

MIDDLESEX COUNTY LUNATIC ASYLUM, HANWELL.—Medical Superintendent of the Male Department. Candidates must be Fellows, Members, or Licentiates of one of the Royal Colleges of England, Scotland, or Ireland, and duly registered in Medicine and Surgery. Copies (only) of testimonials, accompanied by a form (which will be forwarded on application), must be sent to Richard William Partridge, Clerk to the Visitors, on or before Saturday, May 4.

ROYAL ORTHOPÆDIC HOSPITAL, 315, OXFORD-STREET.—Two Surgeons and two Assistant-Surgeons. Candidates must be F.R.C.S. Applications, with testimonials, to be sent to Benjamin Maskell, Secretary, on or before May 1.

SALOP AND MONTGOMERY COUNTIES AND WENLOCK BOROUGH LUNATIC ASYLUM.—Assistant Medical Officer. Candidates must be duly qualified. Applications with testimonials to be sent to Mr. De Courcy Peele, Clerk to the Visitors, Shrewsbury, on or before April 30.

SKIBALAUGH UNION.—Medical Officer for the District of Aldborough. Candidates must be duly qualified. Applications, with testimonials, to be forwarded to Thos. A. McCoy, Clerk to the Guardians, Beverley, on or before Thursday, May 2.

TEWKESBURY UNION.—Medical Officer to the Forthampton District. Candidates must be duly qualified. Applications and testimonials to be sent to George Badham, Clerk to the Guardians, Tewkesbury Union, on or before April 30.

UNIVERSITY COLLEGE HOSPITAL.—Resident Medical Officer. Applications and testimonials to be sent to John Robson, B.A., Secretary to the Council, on or before May 18.

WALSINGHAM UNION.—Medical Officer. Must be duly qualified in accordance with the General Orders of the Local Government Board. Applications, with testimonials, to be forwarded to J. Wright, Clerk, Bridge-street, Fakenham, on or before Tuesday, April 30, and endorsed "Application for the Office of Medical Officer."

WANDSWORTH AND CLAPHAM UNION.—Medical Officer for the Eastern District of the Parish of Battersea. Applications and testimonials to be sent to John Sanders, Clerk to the Guardians, Union Offices, East-hill, Wandsworth, on or before Tuesday, April 30.

WEST BROMWICH DISTRICT HOSPITAL.—House-Surgeon. Candidates must be doubly qualified. Applications and testimonials to be sent to P. D. Bennett, Honorary Secretary, West Bromwich, on or before May 6.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Aysgarth Union.—Mr. J. A. Harrison has resigned the Hawes District; salary £30 per annum—also the Workhouse; salary £10 per annum.

Chertsey Union.—Dr. T. A. Chaldecott has resigned the First District; area 10,000; population 6588; salary £80 per annum—also the Workhouse; salary £50 per annum.

APPOINTMENTS.

Clifton Union.—Henry Grace, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., to the Sixth District.

Foleshill Union.—Edward W. Orton, M.R.C.S. Eng., L.R.C.P. Edin., to the Bedworth District.

Leeds Union.—Charles Jack, M.D. and C.M. Univ. Glasg., to the Headingley-cum-Burley District.

Penkridge Union.—John C. Blackford, M.R.C.S. Eng., L.S.A., to the Workhouse.

Portsea Island Union.—Thos. P. Simpson, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Workhouse.

Selby Union.—Alex. C. Oray, M.D. and C.M. Univ. Glasg., to the Workhouse and the Selby District.

Sudbury Union.—Francis Marshall, M.R.C.S. Eng., L.S.A., to the First District.

Toxteth Park Township.—Albert E. Carter, L.R.C.S. Ire., L.R.C.P. Edin., to the First District.

DR. WILLIAM CRADDOCK, of the Bengal Army, died on March 30, on board the *Scotland*, off Cape St. Vincent.

TYPHOID fever is prevalent at Mountain, Queensbury.

THE *Sindian* says that almost every family in Kurrachee is attacked with measles; and fever and other maladies, brought on by the sudden change of the season, prevail to a great extent.

THE HISTORICAL SOCIETY will meet in the Scottish Corporation-hall, Crane-court, Fleet-street, London, on the evening of Friday, the 26th inst., at half-past seven o'clock. The Council will meet at seven o'clock precisely. B. G. Jenkins, Esq., will read a paper, entitled "A Chapter in the History of Cholera, founded on a Communication to the Russian Imperial Academy of Sciences, and now under the consideration of the Medical Council of the Minister of the Interior."

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL. — The "William Brown Exhibition" of £40 per annum for three years, to the student showing the best general fitness for the exercise of the Medical Profession, has been awarded to Mr. Francis M. Evans. Mr. W. Wilson Coltart, the second in order of merit in the competition, has been presented with a special prize by Mrs. Brown, the founder of the Exhibition, in acknowledgment of the excellence of his examination. The "Henry Charles Johnson Memorial Prize" in practical anatomy has been awaded to Mr. E. J. Spitta, and the Honorary Certificate to Mr. W. A. Frost.

EXAMINATIONS IN ANATOMY AND PHYSIOLOGY.—The following were the questions submitted to the candidates at the primary examination for the diploma of Membership of the College of Surgeons on Saturday last, viz.:—1. Describe the boundaries of the posterior mediastinum, and its contents, in their relative position. 2. Describe the structure of veins, and the forces by which the venous circulation is carried on. 3. Describe the ligaments of the hip-joint; and mention the muscles in contact with its capsule. 4. Give an account of any experiments with which you are acquainted, illustrating the influence of the pneumogastric nerve upon the action of the heart. 5. Describe the ligaments connected with the clavicle, and mention the parts which pass beneath it it in their relative position. 6. Describe the ciliaris muscle and its action.

THE NEW STRASBURG UNIVERSITY.—The lectures are to commence on May 1 and terminate on August 15. The following are the courses to be delivered:—1. Professors Oscar Schmidt (from Graz)—Introduction to Zoology and the Natural History of the Lower Animals, with zootomical and microscopical practic. 2. Waldeyer (Breslau)—Osteology and Syndesmology, General Anatomy, and the Anatomy of the Brain and Spinal Cord. 3. Hoppe-Seyler (Tübingen)—Physiological and Pathological Chemistry (with a private laboratory Medico-chemical course) and Dietetics. 4. Schmiedeberg (Dorpat)—Materia Medica and Therapeutics. 5. Von Recklinghausen (Würzburg)—Special Pathological Anatomy and Physiology, with demonstrations and microscopical practice. 6. Leyden (Königsberg)—Diagnosis, Clinical Medicine, and Diseases of the Kidneys. 7. Lücke (Bern)—Clinical Surgery, Operations, and Diagnosis of Tumours. 8. Gusserow (Zurich)—Midwifery and Diseases of Women. 9. Laqueur (Lyons)—Ophthalmology. 10. Kraft-Ebing (Stephansfeld) — General and Clinical Psychiatry. Seven of the former Professors of the Faculté de Médecine will terminate their annual courses in the French language. Besides the above lectures, others will be delivered on Botany, by Du-Bary (Halle) and Von Solms-Laubach (Halle); on Chemistry, by Bueyer (Berlin; and on Physics, by Kundt (Würzburg).

LIFE INSURANCE.—Our Profession is just now appealed to for help by several of its members whom misfortune and sickness have struck down, and by the widows of others who, after having benefited Medical science and the public, have left behind them no ostensible reward of their labour. We hope that these appeals will meet with all the success they deserve: but we should gladly see amongst all ranks of our Profession a little more prudence and forethought in the management of the ordinary business of life. We know how difficult it is for men engaged in ministering to the wants of others to find

time to attend to their own. As we have recently observed, early life-insurance offers the only hope of providing for a family in case of death which many Medical men can entertain. We would, therefore, repeat our counsels to young men entering on practice to insure, and insure early, but not too largely, and let the premiums be so arranged as to cease at 60. To the offices whose names we have before mentioned, as those in which many Medical men are interested, we would add the Prudential, whose prospectus seems to offer considerable advantages. We are glad to see that the habit of life assurance is making way amongst workpeople and *employés*. For this class of persons the Royale Belge Life and Accident Assurance Company seems to be especially intended.

PYÆMIA.—The number of the *New York Medical Record* for April 1 contains a long and elaborate essay on the "Pathogeny of Pyæmia and Septicæmia," from the pen of Dr. Mary Putnam, one of the lecturers of the Women's Medical College of the New York Infirmary.

THE EARLIEST ENGLISH DENTISTS.—Professor Oliver Wendell Holmes, in an eloquent and amusing introductory address delivered to the students of the Dental Department in Harvard University (reported in full in the *Boston Journal*, February 29), observes:—"It is a long interval from Galen to the middle of the seventeenth century. But I had not found any other traces of a special dental profession until I came upon the following, which looks very much as if it referred to such specialists. In the diary of the Rev. John Ward, vicar of Stratford-on-Avon from 1648 to 1679, is the following:—'Uppon a signe about Fleet Bridg this is written: Here lives Peter de la Roch and George Goslin, both which, and no other, are sworn operators to the King's teeth.'"

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—Bacon.

Mr. A. B. Steele is thanked. But we had received notices of the deceased *confrère* from three other sources.

F. S.—For a very good, long-established, and lucrative practice, say two years' income; but the price must vary with locality, rate of fees, length of introduction, and whether a death vacancy or no.

Ishmael.—First, Epsom salts with iron and sulphuric acid, *omni mane*; secondly, Calvert's carbolic soap. Address, "The Registrar of the General Medical Council, Soho-square."

Consul, Venezuela.—It is not held to be wrong to vaccinate during the incubation of small-pox. The vaccine disease will run its course side by side with the variolous, and will probably favourably modify the latter. This is not a new discovery.

MEDICAL CONGRESS AT LYONS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I should feel obliged if you would announce in your journal that I have been authorised by the president to receive the names of members of the Profession in England who are willing to support the Congress by becoming *membres-adhérents*. This entails no pecuniary contribution. I shall forward such names to Lyons, and they will be printed in the lists in due course. The questions to be discussed have already been announced in your journal. I am, &c., PASSER JAMES.

18, Dover-street, Piccadilly, W., April 23.

Wenham Lake.—The Company get their ice from a lake in Norway. It is brought in large blocks to the Surrey Docks, and stored in the Surrey end of Waterloo-bridge. In the Strand premises these blocks are sawed and planed into the shape of pyramids one sees at table. There can be no question of the extreme purity of the ice.

Cundurango.—The American Surgeon-General's Circular, No. 3, dated Washington, August 31, 1871, gives one of the reputed cases of cure of cancer by this drug, and describes it as a commercial speculation—not as a remedy for cancer. Surgeon Basil Norris, U.S.A., speaks with approval of the compound of bromide of potassium, acetic acid, and water as an external soothing application, as recommended by Dr. Osborne, of Southampton.

A QUERY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am desirous for important reasons to ascertain the name of the Medical man who, in July, 1869, on the night of the debate in the House of Lords on the Irish Church Bill, was called in to attend the late James Earl of Kingston, at Claridge's Hotel, on the occasion of a sudden attack of illness. If you would kindly insert this communication in your valuable paper one of your numerous readers may be able to give me the information required. I am, &c., HENRY WHITE.

7, Southampton-street, Bloomsbury, W.C., April 24.

P.S.—Mr. James Startin has suggested my writing to you on the subject.

Dr. C. Clark (Brighton, Victoria).—The letter has been received with much pleasure. We are glad that our old friend and contributor appreciates the articles to which he refers. His communication will probably be further alluded to on a future occasion.

The "Social Science and Joint Committee's" Opposition to Mr. Stansfeld's Bill.—We have received a letter from Dr. A. P. Stewart, in which he points with commendable pride to the "thought, time, and self-denying labour" which these bodies have expended in devising a perfect scheme of sanitary organisation, and claims for its "deliberate and collective opinions" some degree of respectful attention—in fact, Dr. Stewart regards any opposition to their opinions or movements as a "public wrong," an "inuendo," "simply ridiculous," etc. Let us substitute the Royal Sanitary Commission, or the Local Government Office, or any other body who have spent "thought, time," etc., in excogitating sanitary measures. Why does not Dr. Stewart think them above criticism? Or why cannot honourable men criticise each other's opinions without intermixture or auspicion of personal disrespect?

Poor-law Medical Officers as Medical Officers of Health.—We would respectfully call Dr. Stewart's attention to the following passage in the memorial of the Joint Committee to Mr. Stansfeld:—

"That the Poor-law Medical Officers, being necessarily dependent for success in private practice on the goodwill of their neighbours, many of whom are interested in the very abuses which it would be their duty to denounce if they were appointed *sole* Officers of Health in accordance with the provisions of the Public Health Bill, protest against being burdened with duties and responsibilities for the right discharge of which they feel that their position disqualifies them; though as *assistants* to responsible Medical chiefs, their services would be both willingly rendered and of the highest value."

The very function which the Poor-law Medical Officers shrink from undertaking is that which would be laid on them by this proposal. It is the first step—the pointing out the black spots: the houses where fever and diarrhœa prevail from defective drainage and polluted water—which must fall to the lot of the Poor-law Medical Officer; and it is this denunciation which is more odious than the measures it leads to.

PILES AFTER LABOUR.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—For "piles" say congestion and bruising of the rectum. The piles are a mere accident of a temporary injury. Ice, or iced water, is the remedy used by Yours, &c., A. B.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In reply to the question of "R. E. P.," though I know of no means of averting piles after labour, except emptying the large gut, and afterwards giving good diet, yet he will probably find the anguish of which he speaks (and which generally depends upon inflammation of the pilea, with great tenseness and tenderness) relieved by lead and opium lotion—sixty minims of liq. plumbi diacet., and the same or a larger quantity of laudanum, in half a pint of rain-water. This lotion is used until the swellings are no longer tender to the touch, when the ointment of gall and opium usually completes the cure.

In the inflamed state of piles the lotion always gives immediate relief. It should be constantly applied, not quite cold, and to the piles only.

Pier-road, Erith, S.E. I am, &c., T. CHURTON.

A Competitor.—It will be seen in a report of the proceedings of the last meeting of the Council of the College of Surgeons, published in another page, that of the six essays sent in for the Jacksonian Prize none were deemed worthy of the prize. "Ununited Fractures" is the subject for the prize of 1873.

An Inhabitant of Poplar.—We think it not creditable to those interested in the important district of Poplar that they have not the spirit to maintain a small Hospital in that locality, where accidents are of frequent occurrence, and the nearest Hospital—the London—being a considerable distance off. Under the circumstances it would be far better for the Governors of the Poplar Hospital to accept the offer to purchase the building for a convalescent home.

THE BAKER BROWN FUND.

This fund is being raised on behalf of Mr. Isaac Baker Brown, who is paralysed, and in great pecuniary distress.

Fifth List of Subscriptions.

	£	s.	d.		£	s.	d.
Amount previously advertised	284	16	0	Dr. Rd. Neale, Boundary-road, St. John's-wood ...	2	2	0
Mr. Myers, Coldstream Guards	1	1	0	Dr. G. O. Spencer	1	1	0
Dr. Tyacke, Chichester ...	1	1	0	Mr. Thos. Norris, Chelsea	1	0	0
Mr. Alfred Leggatt ...	1	1	0	Mr. W. J. Square, Plymouth	1	0	0
Dr. Randall...	1	1	0	Mr. Alf. Rooker (per Mr.			
Dr. Shettle, Reading ...	1	1	0	W. J. Square, Plymouth)	1	0	0
Dr. Moxey, Turnham-grn.	1	1	0	Mr. Joseph Kisch	1	1	0
Mr. James M. Appleton...	1	1	0	Mr. Campbell Davies, Sandbach	2	2	0
Mr. C. J. Bleek, Warminster	1	1	0	Dr. Morell-Mackenzie ...	2	2	0
Rev. W. H. L. Cogswell...	1	1	0				

The Treasurers are Dr. Forbes Winslow, 23, Cavendish-square, and Dr. Charles Cogswell, 47, York-terrace, Regent's-park, to whom subscriptions may be sent.

Lex.—There must, we think, be an error in the report of the proceedings. The coroner has no legal power to order a Medical witness to make an analysis of any preparation under the ordinary summons issued under the provisions of the Medical Witnesses Act. The Medical Practitioner is, however, bound to comply with the requirements of the summons; and where it states that he is to make a post-mortem examination of the body, and analyse the contents of the stomach, and give evidence thereon, he is liable in default of so doing to a penalty of £5. There is no fund provided by law for the payment of analyses of anything not contained in the body of the deceased person. It is, however, in the power of the Home Secretary to order such payments out of the public purse.

Payment for Prescriptions.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will you kindly say in your next Answers to Correspondents whether a general Practitioner acts correctly, and in accordance with the custom of the Profession, in charging a fee when applied to for a prescription for a patient who has been under his care (in the case in point the maid of a wealthy lady), he having been paid for his previous attendance and the medicine then furnished?

General Practitioner, when requested to give a prescription, has hitherto charged for it either one guinea or half a guinea, according to the social position of the patient; but it is now suggested to him that this is an unusual demand to make.

*** We should say—charge for the prescription as for a visit.

COMMUNICATIONS have been received from—

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BOOKS RECEIVED—

Cases from Practice, with Clinical Remarks, by Staff Assistant-Surgeon W. Curran—Medical Education in America, by Dr. Henry J. Bigelow—On the Antagonism between the Actions of Physostigma and Atropia, by Dr. T. R. Fraser—On Feeling Ill, by Dr. W. A. Johnson—Introduction to the study of Biology, by Dr. H. Alleyne Nicholson—On Winter Cough, by Dr. Horace Dobell—Vital Statistics and Meteorological Report of the Borough of Salford, 1871—Annual Report of the Surrey County Lunatic Asylum.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Dublin Journal of Medical Science—Lincoln Journal—Pharmaceutical Journal—The Clinic—Australian Medical Journal—Glasgow Herald—Melbourne Argus—American Journal of Medical Science—Birmingham Morning News—The Free West.

APPOINTMENTS FOR THE WEEK.

April 27. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Gresham College, 7 p.m. Dr. E. Symes Thompson, "On Doses of Medicine."

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Star Depths."

29. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Dr. Sansom, "Some New American Preparations derived from Petroleum." Dr. Semple, "Specimen and Case of Disease of Right Portion of Heart." Dr. Chapman, "On the Treatment of Diabetes." Mr. Thomas Bryant (President), "On Skin-grafting."

30. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

May 1. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Newman, "On a Case of Delivery *per Vias Naturales*, in which the Cæsarian Section had formerly been performed. Dr. Squarey, "On the Cases of Three Sisters in whom the Uterus and Ovaries were Absent." Dr. Braxton Hicks, "On the Structure of the Human Placenta." And other Papers.

Royal Institution, 2 p.m. Annual Meeting.

Society of Arts, 8 p.m. Meeting.

2. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Mr. George Eastes, "Use and Abuse of Alcohol in Health and Disease."

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Light."

3. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Medical Society of London, 8 p.m. Meeting of Council.

Royal Institution, 9 p.m. Mr. Wm. Spottiswoode, "On Optical Phenomena produced by Crystals when submitted to Circularly Polarised Light."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 20, 1872.

BIRTHS.

Births of Boys, 1165; Girls, 1087; Total, 2252.
Average of 10 corresponding weeks, 1862-71, 2146 5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	752	658	1410
Average of the ten years 1862-71	736·1	700·8	1436·9
Average corrected to increased population	...	...	1581
Deaths of people aged 80 and upwards	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	5	17	2	1	9	1	1	...	3
North ...	751668	24	18	2	2	15	...	3	1	1
Central ...	333887	1	8	...	2	5	1	2	1	3
East	638928	12	20	3	..	25	...	2	...	3
South	966132	6	14	4	2	18	1	8	1	3
Total	3251804	48	77	11	7	72	3	16	3	13

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·742 in.
Mean temperature	46·2°
Highest point of thermometer	68·5°
Lowest point of thermometer	29·6°
Mean dew-point temperature	37·1°
General direction of wind	N.N.W., N., & N.E.
Whole amount of rain in the week	0·08 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 20, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending April 20.	Deaths Registered during the week ending April 20.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2252	1410	68·5	29·6	46·2	7·89	0·08	0·20
Portsmouth ...	115455	12·1	61	59	67·6	30·4	46·3	7·94	0·03	0·08
Norwich	81105	10·9	39	34	65·0	27·0	43·3	6·28	0·19	0·48
Bristol	186428	39·8	140	95	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	51	27	65·1	32·8	43·9	6·61	0·04	0·10
Birmingham ...	350164	44·7	270	133	66·8	33·4	45·5	7·50	0·20	0·51
Leicester	99143	31·0	77	42	65·7	30·7	44·9	7·17	0·14	0·36
Nottingham ...	88225	44·2	62	34	65·9	32·6	46·1	7·83	0·10	0·25
Liverpool	499897	97·9	368	282	57·6	33·5	43·8	6·55	0·01	0·03
Manchester ...	352759	78·6	258	187	62·0	31·8	44·7	7·06	0·03	0·08
Salford	127923	24·7	106	59	58·5	31·1	43·2	6·22	0·00	0·00
Oldham	84004	20·2	68	42	...	...	...	...	...	...
Bradford	151720	23·0	173	83	61·0	34·7	44·7	7·06	0·12	0·30
Leeds	266564	12·4	212	124	62·0	36·0	45·8	7·66	0·40	1·02
Sheffield	247847	10·9	189	113	64·0	33·0	44·3	6·84	0·22	0·56
Hull	124976	35·1	88	61	63·0	28·0	43·3	6·28	0·28	0·71
Sunderland ...	100665	30·4	92	46	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	88	65	55·0	31·0	41·4	5·22	0·33	0·84
Edinburgh	205146	46·3	125	120	56·0	32·0	43·8	6·55	0·01	0·00
Glasgow	489136	94·8	425	280	54·5	31·4	44·6	7·00	0·01	0·03
Dublin	310565	31·9	133	191	65·4	32·0	45·2	7·33	0·22	0·56
Total of 21 Towns in United Kingd'm	7394345	34·0	5277	3487	68·5	27·0	44·5	6·95	0·13	0·33

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·74 in. The highest was 30·11 in. on Sunday, the 14th inst., and the lowest 29·30 in. at the end of the week.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

payable under *all* these contracts, have been carefully computed. To provide for future expenses and profits the following deductions from the present value of the Premiums have been made—viz., in the General Branch 20 per cent. for the participating, and 10 per cent. for the non-participating Policies; in the Industrial Branch 41 per cent. The amount of such provision is £128,834 per annum.

The effect of these deductions is to make a reserve in the General Branch closely approximating to the result which a pure premium valuation would have produced, and in the Industrial Branch to make an ample provision for the expenses, and further to assign a positive value to each of the classified groups of the liabilities at every age of life. When it is added that the present value of the future Premiums in the Industrial Branch is very nearly eighteen years' purchase, further comment on the sufficiency of such a reserve is needless.

The general results of the valuation are as follows—viz.:—

Assurance Fund			£383,110
Estimated Liabilities:—			
General Assurances	£224,281		
Annuities...	36,976		
Sickness, &c.	576		
		£261,833	
Industrial...	45,181		
			307,011
Surplus			£76,096

Of this surplus I would suggest that the amount to be divided on the present occasion should not exceed £60,000. If this suggestion be adopted, the share of four-fifths to which the assured are entitled would be equivalent to £27,157 per cent. on the amount of Premiums paid during the last five years on the Policies entitled to participate, and this would be sufficient to give reversionary bonuses averaging more than 51 per cent. on that amount, a result which cannot fail to be satisfactory in the highest degree.—I am, Gentlemen, your obedient Servant, ARTHUR H. BAILEY, Actuary.

London Assurance, 7, Royal Exchange, 4th April, 1872.

To the Directors of the Prudential Assurance Company.

Gentlemen,—As instructed by you, I have made a valuation of the Assurance and Annuity Contracts in the Ordinary Branch, which were subsisting at the 31st December, 1871.

The Business of this Branch comprises three classes of transactions:—

1st. Life Assurance Policies.
2nd. Policies securing Assurances at Death, together with allowance in case of Sickness.
3rd. Annuities.

In the first class, there were existing at the date of valuation 11,179 Policies, assuring, with Bonuses, the sum of £1,790,292, and producing an Annual Premium Income of £60,549 2s. Of this amount, £35,238 is reassured at a cost of £1203 16s. annually.

In the second class, the number of Policies was 25, securing £1716 5s. (inclusive of Bonus) at death, and £13 5s. a week in case of sickness. This class produces an Annual Premium Income of £84 18s. 2d. It will be seen that the amount of this business is inconsiderable. The liability under it amounts to £576 18s. 4d., in addition to the sum at present standing to the credit of this class, which has not been included in the General Valuation of the Life Assurance business, but forms a separate fund.

The number of the Immediate Annuity Contracts was 148 for £4303 18s. per annum.

The number of Policies for Deferred and Contingent Annuities was 38 for £1032 2s., in respect of which annual premiums are receivable to the amount of £120 10s.

These various contracts have been valued on the assumption that the mortality experience of the Company will be the same as that shown by the Carlisle Table, and that the Interest realised will be 3 per cent.

For the purpose of valuation, the great bulk of the Policies, after being separated into the various classes of risks, have been valued in groups, according to the ages attained. In certain classes where this mode was not practicable, each Policy has been valued separately.

In estimating the values of the future premiums, the office premiums actually payable have been taken into account. If, however, credit were taken for the full value of these premiums, it is obvious that no provision would be made for future expenses and profits. A reserve has therefore been made for these objects of 20 per cent. of the official premiums on Policies participating in profits, and 10 per cent. in the case of non-participating Policies. The amount of the margin so reserved is £10,664 per annum.

The result of the Valuation is as follows:—

Life Assurance Contracts			£224,281
Annuities			36,976
			261,257
Sickness and Assurance	£724		
Less Amount of Special Fund under this head ...	148		
			576
Total Reserve for Ordinary Branch			£261,833

The whole of the statements and calculations, involving a very large number of operations, have been made with great care, and every detail has been carefully verified as the work proceeded.—I have the honour to be, Gentlemen, your obedient Servant,

62, Ludgate-hill, 4th April, 1872. WILLIAM HUGHES, Actuary to the Ordinary Branch.

To the Directors of the Prudential Assurance Company.

Gentlemen,—In accordance with your instructions, I have personally superintended the valuation of the Assurances in the Industrial Branch of the Company.

The valuation is made up to the 31st December. 1871, the number of Policies valued being 812,208, assuring on this date £6,531,934 4s., and producing an Annual Premium Income of £288,221 5s. 4d., which amount I have verified by the ledgers of the Company.

Although many of the Clauses and Schedules of the Life Assurance Companies Act, 1870, are not fairly applicable to what is termed Industrial Assurances, I have, nevertheless, on the occasion of a first complete valuation of this Branch, adhered strictly to the forms of the Act, necessitating the enormous labour of dealing with nearly one million valuation cards.

The Carlisle Table of Mortality has been the basis of the calculations, and the interest to be realised has been assumed at the rate of 3 per cent. per annum.

From the peculiar nature of Industrial business it is quite impracticable, if not impossible, to adopt the net Premium system of valuation; the value of the office Premiums only has therefore been computed, and from this an average of 41 per cent. has been deducted in order to determine the net liability. A valuation made on these principles will produce positive values at every age.

The margin of the Annual Income thus deducted is £118,170 14s., and this is 16 per cent. more than the fixed expenses of the Industrial Branch.

The extension and special new business expenses of past years have been defrayed out of the first year's income from new business, the Company receiving full Premiums but not incurring the liability of the full sum assured in most cases for twelve months; and if the item of extension and special new business charges is continued, the amount of Premiums received in respect of the new business for which no liability attaches will be more than sufficient to defray such charges.

The summary of the valuation of all the Policies in the Industrial Branch according to the principles stated is as follows:—

Present Value of Sums assured			£3,099,439·4
Present Value of Premiums ...	£5,176,708·9		
Less 41 per cent.	2,122,450·6		
			3,054,258·3
Net Liability			£45,181·1

The net amount reserved for the Industrial Branch in 1866, with a premium income of £118,000, was £25,000, but this amount was purely hypothetical, as no means were then in existence for ascertaining the exact reserve required; but the valuation now concluded shows that with a premium income of £288,221, and providing a larger margin for expenses than is really necessary, the liability has been found to be only £45,181 2s., which conclusively proves that the amount reserved in 1866 was largely in excess of the requirements of the case.

In the present Valuation no allowance whatever has been made for the temporary character of a large portion of the business, and in valuing the Adult Assurances effected during 1871 and in force at the period of Valuation, amounting to £1,694,244, I have considered this the full actual liability, although it is not incurred until all the policies have been one year in existence.

In obtaining the particulars from the cards, every operation has been checked, and this has involved the necessity of passing each of the cards through the hands of sixteen persons, and the calculations, which occupy more than 8000 sheets, have all been twice checked, so that the result now obtained can be relied upon as accurate.—I have the honour to be, Gentlemen, your obedient Servant,

62, Ludgate-hill, 4th April, 1872. THOMAS CHAS. DEWEY, Actuary Industrial Branch.

Reports, &c., may be obtained of the Secretary, Henry Harben.

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Hunterian Professor.

Lecture IV.

(*Continued from page* 453.)

All the monkeys hitherto spoken of have exactly the same dental formula as Man—viz., $i.\ \frac{2}{2}, c.\ \frac{1}{1}, p.\ \frac{2}{2}, m.\ \frac{3}{3}$, total 32. The next family, the *Cebidæ*, have an additional premolar above and below, the formula being—$i.\ \frac{2}{2}, c.\ \frac{1}{1}, p.\ \frac{3}{3}, m.\ \frac{3}{3}$, total 36. They are all inhabitants of South or Central America. Like most of the Old World monkeys, they appear to be very mixed or indiscriminate feeders, chiefly subsisting on various kinds of fruits, but also partaking at times of insects and other small animals.

One of the most characteristic forms, and perhaps the most elevated in the scale, is the genus *Ateles* or Spider Monkey, distinguished by the slenderness of the body, the great spider-like length of the limbs, the strong prehensile power of the tail, and absence of thumbs on the anterior extremities.

Of the viscera of one of these, the black-handed spider-monkey (*Ateles melanochir*), the Museum contains several preparations, from a specimen recently received from the Zoological Society's Gardens. It was a nearly adult female, all the permanent teeth being in place, except the last molars. The length from the nose to the root of the tail was twelve inches, the length of the tail twenty-two inches.

As in all the other American monkeys there are no cheek-pouches. The lining membrane of the lips and cheeks are smooth. The palatal ridges are about eight on each side, not meeting in the middle line, irregular and sinuous, and not strongly developed. The posterior edge of the soft palate is thickened and forms a broad arch, without any appearance of uvula.

The tongue is rather lancet-shaped and pointed at the apex. The lateral group of linear follicles at the base of the palato-glossal fold is very distinct and large. The papillæ generally are small and soft. Of circumvallate papillæ there are only two, situated side by side, close to the middle line opposite the attachment of the palato-glossal folds. The frænum is attached very near (three-tenths of an inch) to the apex of the tongue, which has a strong median groove below. The sublingual papilla is rather small, soft, thick, and pointed, with a slightly bifid apex.

The parotid and submaxillary glands are largely developed, coming in contact with each other for a considerable space. The sublingual gland forms a longitudinal prominence on each side of the floor of the mouth beneath the tongue, its anterior extremity extending into the sublingual papilla.

The stomach still greatly resembles that of man in form, but is, perhaps, rather longer and more slender, and the *antrum pyloricum* is more developed. It is much curved in its long diameter, the anterior surface being convex and the posterior concave, as was noticed in the gibbon. The great omentum was drawn up close to the lower border of the stomach, so that when the abdominal cavity was opened it did not cover the intestines. Its anterior layer depends from the stomach, and its posterior layer returns behind that organ without involving the greater part of the transverse colon, though attached to its right end at the junction with the ascending colon, as in the *Cercopithecidæ*.

The small intestines are ninety-five inches in length, or about eight times that of the body. There are no valvulæ conniventes, but Peyer's patches are numerous and large, especially in the lower half of the intestine; about twenty-five, of various sizes, were counted in all. The large intestine, without the cæcum, is seventeen inches long, loosely suspended throughout, except at the right superior bend, where its peritoneal connexions attach it to the duodenum and right end of the stomach. It gradually diminishes in calibre from the upper to the lower end, and is not so long or tortuous as in the smaller Old World monkeys, and is very little sacculated, except at its commencement. Single dark-coloured closed follicles, and small groups of two to four similar follicles, are sparingly scattered on its mucous surface.

The cæcum (Fig. 16) is three inches and a half long when undistended, of pretty nearly equal thickness throughout, and with a rounded apex. When filled with water or air it became curled in a half-circle, being kept in this position by a pair of peritoneal folds—one passing on each side of the entrance of the ileum, and extending close to the apex of the cæcum, which they cause to bend very abruptly. In addition to these there is a small median fold or frænum passing from the convex or free border of the ileum to the concave border of the cæcum, corresponding to the single fold observed in the Old World monkeys. The cæcum is not sacculated, the lateral longitudinal muscular bands of the colon (which are by no means well marked) only commencing but a little way from the ileo-cæcal junction.

Fig 16.

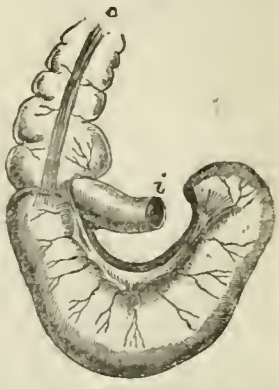

Fig. 16.—Cæcum of black-handed spider monkey (*Ateles melanochir*): *c* colon, *i* ileum.

The liver (Fig. 17) is larger from before backwards than transversely, in accordance with the elongated compressed form of the abdominal cavity. It is very symmetrically divided into the four principal lobes. The umbilical fissure (*u*) is short, extending not a fourth of the distance from the free edge to the posterior border above, and being partially bridged below.

Fig. 17.

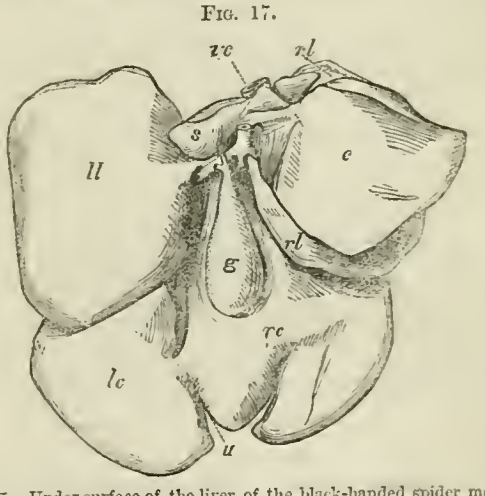

Fig. 17.—Under surface of the liver of the black-handed spider monkey (*Ateles melanochir*): *u* umbilical fissure, *vc* vena cava, *ll* left lateral lobe, *lc* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *s* Spigelian lobe, *c* caudate lobe, *g* gall-bladder.

The two central lobes (*lc* and *rc*) have very rounded external borders; the right is slightly larger than the left, and has a notch at its free edge, near to the fundus of the gall-bladder. The two lateral fissures extend to one-third of an inch from the posterior border. The lobes (*ll* and *rl*) they cut off, are subtriangular, smaller than the central lobes, and the right smaller than the left. The Spigelian lobe (*s*) has a considerable-sized tongue-shaped process projecting forwards and to the left, and a small process to the right overhanging the base of the caudate lobe. The latter (*c*) is very large, being about the same size as the right lateral lobe, beyond which its pointed apex projects. By this character the liver is easily distinguished from that of any of the Old World monkeys. The vena cava is superficial, separating the Spigelian from the posterior border of the right lateral lobe. The gall-bladder (*g*) is pyriform, sunk in a depression on the lower surface of the right lateral lobe, near its central margin, and not reaching its free border by about an inch.

The common Capuchin monkey (*Cebus capucinus*) may be taken as another type-form of this family. In a specimen lately (February 17) received from the Zoological Gardens the lips are thin, the lining membrane of the cheeks smooth, and

though they are lax and extensible, they form no distinct pouches. There is no median frænum to the lower lip, but a distinct one to the upper. The palate has eleven pairs of symmetrical, much-curved ridges, not extending across the middle line; posteriorly the ridges become less developed and irregular. The palato-glossal folds are sharply defined, meeting above in a regular arch, leaving a small crescentic faucial aperture. The soft palate is continued some little distance behind the palato-glossal folds, and has a rudimentary uvula. The tongue is narrow, and rounded in front. The fungiform papillæ are large, and scattered evenly over the surface; the filiform are long and soft; and the circumvallate papillæ are three in number, and have the usual disposition.

The parotid gland is of moderate size, of a flattened roundish form, altogether below the meatus auditorius externus, and with a distinct lobule projecting forwards over the masseter, from which the duct proceeds. This terminates by a simple orifice which will readily admit a bristle, rather further forward than in man, being opposite the interspace between the first and second premolar teeth. The submaxillary gland is of an elongated oval form, extending from beneath the angle of the jaw nearly half-way down to the sternum, occupying the "anterior triangle" of the neck, and in contact with the parotid above; posteriorly it is partially divided into an outer (larger) and an inner (smaller) lobe; in front several small partially detached lobules are clustered round the commencement of the duct. The latter runs forward in the usual course, and opens on the *under* surface of the flattened heart-shaped sublingual papilla, which is but slightly bifid at the apex. The sublingual gland consists of a number of delicate lobules lying just beneath the buccal mucous membrane, in contact with the anterior half of the duct of the submaxillary.

The stomach is more globular in form than in the spider monkey, the cardiac and pyloric orifices more approximated, and there is no distinctly marked pyloric compartment. The great omentum has the usual arrangement found in animals of this group, its posterior or deep layer involving the right third of the transverse colon and the upper half of the ascending colon. The small intestine is fifty-eight inches in length, or rather more than four times the length of the body (from mouth to anus was thirteen inches); the large intestine, including cæcum, only eleven inches in length. The duodenum forms a large loop to the right, supported by a loose mesentery before it crosses the spine, beneath the ascending colon. Peyer's glands are numerous and large throughout the small intestine from the duodenum downwards, and in the lower part of the ileum very long, and following each other with scarcely any interval. The cæcum is placed on the right side, nearly midway between the diaphragm and pelvis, simple, two inches long, of even width, with a blunt rounded extremity, and sharply curved, being retained in that position by a single median peritoneal frænum, without the lateral bands noticed in the spider monkey. The colon is comparatively small and simple, having no distinct longitudinal bands or sacculations, and the ascending, transverse, and descending colons are each nearly straight (without sigmoid flexure), and attached by a loose mesocolon throughout.

The pancreas is much like that of man, consisting of a principal narrow elongated part, reaching transversely to the spleen on the left, with a considerably developed process running down from the right end along the inner curvature of the duodenum. The duct joined the bile-duct to enter the duodenum rather less than an inch from the pylorus. I could find no second pancreatic duct.

The liver occupied considerably more of the right than the left side of the abdominal cavity. It is wider transversely than from before backwards, differing in this respect from that of *Ateles*. The umbilical fissure is well marked, and divides it into two segments, of which the right is considerably the larger. The lateral fissures do not extend quite to the posterior border. The lobes progressively decrease in size from the right lateral to the left lateral. On the under surface the left lateral has two small tongue-like accessory lobules near its inner border. The Spigelian lobe is long and pointed, and directed to the right, lying alongside of the caudate, which is smaller relatively than in *Ateles*, its apex not quite reaching the lateral margin of the right lateral lobe. The gall-bladder is deeply embedded in a fossa on the under surface of the right central lobe, near its left margin, so that the edge of the left central lobe overlaps it. The apex does not extend to the free edge of the lobe by half an inch, and there is no trace of a cystic fissure.

Another characteristic and well-known genus of this group is *Mycetes*, containing the howling monkeys, remarkable physiologically for their stentorian voices, and structurally for the extraordinary modification of their vocal organs, especially the great drum-like expansion of the basi-hyal bone. These animals, natives of the tropical Brazilian forests, are very intolerant of confinement, and have in but few instances survived the voyage across the Atlantic; hence not many opportunities have occurred of examining the visceral anatomy of recent specimens. Fortunately, two adult specimens, which lived for a short time in the Zoological Society's Gardens, and were dissected here, and from which several preparations were made for the Museum, will enable me to furnish some information on this point.

With regard to the stomach, Cuvier says,(a) "Celui des *alouattes* a des parois épaisses et musculeuses au cardia et au pylore, une forme globuleuse dans son grand cul-de-sac et cylindrique dans sa partie pylorique. J'ai même trouvé dans une espèce quelque traces de boursoufflures le long de la grande courbure, qui le rapprochent un peu de celui des semnopithèques."

In both the specimens of *M. seniculus*, the stomach (one of which is preserved in the Museum) was perfectly simple, without any trace of sacculations. Its form is very much that of the human stomach, but rather elongated, the cardiac pouch being more developed. The *antrum pyloricum* is also more dilated, and marked off by a distinct constriction from the rest of the cavity. When moderately distended its greatest length was 7·5 inches, and its greatest thickness 3·8 inches.

The small intestine had, as usual, no valvulæ conniventes, and the Peyer's patches were small and not numerous. The colon had only one broad longitudinal muscular band, exactly opposite the attachment of the mesocolon. The cæcum was very different from that of *Ateles*, being very capacious and comparatively short, in the form of an obtuse rounded cone, curved towards the side of the ileo-cæcal valve. Its length when distended was 2·5 inches, and its width at the commencement 2·2 inches.

The liver resembles that of *Ateles* in general characters, but the central lobes are much smaller, their sides being more parallel, and not expanding towards the anterior or free part. The left is considerably smaller than the right; the umbilical fissure extends nearly half-way between them. The cystic notch is very small, and close to the umbilical. The lateral lobes are both relatively larger than in *Ateles*, and the same may be said of the caudate and Spigelian lobes, which otherwise have the same general shape.

Certain other monkeys of this family, sometimes called Sakis, are united to form the genus *Pithecia*. They are smaller than the howling monkeys, but in some respects not far removed from them. A nearly adult female of *P. monachus*, dissected at the College in 1862,(b) measured eleven inches from the nose to the root of the tail.

The tongue, from the base of the epiglottis to the tip, is 1·4 inches, and its breadth nearly uniformly half an inch, its sides being nearly parallel, and the tip truncated. The sublingual papilla is fleshy, except towards the end, and sharp-pointed; free to the extent of a quarter of an inch, and fissured in the middle line at the tip.

The stomach is simple, and of a more globular form than in the higher monkeys, the cardiac and pyloric orifices being much approximated; the pyloric portion somewhat lengthened and tubular. The small intestine, from the pylorus to the ileo-cæcal valve, measures fifty inches, and is of the uniform diameter of four-tenths of an inch. Peyer's patches (the largest one and a quarter inch long) are scattered at tolerably regular distances all along the canal. There are no valvulæ conniventes. The common bile-duct and pancreatic ducts enter the posterior part of the duodenum half an inch from the pylorus.

The large intestine, from the ileo-cæcal valve to the anus, is twenty-two inches long, nearly an inch in diameter at the commencing, but rapidly diminishing to the same calibre as the small intestine, but slightly increasing again towards its termination, scarcely showing any tendency to sacculation. The cæcum large and long, being four inches and a half in length, and of greater calibre than the large intestine, from which it is distinctly marked off by a deep constriction passing obliquely round the gut, but slightly diminishing in size as it approaches its terminal end, which is obtuse and rounded. It presents a tolerably uniform curve, almost a semicircle in the same plane.

The liver has the four principal lobes very distinct. Both

(a) "Leçons d'Anatomie Comparée," 2nd edition, tome iv., part 2, p. 28, 1835.

(b) See *Proceedings of the Zoological Society*, 1862, page 326.

lateral lobes are larger than the central lobes. The caudate lobe is of remarkable size, larger than the right lateral, of quadrate outline, with a narrow base by which it is attached to the Spigelian lobe, and a pointed apex at the opposite end connected by a strong diagonally running ridge. The Spigelian lobe has a prominent rounded extremity to the left, and a small tongue-like process to the right, lying over the base of the caudate lobe. The vena cava runs superficially in its fossa. The gall-bladder is broadly pyriform; it is rather loosely attached to the under surface of the right central lobe, but its apex does not reach the free border by a considerable distance.

It will be observed that all the members of this group in which I have been able to describe the liver, agree in the depth to which the lateral fissures cut up the organ into its four principal lobes, and also in the great development of the caudate lobe, which is the principal character by which they can at once be distinguished from the Old World families, and which, as might be expected, appears to increase in size in descending the scale from the higher to the lower forms.

The last division of the *Simiina*, or true monkeys, constitutes the family *Hapalidæ*, comprising a number of elegant and delicately made animals of diminutive stature, like the last all inhabitants of the South American forests, but distinguished from them by their dentition, for with the same number of premolars (viz., $\frac{3}{3}$), the posterior true molar is absent, and the total number of teeth is thus reduced to that of the Old World monkeys, though differing in kind; the dental formula being $i. \frac{2}{2}$, $c. \frac{1}{1}$, $p. \frac{3}{3}$, $m. \frac{2}{2}$, total 32. The cusps of the teeth are more sharply pointed, in accordance with their more insectivorous diet. The family is divided into two genera—*Midas* and *Hapale*—chiefly distinguished by the arrangement of the lower incisor and canine teeth. The former contains the largest members of the group, among which the pinche (*M. œdipus*) may be described as an example, as an opportunity of examining one has recently occurred.

The specimen was an adult male, measuring from the nose to the root of the tail eight inches. The mouth shows no trace of cheek-pouches. There is a distinct, short, but thick, conical uvula, showing that this organ does not so much betoken approximation to the genus *Homo* as is sometimes thought. The tongue gradually tapers from just in front of the attachment of the palato-glossal folds (which is its widest part—four-tenths of an inch) towards the rounded apex. The length from epiglottis to apex of tongue is nine-tenths of an inch. The dorsal surface has a median furrow posteriorly, and the under surface beyond the frænum (which is half an inch from the tip) is deeply grooved in the middle line. There are three large circumvallate papillæ—one median behind, and two lateral in front. The fungiform papillæ are large and regularly scattered over the anterior two-thirds of the dorsum. The filiform papillæ are thick and short, and covered with hardened epithelium. The group of vertical slit-like follicles on each side of the base near the junction of the palato-glossal folds are very conspicuous. As in other monkeys, there is no trace of a median internal fibrous support or "lytta." The sublingual papilla is firm in texture, a quarter of an inch long, with a median ridge on its upper surface, tapering, and slightly cleft at the apex, with its lateral margins indented.

The salivary glands, especially the submaxillary, are very largely developed, almost resembling those of the true Insectivora. The parotid is a triangular mass, between the hinder edge of the masseter muscle and the meatus auditorius externus, broadest and thickest behind and below, where it runs in deeply behind the angle of the jaw. The duct leaves its anterior and upper narrow and thin extremity, and passes forward across the masseter muscle just below the level of the zygoma. The greatest diameter from above downwards of the parotid is six-tenths of an inch, and it is five-tenths of an inch across at its lower part.

The submaxillary fills the whole of the anterior triangle of the neck, only covered by the platysma, and making a visible prominence beneath the skin; below it almost meets its fellow across the middle line, about half-way between the angle of the jaw and the top of the sternum. It is six-tenths of an inch in length, and four-tenths of an inch in its greatest thickness, rounded in front, and with a straight posterior border resting on the anterior edge of the sterno-mastoid muscle. There is a small accessory lobule at the upper end, just under cover of the angle of the jaw, and about as large, in proportion to the surrounding parts, as the whole gland in man. The duct runs forward in the usual course, and opens on the sublingual papilla, about one-twentieth of an inch from its apex, and less than that distance from the middle line. The sublingual glands are comparatively rudimentary—a mere thickening of the mucous membrane on the side of the ridge which continues the margin of the sublingual papilla backwards—of the size of a split grain of rice.

The abdominal cavity is long and narrow, and laterally compressed. The stomach is of an elongated oval form, but differs from that of man and the higher monkeys in the position of the cardiac orifice, which is situated far more to the right, or nearer the pylorus than usual—in fact, about midway between the two ends of the oval—so as to leave a very projecting cul-de-sac or fundus.

The small intestine is twenty-four inches in length, or only three times the length of the body; it is wide at first, and gradually diminishes in calibre as it approaches the ileo-cæcal valve. The duodenum, as usual, passes first to the right, then downwards and to the left, being closely connected with the front of the vertebral column as it passes across it, but soon becomes free and attached by a loose mesentery.

The colon (excluding the cæcum) is ten inches in length. It is disposed very much as in man, but the ascending and descending portions are longer in proportion to the transverse, and there is no sigmoid flexure, the descending colon passing insensibly into the rectum. The cæcum and ascending colon are very free, their mesocolon being only a part of the mesentery which supports the small intestines. The transverse colon at the right end is closely connected to the duodenum and to the stomach by the great omentum. The descending colon has a mesocolon, about three-quarters of an inch in breadth, connecting it to the front of the bodies of the lumbar vertebræ. Three longitudinal bands are present, but not very distinct, and the sacculi are very feebly marked. The cæcum is one inch in length, narrower than the ascending colon, with a rounded apex, and curled in a half-circle.

The most remarkable feature in the liver is the great size of both lateral lobes as compared with the central, each being fully twice the size of the combined central lobes. The lateral fissures are very deep. The umbilical fissure divides the triangular median portion, formed of the combined central lobes, very unequally, the left central being much larger than the right; but as the left lateral is rather smaller than the right lateral, the two main segments of the liver are very nearly equal. The right central lobe is so small that it is entirely excluded from the anterior border, and the right lateral and the left central come in contact (in the natural position of the liver) for some distance in front. The caudate lobe is tolerably large (though much smaller than the right lateral), broadening to the free end, where it is hollow, to receive the right kidney; it passes by a broad base into the Spigelian lobe, which has a small conical prominence pointing upwards and to the right. The vena cava is completely bridged over, so that the Spigelian, caudate, and right lateral lobes are connected superficially over it. The gall-bladder is small, and only attached by its neck to the base of the right central lobe, close to the umbilical fissure, which is not bridged on the lower surface.

Daubenton (Buffon, vol. xv., p. 102) notices the absence of gall-bladder in a member of this family (*Hapale jacchus*); but this was probably an individual variation, as in numerous specimens that have been subsequently dissected by various anatomists this receptacle has always been found.

It was decided, at a meeting held at Owen's College, Manchester, on Friday, to raise a fund of £10,000 in addition to another sum of £10,000 given by Miss Brackenbury for the erection of a suitable Medical school and the endowment of chairs in connexion with Owen's College.

Acupuncture.—No treatment could be more irrational than the indiscriminate use of the needle in all cases of disease, by the Chinese Doctors as well as by quacks. Expertness in this and in feeling the pulse constitutes the skilful Physician. The worst results from this practice have frequently to be chronicled in our Hospital note-book. One came with suppuration of the entire arm and inflammation of the elbow-joint, who had been punctured eight days previously for cholera; and another with the same condition of the leg. The former, after his cure, wished to present me with the most valuable thing he had, and worth a considerable sum of money. From its rarity and supposed efficacy, it is highly valued by the Faculty and the public. The *ken pau*, for such it was, is a canine calculus, held in higher esteem than the same article in the cow, called bezoar (*nieu hwang*). The offer of this rare medicine was declined with thanks.—*Report of the Peking Hospital, by Dr. John Dudgeon.*

ORIGINAL COMMUNICATIONS.

ON THE USE OF THE TRACHEAL TAMPON.

By F. JUNKER, M.D.,
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Last autumn I had the opportunity of seeing Professor Langenbeck, at Berlin, perform several extirpations of extensively diseased superior maxillary bones, in which he adopted Dr. Trendelenburg's plan of plugging the trachea through the tracheotomy wound as a preliminary operation. It was the first occasion on which Professor Langenbeck had resorted to this method, which, however, had been practised in different cases before. Having thus tested its advantages during and after the operation, he commented on it by declaring that in future he would not perform any operation on the face, in which inspiration or deglutition of blood may be apprehended, without using Dr. Trendelenburg's instrument.

The description of the operation of plugging the trachea, the cases which call for it, and correlative comments, will constitute the substance of this paper. In writing it, I shall largely draw from Dr. Trendelenburg's own papers, which he read before the Medical Society at Berlin in 1869 and 1870, and add such remarks as my limited observations on this subject and my experience of diseases of the air-passages and of the operation of tracheotomy might suggest.

Before, however, fully entering on my task, I propose to give a short statement of Professor Langenbeck's operations as far as they bear on the subject of this paper.

The first case in which this celebrated Surgeon used the trachea-tampon was operated upon on November 23, 1871. The subject was a young woman who was suffering from a large recurrent tumour of the size of a cocoa-nut, arising from and involving the whole superior maxillary bone, without, however, perforating the periosteum of the orbital surface. The disfiguration of the face and displacement of eye, nose, and mouth were proportionate with the size of the degeneration. Tumours, but not of the enormous bulk of the present one, had been removed on several previous occasions, the last not many months ago. I regret that, having lost my memoranda on this case, I must write from recollection; I abstain, therefore, in order to avoid unintentional errors, from entering more into the details of the history and of the nature of the disease, which, however, are irrelevant to the purpose of these lines.

Professor Langenbeck commenced the operation by performing tracheotomy above the thyroid gland, the patient having been brought under the influence of chloroform previously. This done, Dr. Trendelenburg introduced his instrument and made the tampon-canula safe, through which the narcosis was continued during the whole time taken up by the removal of the tumour with the superior maxillary bone. The patient being under deep anæsthesia, and the entry of blood into the trachea being prevented, nothing interrupted or interfered with the speedy performance of the operation. The hæmorrhage having been completely stopped, and the wound effectually cleansed from blood and clots, the plastic part of the operation was terminated. The cavities caused by the loss of substance were plugged with dossils of lint moistened with carbolised oil, the threads of which were passed through the nostrils. Now the tampon was removed and a common tracheotomy tube introduced. The patient breathed quietly during the whole operation, and continued so afterwards. She slept soundly during the following night. The highest temperature after the operation was 104° F., but on the fifth day she was perfectly free from fever. The lint-dossils were removed on the 26th (third day after the operation), the sutures on the 25th and 28th (second and fifth days), and the tracheotomy tube on the 28th (fifth day), after which the edges of the wound were drawn together with strips of gauze painted over with collodion to secure their union. The progress of the recovery continued as satisfactory as can be expected in cases of this nature.

The second case, in which Professor Langenbeck operated in a similar manner, was that of an elderly man with a tumour of still more gigantic dimensions, and involving besides the right superior maxillary bone, also the posterior nares and the fauces of the corresponding side. The tumour having already perforated the skin of the cheek, to which it was firmly united, had to be removed with its integument, and a plastic operation therefore become necessary, in order to cover the extensive loss of substance. For this purpose the skin was taken from the right temple and the forehead. In this operation, also, the tampon-canula proved its efficacy by thoroughly excluding the entry of blood and carbolised water (with which the wound was irrigated) into the trachea, and permitted the uninterrupted continuance of the narcosis, which was the more important as the actual cautery had to be applied to the deep-seated portion of the degeneration, which could not be removed with the knife. The other features of the case were similar to the first mentioned, and the progress was satisfactory.

Dr. Trendelenburg,(a) to whom Surgery is indebted for this important new method, is of opinion that the plugging of the trachea ought to be an auxiliary and preliminary to all operations in the larynx, as well as those in the buccal and pharyngeal cavities, in which inspiration of blood may be apprehended.

Cases are on record in which patients have died even during the operation, through suffocation from blood flowing into the bronchi; and it has happened in the practice of some of the most eminent Surgeons that they had been obliged to perform tracheotomy and suck out the blood from the air-passages, often with but negative results, in order to save the life of the patient.

According to Lücke's and Hueter's statistics,(b) deaths from pneumonia, pulmonary œdema, bronchitis, and gangrene of the lungs constitute more than one-third of the fatal cases after resection of the superior and inferior maxillary bones. This proportion will be still increased if the deaths from meningitis after perforation of the skull in deep-seated tumours and from delirium tremens are deducted; and it will become evident that nearly one-half of the deaths after the above operations resulted from secondary acute diseases of the lungs and bronchi. The causes of these fatal results are twofold: Inspiration of blood during, and entry of saliva and pus into the trachea after, the operation. The first occurs more frequently in resection of the superior maxillary bone and extirpation of the tongue, the second more often after resection of the inferior maxillary bone.

During the resection of the superior maxillary bone the head of the patient is more reclined, and the blood finds easily its way from the nasal fossæ and posterior nares into the larynx, which can only be imperfectly protected by sponges. In resection of the inferior maxillary bone the danger of inspiration of blood is not so great. After the removal of the body of the bone, however, when the attachments of the tongue are separated, the deglutition of the saliva will be impeded, and its entry into the larynx facilitated.

In such operations it has been the common practice to commence under the administration of an anæsthetic, and to stop the latter after the external incisions have been made—a method which is fraught with much pain to the patient and considerable inconvenience to the operator. But even these preventive measures will not guard the patient completely against the dangers of blood passing into the lungs in cases of profuse hæmorrhage and great excitement. The dangers of bronchitis and pneumonia, arising from coagulated blood in the air-cells, are increased and assisted by the circumstance that the lungs will be exposed during the following days to the irritating influence of the breath, contaminated by its passage over suppurating and unclean wounds.

Professor Langenbeck adopts the following method of preventing the descent of pus into the trachea in resection of the superior maxillary bone:—He stitches the mucous membrane and the periosteum of the hard palate of the side operated on, when the latter could be preserved, to the mucous membrane of the cheek, thereby separating the nasal from the buccal cavity and facilitating the deglutition of fluids. This method, however, can find only a very limited application, and in very extensive resections, after which the deglutition is either impeded or for some time rendered altogether impossible, every means hitherto adopted have failed to prevent the flow of blood or secretions into the trachea. For this purpose Professor Nussbaum, of Munich, places pieces of linen soaked in oil over the epiglottis, which, however, it is difficult to keep *in situ*, and which, therefore, will not offer the same protection as Dr. Trendelenburg's method, which I shall describe further on, and which has since been also adopted by Professor Nussbaum.

The results arising from the flow of secretions and fluids

(a) Dr. Trendelenburg is Assistant-Surgeon to the University Klinikum at Berlin, and also Lecturer on Surgical Diseases of Children and on Diseases of the Bones and Joints.

(b) Beitrag zur Lehre von den Resectionen. Archiv. f. Kl. Chirurgie, iii. Die Resectionen, 1862-1865, im Kgl. Klinikum ausgefuhrt. Ebendas. viii.

into the trachea are the more dangerous as a complete cleansing of the buccal cavity and a perfect disinfection of the secretions can barely be accomplished. Strong solutions of carbolic acid cannot well be applied in the buccal cavity, and frequent syringing with chlorine water and Condy's fluid will not prevent offensiveness of breath. The patient becomes tormented and worn out by the continuous desire to swallow, which he cannot satisfy. A mass of pus and saliva will accumulate behind the tongue in the region of the epiglottis, which tends to prevent the passage of air through the glottis, and renders the reclination of the head impossible. The patient is obliged to pass night and day sitting up in bed in stooping posture, in order to let the fluids, which he cannot spit out—the movement of the lips being too painful—drain off along the back of the tongue and dribble over the pendent lips. Notwithstanding all endeavours to ease this posture of the head by supporting it with cushions and slings, the patient will become exhausted from want of sleep. The fluids, which he is afraid of expectorating by any effort of clearing his throat or coughing, will finally find their way into the trachea without impediment.

Two objections may be raised against the plugging of the trachea, or against the introduction of an impermeable plug within the trachea:—(1st) The great irritability of the mucous membrane lining the trachea, and its intolerance of foreign bodies which have accidentally entered into it; and (2nd) its great tendency to inflammation after such mechanical insults. But there exists a great difference between the effects caused by an instrument carefully introduced through the tracheal wound, of convenient shape and exerting an equal pressure on the walls within the trachea, and those excited by a foreign body which accidentally finds its way through the irritable glottis. The latter is generally irregular, angular or pointed in shape, and loosely moves within the windpipe, and by dropping upon the bifurcation brings on a violent effort of coughing. Thus it is jerked upwards to the spasmodically closed rima glottidis, and again falls against the point of the bifurcation. In this manner, occluding every outlet, it rebounds between the two most sensitive portions of the trachea, like an elastic ball between two walls, until either suffocation takes place or it becomes impacted within one of the bronchi or in one of the sinuses of the larynx. Each inspiration during the spasmodic closure of the glottis causes an ever-increasing rarification of the air within the trachea, and consequent hyperæmia of its lining membrane, which, by the repeated contact with the irregularly shaped foreign body, becomes injured. A severe catarrh of the air-passages is the natural result of such attacks of dyspnœa. Different symptoms will arise when the foreign body becomes impacted soon after passing the glottis. In the latter case there may be no cough or dyspnœa at all, the catarrh may come on very gradually, and the body may remain impacted unnoticed for weeks and months.

Physiology fully bears out these observations. Experiments on animals have demonstrated that the slightest irritation of the inferior surfaces of the vocal cords and of the mucous membrane, as far downwards as the cricoid cartilage, as well as of the bifurcation of the trachea, causes most violent coughing; whilst the whole tract of the mucous membrane between these two parts and that of the bronchi exhibit comparatively little irritability. In children, after tracheotomy in cases of diphtheria, a feather may be introduced into the windpipe for the purpose of clearing away the mucus and diphtheritic pseudo-membranes without causing cough, except when touching the bifurcation or glottis.

The sensibility of the mucous membrane of the trachea rapidly decreases after this operation, as may be frequently observed. A striking instance of the truth of this fact is afforded by the case of a young woman whom I had the opportunity of repeatedly seeing at the University Klinikum at Berlin. She was herself able to introduce a bougie into the larynx and trachea without experiencing pain or irritation. This patient, when 19 years of age, had tracheotomy performed below the thyroid gland in June, 1869, on account of chronic laryngostenosis. Extensive ulcerations of the epiglottis, stridor, and asphyxia had rendered the operation unavoidable. The power of deglutition of solids was unimpaired, but the act of drinking caused a sensation of choking and coughing. The canula was worn until October, when dyspnœa came on again to an alarming degree. It was suspected that ulcerations from pressure of the canula were the cause of this, and tracheotomy was performed by Professor Langenbeck above the thyroid gland, in order to place the canula into a healthy part of the trachea. The tube, however, could not be passed on account of a stricture of the trachea below the new incision. A minute examination could not be made immediately after the operation, owing to hæmorrhage, which was arrested by plugging the wound with lint. The swelling of the neck, which was considerable during the following days, subsided sufficiently by December 6 to permit careful examination. In order to carry it out under chloroform without danger, Dr. Trendelenburg introduced a small catheter, armed with a tampon, through the old incision, it being impossible to pass the tampon-canula through the callous borders of the fistula on account of its length and curvature. The inflation of the plug caused slight irritation, giving rise to coughing, evidently from its pressure on the ulcerated and tender mucous membrane of the trachea. The anæsthetic was administered through the catheter by means of a funnel-shaped apparatus. A strong callous thickening of the mucous membrane between the primary and secondary incision was discovered. This caused so narrow a stricture that only a very thin bougie could be introduced. A No. 12 bougie, however, could be passed upwards into the larynx. After several attempts to divide the stricture by means of delicate curved bistouries had failed, the trachea having been carefully plugged below the stricture, the latter was treated by Dr. Trendelenburg in the same manner as in the case of the *boutonnière*. The incision was 6·7 centimetres in length, extending from the crico-thyroid membrane to the lower fistulous opening, dividing the anterior wall of the windpipe and the isthmus of the thyroid gland. Owing to the hæmorrhage which followed, the plug was left in during the next twenty-four hours, so that the entry of blood into the bronchi was rendered impossible. The tampon was borne without inconvenience; there was no cough, no irritation or pain below the wound, and the power of deglutition remained unimpaired. Since this time bougies had been passed regularly twice a day, and the patient has herself learned the use of the instrument.

After several unsatisfactory attempts at plugging the trachea above the canula after tracheotomy with sponges, indiarubber balls, etc., Dr. Trendelenburg succeeded in devising an apparatus in which both plug and canula are combined.(c) The tampon consists of a delicate double-walled indiarubber tube of about 3·4 centimetres in length. The walls of this tube are united at their extremities, so as to form a cavity, which is inflated by means of a small tube opening into the external wall. The internal wall closely embraces the vertical portion of the tracheotomy-canula. This tampon, when inflated within the trachea, thoroughly plugs the space between the canula and the windpipe. By letting out the air, the plug again collapses, and the expanded external wall approaches the internal wall. A small indiarubber balloon, with an ivory nozzle, fits into the inflating tube. After inflation, the tube itself is closed by means of a small metal clamp.

The point of the canula is furnished with a raised shoulder of about one millimetre in thickness. A similar shoulder exists above the plug, so that the latter is firmly retained between these two shoulders. By this arrangement the tampon is prevented from slipping when passing through the wound.

(*To be continued.*)

TRANSMUTATION OF QUOTIDIAN MALARIAL AGUE INTO SYPHILITIC QUOTIDIAN AGUE.

By THOMAS READE, M.B.T.C.D., M.R.C.P. Lond., L.R.C.S. Dub.

This case was entrusted to my care in the year 1837, and was the first incident which guided me to the study of an unacknowledged form of disease—syphilitic diseases of the nervous system.

Before I narrate the incidents connected with the patient's record and my own intervention in the disease, I beg to refer to the mind and belief existing in the highest range of Medical men, and participated and followed with universal consent by all regular Surgeons and Physicians throughout the empire. The judgment to which I allude was the authoritative dogma, "That constitutional syphilis left the brain intact and uninjured"—by consequence, the whole nervous system in union with or taking its origin in the brain.

Fully impressed with the certainty and stability of this

(c) This apparatus may be obtained at Messrs. Krohne and Sesemann, surgical instrument makers, 8, Duke-street, Manchester-square, W.

credence, I was summoned, in the year 1837, a distance of about twenty-two miles, to visit a gentleman, aged about 32, reduced to a most abject state of bodily prostration. At the time of my arrival at his residence he was confined to bed. He related to me that for eleven years he had been quartered with his regiment in the Ionian Isles, and enjoyed excellent health. About ten to eleven months before I saw him he suffered an attack of ague, a common effect of the malaria of those isles. It became quotidian, and resisted all treatment. Then he was invalided and sent to England on sick leave. When in London he went through the usual inquiries of Medical boards. Physicians saw him in London, but no benefit. He moved to Dublin—to Belfast—seeing Medical men in each place. Deriving no benefit from any advice, he came to the abode of his family, where I was summoned. He was confined to bed, undergoing eighteen hours of fever between cold, hot, and sweating stage every day—six hours' pause alone for rest and food. With such an adverse balance, his existence was almost marvellous. Nearly all substance had been removed from those parts of the body usually covered with flesh. He had been muscular—in fact a fleshy man.

My first examination led to the exploration of the abdomen for the regular, if not ordinary, structural changes concomitant upon protracted agne, such as are met with in cases from America and the fenny districts of England, but very rarely in Ireland, especially in Ulster. The liver and spleen participated in the general diminished bulk. The omental and tegumentary fat on the belly had disappeared. I could lay my fingers into all the forms of the bodies of the lumbar vertebræ. The abdominal aorta was as palpable as in the last stages of phthisis. He told me he could not stand or walk, on account of swellings at his ankles. I probably expected dropsy at the first. No such thing. Each internal malleolus had thrown out a firmly resisting tumour of the periosteum. On the os frontis was a tumour soft and fluctuating, the size of a large half-walnut, which had been opened in the Ionian Isles by a Surgeon, but had filled since. There was a similar one on the occiput.

My examination being concluded, I announced to him that no trace of malarial agne existed, but a positive certainty of syphilis. This imputation he repudiated with the strongest assertions of its impossibility. I said "I will act under your assertion, but *not* according to my own conviction." I ordered twenty-grain doses of quinine in the pause of the six hours, and diet as generous as he could swallow. This treatment was not without relief for some days, but he then sank back into the previous prostration. I now advised his removal to the town of my residence, which was accomplished in two days, resting on the road. I then commenced, under my daily observation, the effect of arsenic, which I gradually advanced to ten drops of Fowler's solution three times a day. This also, like the quinine, mitigated his attacks; but he became so much worse that I removed him to a seaport town, where there was admirable accommodation for an abode. This was a complete failure, although a district more free from malarious miasma does nor exist. On the fourth morning of my visit, after three nights of torment and without sleep, he refused all food. The catastrophe was drawing hopelessly to a few days' distance, when he made to me the following revelation:—"I wish to tell you something which came into my head during the miserable watches of the night. Just at the time I began to be unwell and out of sorts, I changed my lodgings in the island. I had, unfortunately, made some amatory indications to my landlady. Being accepted, they were followed up by a very reluctant amour. I was now daily visited by a Surgeon of one of the regiments on account of my shake. After some days, I asked him to examine a small sore in the pubic region. He touched it with nitrate of silver. This ministration closed the history of the sore. There never was again any visit with reference to it (the sore)." He added, "I know it can have no reference to my present state, but I thought it right to mention that which only came to my memory last night." I replied, "That information is to me absolutely conclusive, and on it I will immediately act." I summoned his servant, and gave him exact instructions for rubbing in fifteen grains of mercurial ointment on the inside of each thigh on alternate nights. He slept throughout the third night, and ate a fair breakfast next morning. Fourth night sixteen hours' sleep, followed by an insatiable desire for food. The nodes on the malleoli were so relieved that he walked in his room.

The fifth day from the mercurial inunction found him free from all intermittent febrile action, which never returned. He suffered from many of what have been called the accidents of tertiary syphilis for a year, which yielded principally to hydriodate of potash. The fluctuating effusions of the pericranium were rapidly absorbed. I made no reference to this case in 1847 or in 1852.

I considered, in the cases of syphilitic meningitis, I had strained my credit for correct observation sufficiently. For many years after 1852, men honestly told me they believed I had been mistaken, as they had seen no cases to sustain mine; consequently, I waited the growth of knowledge on this subject before I reported a case of such extreme interest, and so far apart in physical and descriptive demonstration, but in essence identical with the cases previously published—all being products of the syphilitic poison, and cured or abated by the same specifics.

Belfast.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

OPERATIONS ON WEDNESDAY, APRIL 24.

There is always an abundance of important and instructive material for the Surgeon as well as for the Physician in the wards of this Hospital, but on Wednesday last, on a visit to the operating theatre, we had the opportunity of witnessing operations upon four cases which presented features of very considerable interest. For notes of these we are indebted to the individual courtesy of the respective Surgeons, as well as to the remarks which fell from them in addressing the students and visitors in the theatre:—

Case 1.—*Excision of the Hip-joint for Disease of Five Years' standing.*

The first operation was the excision of the head of the femur in a delicate strumous-looking lad, much emaciated, with a large head and waxy-looking skin, aged 11 years. The commencement of his illness dated back five years, when he injured his right hip-joint by falling upon it when jumping from a cart. He had been in University College Hospital, and in the Children's Hospital, Chelsea, and has been unable to walk since August, 1870. On his admission, on February 27, 1872, under Mr. Hulke, there was some swelling and tenderness about the joint, pain (referred to the knee-joint), and a sinus discharging pus on the front of the thigh. For a short time he obtained relief and seemed to improve by extension of the limb, but latterly he had been declining in his general health. In performing the operation, Mr. Hulke (as he usually does in excising the hip-joint) made a semi-lunar incision above and posterior to the great trochanter. This he commenced at the mid spot of an imaginary line from the anterior superior spinous process of the ilium to the top of the trochanter, and then continued it above and afterwards along the posterior margin of the great trochanter. This incision was from three to four inches in length, with its concavity looking downwards and forwards. After the soft parts had been separated from the trochanter, and the capsule of the joint laid open, Mr. Hulke made the necessary movement of the limb for turning out the head of the bone. Although no unusual degree of force was used, the femur gave way, snapping in sunder between the hand grasping the bone and the knee-joint. This was temporarily set in two side-splints, and the operation proceeded with without any difficulty, by sawing through the bone immediately below the great trochanter, and then removing it with a pair of Lion forceps. On looking at the portion of the bone excised, it was seen that the cartilage had been completely removed by ulceration, leaving softened carious bone projecting into the joint. Around the margins of the head little papillæ of new bone were studding the surface. Mr. Hulke remarked that these no doubt had been thrown out during the time of the patient's improvement, and had given rise to the greater fixity of the limb at the time when hopes of anchylosis were entertained.

Case 2.—*Hard Cancer of the Breast—Excision.*

The second operation was the removal of a scirrhous tumour from the right breast of a woman, aged 45, under Mr. De Morgan's care. In his remarks Mr. De Morgan stated that the growth had been noticed between five and six months, that pain soon afterwards was suffered, and was most intense during any movement of the arm. Her general health previously had been good, and there was no history of injury to the

breast nor of cancer or phthisis in her family. The tumour was fairly well circumscribed, very hard to the touch, of the size of a walnut, and was situated at the outer side of the breast. The skin over it was faintly dimpled by adhesion, but everywhere over the breast the skin was of very unusual thinness, and the breast-tissue remarkably abundant in quantity. This gave rise to a difficulty in the operation, as extreme care was required in dissecting the integument off from the glandular tissue. After the excision of the breast was completed, the edges of the wound were brought together by carbolised silk sutures, and the whole dressed with Lister's gauze and protective. The section of the tumour confirmed the diagnosis of hard cancer. It presented the well-known firm yellowish-white striated and concave surface, passing indistinctly into the surrounding breast-tissue; here and there were extended across it some lactiferous ducts distended with semi-solid secretion.

Case 3.—*Extirpation of Tumour from the Antrum of Highmore.*

This was a man, aged 65, who was admitted into the Middlesex Hospital, under the care of Mr. Lawson, on March 18, 1872, suffering from a tumour of the upper maxilla. The man stated that the growth first showed itself about four months ago, since which time it has steadily increased. On his admission there was a soft, elastic swelling about the size of an egg over the left upper maxilla; there was a bulging between the lip and alveolus, corresponding to the canine tooth, but there was no protrusion of the palate or closure of the left nostril. An exploratory incision made through the protrusion in the mouth found the antrum filled with a soft growth, which broke down under the finger, and had very much the appearance of recurrent fibroid. The whole of the anterior wall of the antrum was absorbed. Two or three days after his admission an erythematous blush attacked the face, the skin over the tumour became shining and red, then ulcerated, and the tumour from within the antrum burst through. All swelling and œdema of the surrounding tissues now subsided, but the tumour grew with great rapidity, and in another fortnight presented a prominent fungating surface, from which there was a constant discharge. The growth was so rapid that there was a visible increase from day to day.

As there was much of the skin now involved Mr. Lawson decided to try to extirpate the disease partly by cutting and partly by caustics. He accordingly first excised all the diseased structure from the antrum, then freely applied the actual cautery, and lastly lined the walls of the cavity with the chloride of zinc paste spread on pieces of lint. A subcutaneous injection of morphia was then given.

Case 4.—*Amputation through the Condyles for Chronic Synovial Disease of the Knee-joint.*

This patient was a strong and otherwise healthy man, aged 35, under the care of Mr. Lawson. He had been discharged from the Royal Artillery on account of an accident to his knee-joint three years ago, when he received a blow on the knee while at gun exercise, and soon after the joint became so painful and swollen that he was unable to work, and was under Surgical treatment for three months. He remained pretty well from this time till a short while before Christmas, when the joint again commenced to swell. It was not very painful, but he was unable to walk upon it. Lately it has been contracting, and on admission (March 15, 1872) the leg was bent at an angle to the thigh; the knee was much enlarged, and measured fourteen inches and three-quarters, as against eleven inches and three-quarters on the opposite side; there was much wasting of the muscles of the leg and thigh. No fluctuation was detectable, but everywhere a doughy, gelatinous feeling was given. The movements were very limited, and the patella was fixed to the front of the condyles of the femur.

Mr. Lawson amputated through the condyles, employed Teale's flaps, torsion for the popliteal artery, and lint dipped in carbolic oil for the stump.

On examination of the joint after removal, the disease was found to be chiefly seated in the synovial membrane, which was everywhere soft, pulpy, and vascular, and in some places readily breaking down into small gelatinous masses. The crucial ligaments were considerably destroyed, especially the anterior—the portion of this attached to the tibia alone remaining, and this was soft and pulpy, like the synovial membrane. The extreme margins of the articular cartilages were ulcerated, and in the outer articular facet of the tibia was one small spot where the cartilage was nearly ulcerated through, and the bone beneath for about one-eighth of an inch was soft and carious, approaching nearly to the condition of a small abscess. The bones elsewhere were healthy.

Mr. Lawson stated that the case was one altogether favourable for excision of the knee-joint; but as the nature of the two operations had been explained to the patient, he, being anxious to be about again as soon as possible, preferred amputation to excision. A subsidiary consideration also had some influence—namely, as the man was an invalided soldier, who had met with his injury while on duty, he would obtain a pension for life if his leg were lost to him by amputation, but only for a few years if it were preserved by excision.

GUY'S HOSPITAL.

OPERATIONS ON APRIL 26.

[For the following notes we are indebted to Mr. Higgens.]

Case 1.—*Chronic Inflammatory Enlargement of the Testicle—Removal.*

This patient was a healthy adult, 35 years of age. The body of the left testicle was enlarged to about the size of a goose's egg; it was irregular in outline and soft in some parts. The disease had commenced five months previously after a blow. A puncture had been made at one of the soft points, but only blood escaped. Mr. Bryant stated that he had some doubts as to the nature of the swelling, whether it was simple inflammatory enlargement or a malignant growth, but that as the testicle was only a useless encumbrance he had determined to remove it as a matter of expediency. A longitudinal incision was made over the tumour, which was then turned out without difficulty. The spermatic cord was secured by a whipcord ligature passed round the whole of it. The wound was closed by silk sutures. On section the enlargement was found to be of a simple inflammatory character.

Case 2.—*Amputation at Knee-joint for Epithelioma of the Leg.*

Male, aged 30, suffering from epithelioma of the leg. On the front of the leg was a large ulcer, measuring four inches and a half in length by three and a half in width, the edges raised, everted, the surface foul, and covered by offensive discharge. The disease had developed itself on the seat of an injury received twenty years ago. Mr. Bryant first cut a posterior oval flap of medium length, including only the skin; next an anterior flap rather longer, consisting also of skin, the patella being removed. He then divided the soft parts at the back of the joint vertically; the joint was then opened from the front, and the limb removed. The vessels were secured by torsion, the flaps brought together by silk sutures, a piece of dry lint applied, the limb firmly strapped to a short back-splint, and the whole enveloped in a fold of cotton-wool secured by a bandage.

LONDON HOSPITAL.

CASE OF DISEASE OF THE BRAIN—LEFT HEMIPLEGIA—MENTAL AFFECTION.

(Under the care of Dr. HUGHLINGS-JACKSON.)

A PATIENT, 56 years of age. His mind is much impaired, but he has mind enough to frame delusions. A recent fancy is that he wishes to be killed. The most striking feature in his case has been an inability to recognise places and persons. At one time he did not know his own wife; he gave his watch away, and having wandered from home was unable to find his way back. But at the present time he is better, and can name things he sees in pictures, and can read. There seems now to be only a general imperfection of mind, hebetude, and slowness. His wife reports that he has called things by wrong names. Such blunders may arise either from non-recognition of the thing to be named, or from inability to find the name of it.

He has recovered from left hemiplegia—a symptom which, in the vast majority of cases, points to disease of the right side of the brain. In many cases of left hemiplegia there is no striking mental affection. But this patient's palsy was of the rarer kind, in which the leg is more affected than the arm. Trousseau has spoken of the evil omen of cases of hemiplegia in which the leg suffers more than the arm—or, rather, of cases in which the arm recovers, the leg remaining paralysed. He appears to refer—in part, at least—to mental affections. Dr. Hughlings-Jackson supposes that the lesion in his patient is in the right posterior lobe. As there has been severe earache of the right side, and as there is deafness of that side, the lesion is possibly cerebral softening or abscess from plugging of veins. The hemiplegia came on after the

earache, and after the onset of the mental symptoms; it was transitory, lasting about a fortnight.

From anatomical facts Dr. Hughlings-Jackson is led to believe that the "important" part of the right hemisphere is the posterior lobe, whilst the "important" part of the left is the anterior lobe. But it must be remarked that in Trousseau's patient, and in a similar case from Dr. Ramskill's practice mentioned by Dr. Bazire, the hemiplegia was of the *right* side. However, Dr. Hughlings-Jackson thinks that there is more often mental affection, other than affection of speech, in cases of left than in cases of right hemiplegia, and particularly when the leg suffers more than the arm.

That the anterior and posterior lobes have different functions is certain as the convolutions of the two cerebral regions have different structure (Lockhart Clarke). Some years ago Dr. Charlton Bastian expressed his opinion that the posterior rather than the anterior lobes are concerned in the highest intellectual operations. The following statement by Rosenthal is strongly in favour of Bastian's opinion:—"In the case of new growths in the posterior lobes the psychical disturbances are incomparably more frequent than in that of tumours of the anterior or middle lobes."

Dr. Hughlings-Jackson grants that the clinical evidence as to the greater importance of the *right* posterior lobe in mental operations is slender; but the anatomical facts (Gratiolet, Broca, and Barkow) are strong. (These facts he has several times referred to when speaking of the question of the supposed greater importance of the *right* posterior lobes in this journal, August 22, 1868, pp. 208-9; September 26, 1868, p. 358.) And the hypothesis may have at least this value: that it will lead to a careful study of the *kind* of mental affection—when there is any—which attends hemiplegia, especially when the leg is the limb more affected. We have many facts as to the kind of mental affection (aphasia) which so often attends lesions in the region of the *left* corpus striatum, and it is legitimate to inquire if there be not symptoms as *special* from lesions in the neighbourhood of the *right* optic thalamus. The former, when speech is *lost*, consists in an inability to reproduce words and to reproduce them in propositional order; but in cases of loss of speech—in chronic cases at least—there is no difficulty in the reproduction of images of objects. The patient can recognise handwriting, although he cannot read; he can copy print into writing, but cannot express himself in writing; he may be able to play at dominoes or cards. In these operations speech is not concerned; the operation of *another* series of sensori-motor processes is required. Dr. Hughlings-Jackson believes his patient has, or has had, defect in this other series—in the sensori-motor processes concerned in the *recognition* of objects (not in *seeing* objects), and in putting images of things in "propositional order," so to speak. Such a defect, when extreme, would pass as one of imbecility, and in a minor degree as one of "loss of memory." Obviously the investigation of such cases will be very difficult indeed.

Just as we compare and contrast the effects of plugging of the left and right middle cerebral arteries, so we should compare and contrast the effects of plugging of the right and left posterior cerebral arteries. Dr. Hughlings-Jackson, however, has seen but one case of plugging of the posterior cerebral artery; and as both the right and left, and also the right middle cerebral were plugged, the case, although there was mental affection, is not evidence either for or against the hypothesis he has put forward.

In the above remarks spectral illusions are not spoken of; but these, if the above hypothesis be correct, will depend on disease of the posterior lobe. The *disorderly* revival of images bears the same relation to *inability* to revive images as chorea does to hemiplegia—in the former there will be instability of nerve-tissue, in the latter destruction of nerve-tissue.

Births and Deaths in Lyons in 1865-70.—M. Brochard, from an examination of official records and other documents, states that a continuous increase of deaths over births has taken place during the six years 1865-70. During that period there have been 51,168 births (13,205 of these being illegitimate) and 63,942 deaths, or an excess of deaths over births of 12,764. The number of children born dead during these six years was 4128, and that of the children dying during their first year was 15,296. M. Brochard points out the large part which the nursing system so commonly pursued in France exerts in producing this large infant mortality.—*Lyon Médical*, April 14.

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Medical Times and Gazette.

SATURDAY, MAY 4, 1872.

TEACHING OF PHYSIOLOGY IN COMMON SCHOOLS.

Our Medical news "From Abroad" and the letter of our Paris Correspondent tell us of attempts to introduce the study of hygiene into French schools. Many attempts of the kind are made here in schools of various grades, but we believe with unvarying ill-success. Boys can be taught in a general way that certain things are wholesome or otherwise; but then these must be things that they can get some knowledge of by their senses. There is no difficulty in teaching some of the effects of heat and cold; of too much or too little food; of excess in some kinds of food, as fat, sugar, and the like; of a dirty skin and the use of soap; and of stinks, or of close air that smells frowsy and stuffy—for every boy can feel the heat or cold, the evils of hunger, the sickness after sweetmeats, and the dizziness that follows bad drink, and even the sweetness of fresh air.

But the attempt to teach physiology as a science requires in the pupil the knowledge beforehand of a great many other things. To begin with, there is the language—and in language we have to mark a distinction; for the names used are one part of it, and the cast of thought another. The names by themselves are almost wholly taken from the Latin and Greek, and need to be spelt out and explained one by one. Mr. South, some years ago, in his translation of Chelius's "Surgery," tried to use English names, such as *huckle-bone, splint-bone;* but there are many bones, and an infinite number of other things, for which there are no English names, so that the use of a foreign vocabulary cannot be helped. But the *cast of thought* is a still greater difficulty, because, instead of using the English of Cobbett, the writers of popular books on science mould their sentences in a Latinised form, in which the nouns substantive represent abstractions, and not objects. Huxley, even, the clearest writer of all, sins terribly in this way; but as for others, they write in the Latinised style of a young curate's sermon. "At each respiration," says Huxley. "Every time a man breathes," Cobbett would have said, and would have been understood. This is one specimen to illustrate what we mean by the "cast of thought."

But even if the language were clear as crystal, the things which the scholar has to learn of are to him the vaguest abstractions and nonentities. The ideas of abstract carbon, of oxygen, of chemical affinity, of the production of heat and force, of nitrogen, are most difficult to conceive; but then in treating of physiology we have not these elements merely, but their most complex compounds. Moreover, the ideas of quantity and bulk which are used in physiological teaching are inconceivable; the untutored mind can form no conception of blood corpuscles $\frac{1}{3000}$th of an inch in diameter. Without a microscope these things are myths—and how are microscopes to be multiplied for the million?

We are very familiar with the working of a national school, in which the master, encouraged by a Privy Council regulation which allowed physiology to be taken up as an extra subject, set to work with Huxley's "Lessons in Elementary Physiology," a work "intended to serve the purpose of a text-book for teachers and learners in boys' and girls' schools." The structure of the mammalian frame and its various tissues and the chief organs were taught from the book, and shown by means of dead rabbits and such other specimens as came to hand. The boys are of a class far above those in ordinary schools, for most of them become upper servants, lawyers' clerks, and shopmen. In due time the examination came. Some very simple questions were asked on the tissues, the circulation, and so forth; but the answers were so ridiculous that we don't like to quote them. Thus a great deal of time had been worse than wasted. A friend of ours soon afterwards visited the school, and condoled with the master on his failure, and, being interested in education, asked leave to hear the first class read. A reading lesson was chosen from one of the reading-books most in use—it was the story of a tame lion. The boys read pretty fluently, and at last came to a sentence with the words, "when he had completed his ablutions." "Stop!" said our friend. "Tell me, my boy, what do you mean by 'when he had completed his ablutions'?" The boy did not know—nor the next; but a sharp lad below held out his hand in sign that he had an answer ready, and so, being told to speak out, said, "When he'd done his dinner, sir." These were the boys who had been studying elementary physiology!

As things are now, we believe the best plan is to teach such palpable facts as can be vouched for by the senses, and let the science alone till the scholars shall have learned its language, and something of the chemical and physical forces. To attempt to teach physiology without these is like the Laputan plan of beginning to build a house at the top.

COOKERY BOOKS.

We have before us three cookery books—one, very cheap and compendious, written by a Physician who appears to have lived some time in America,(a) and who has written a book in which he professes to tell people how to live on sixpence a day; the others,(b) works of some pretension, intended for people who not only *feed* but *dine*. The second on our list is intended for people who have large incomes, or who would be thought to have them, and teaches the uninitiated how to order a dinner at a Parisian restaurant. Moreover, it is said to be written by the joint labour of a cook and a Doctor, and aspires at the union of feminine delicacy with manly philosophy. The third(c) professes to be written with a view to "extending culinary instruction to the smallest kitchen of the most modest housekeeping." But it might certainly be used as a manual by the *chef* of a duke, a banker, or a brewer. The English and the flavours are alike Gallican, and the bills of fare for dinners, with the wine for each dish, are worthy of the Trois Frères. We will begin with Dr. Nichols's, and may say that without doubt it contains many recipes that may be useful to young housekeepers, and there are many sensible remarks in it; but it is sadly contaminated by Purist and Rationalistic errors.

To begin. The first thing a Physician would desire to see in a cookery book is a good method of preparing beef-tea; a thing which is food and remedy in one, and on which the life of a patient more often depends—in fever, exhaustion, and hæmorrhage—than on almost anything else. Now, we look at Dr. Nichols's book, and with a shudder read what follows:

"*Beef-tea.*—Cut a pound of beef into small dice, which put into a stewpan with two small pats of butter, a clove, a small onion sliced, and two saltspoonfuls of salt. Stir the meat round over the fire for ten minutes until it produces a thickish gravy, then add a quart of boiling water, and let it simmer at the corner of the fire for half an hour, skimming off every particle of fat; when done pass through a sieve. If wanted plain, omit the vegetables and clove; the butter is taken out in skimming; pearl barley, vermicelli, rice, etc., may be served in it if required. A little leek, celery, or parsley may be added."

Where the author can have lived, or what kind of diseases he has been in the habit of treating, is a mystery; but we gratefully believe that there is no workhouse or Hospital in England where such a mess would be given to the sick under the name of beef-tea. This liquid ought to be a simple solution in water of all that water will dissolve of the constituents of muscular fibre; and if prepared in perfection, should also contain in the form of sediment all those albuminous portions which are soluble in cold water but coagulated by heat. For this purpose the flesh should, to begin with, be finely minced, and infused in cold soft water. We need not repeat Liebig's directions, which ought to be like household words, but may say that to begin by cutting the meat into lumps and frying these in butter with clove and onion is enough to make Mrs. Gamp turn in her grave. So much for beef-tea.

In the next place, the author sets out with that cardinal wrong proposition which is the source of most of the absurdities in books of medicine and cookery. He affects to reason *à priori*, forgetting that every true Physician and cook must confess himself empiric, and ought to argue from the results of experiment. "A healthy gastronomy must be founded upon a sound physiology," etc., etc., says our author, just as some Physicians say that successful treatment must be based upon sound pathological principles! If they would but rub their eyes, they would see that sound physiology and pathology must agree with what has already been taught by successful cookery and treatment.

The next point on which cookery and dietetic writers are delirious is brown bread. They wish us to go back to the coarsest unbolted wheaten meal, forgetting that it would be utterly indigestible and pernicious to a majority of townspeople. It may be used as a medicine against constipation, and possibly against bone-softening; but as a general diet it is impossible.

Their next maniacal attack is against suppers. Of course a heavy indigestible meal may be worse in the evening than at noon—it is good at no time; but common sense shows that people who are obliged to work hard and eat little all day are infinitely the better for a good nutritious meal in the evening, whether it be called dinner or supper. Invalids who act by the advice of Dr. Nichols, and abstain from supper, although they dine early, are often kept awake by flatulence, sinkings, and cold feet; and we affirm from positive experience that where no supper is taken a dose of "ginnums and water" is often the substitute.

In the next place, these maniacs rave against all fat articles of food. Pie-crust, which in a respectable house is a nicely made biscuit-like or flaky compound of the finest wheaten flour and the purest butter, offering a resemblance as a solid to that

(a) "How to Cook." By T. L. Nichols, M.D., Author of "How to Live on Sixpence a Day." London: Longmans. 1872.

(b) "Wholesome Fare; or, the Doctor and the Cook: a Manual of the Laws of Food and the Practice of Cookery." By Edmund S. and Ellen J. Delamere. London: Lockwood and Co.

(c) "The Household Cookery Book. Practical and Elementary Methods." By Urbain Dubois. London: Longmans.

milk which the purists take as a type of all food, is universally condemned. "All greasy food," says the oracle before us, "is to be avoided. Fats—and especially animal fats and fats exposed to much heat—are very difficult of digestion, clog the liver, and overload the whole glandular system." Pork in any form is worse than doubtful; salmon, mackerel, and eels, etc., are also tabooed by Dr. Nichols.

We wonder that even people so hoodwinked as cookery and diet scribes cannot see how utterly false and mischievous are these dicta—mischievous, that is to say, if they were acted upon, which, thanks to common sense, they are not. The practical Physician knows that fat in some shape is the only means of combating some of the direst diseases; and if cod-liver oil seem the fat of Medical predilection, others answer the same purpose, though not so well. But if cod-liver oil may be taken by the spoonful, why may not oily fish and pork be eaten? The common tirade, too, against salted and smoked meats may be answered by saying that they are relishes. Half an ounce of ham may enable an invalid to eat five or six ounces of bread, which otherwise he would loathe.

In the next place, there is the thoroughly unpractical nature of many of the rules laid down. "Our food," says Dr. Nichols, "should be pure, healthy in its own character, free from noxious adulteration, adapted to the requirements of the human system, bland, unirritating, not too concentrated in nutriment, nor heterogeneous in mixture," etc. What human being was ever the better for platitudes like these? How is a poor devil to know whether his food is heterogeneous? Is veal-stuffing heterogeneous? Is Dr. Nichols's beef-tea heterogeneous? If not, what is? So, when the author says "No hard work, mental, or physical, should be done for at least half an hour before a meal and an hour after, ... no cold bath should be taken either soon before or after eating," how can a family at the seaside put this rule in force if they want a dip before breakfast and a good healthy walk after it?

The more ambitious work, by Edmund S. and Ellen J. Delamere, which we have included in this notice is free from some of these faults. The formulæ for beef-tea are good, though what Liebig taught is ascribed to a Mrs. W——, and to two or three Physicians whose modesty, we are sure would not allow them to claim what they never invented. Both books concur in condemning the exaggerated nonsense talked about essence of meat, as though 100 grains of nutriment could be more than 100 grains anyhow, or as if the juice of meat could be a substitute for the substance. Dr. Delamere's work takes cognisance of the dietetic value of fat, and is enthusiastic in praise of the flesh of the pig. "The Doctors waste their breath with preaching that his flesh is indigestible, heavy, and laxative. . . . . Everything belonging to the pig is good." Dr. Delamere evidently surveys man and food from a higher and more generous standpoint than Dr. Nichols—in fact, he runs into the opposite extreme of giving formulæ too complicated, expensive, and impracticable. For instance, Brillat Savarin has a well-known recipe for the concoction of a restorative soup, and he makes his recital piquant after his own fashion by introducing the case of a too obsequious husband in a state of complete exhaustion, from a cause that may be guessed at. His soup is made out of vegetables fried in butter, an old cock, sugar candy, and powdered amber. Now, we know well enough that it is only the French who believe that exhaustion can be cured by sugar, and the notion of the virtues of amber belongs to the past generation; so what are we to think of the practical experience and common sense of people who reproduce this foolish and troublesome formula, and call it the "Elixir of Life"?—or of the chemical skill of a person who ascribes the virtues of the soup to the meat being more highly charged with caloric! Cookery books are sometimes given to young ladies on their marriage, and it is quite possible some young wife may ask what it is that Edmund S. and Ellen J. Delamere give cautions about at the end of their description of the elixir. Why did not they give us Brillat Savarin's piquant story of the young couple who had up a cold poulette and wine at two in the morning?

To cook food is an art learned from experience—to reason on organic chemistry pertains to a science that is fluctuating; and surely, when we seek books to learn how to cook, we don't want to be dosed with second-hand scraps of popular food lectures. In fact, just as a treatise on anatomy and pathology would be disgusting at a dinner-table, so disquisitions on chemistry, the exploded twaddle about *heat-producing* and *flesh-forming* articles of food, dissertations on intestinal worms, and quack recipes—"Hooping-cough simply and quickly Cured," "How to Cure Chilblains," etc.—are out of place in a cookery book.

We have left ourselves but little space to notice M. Urbain Dubois. This artist does not give us a receipt for beef-tea but his soups are as numerous as our English religions. His stock-pot, or *pot-au-feu*, made with five pints of water to a pound of meat, with vegetables, and five or six hours' simmering, is doubtless an excellent prescription for a clear and abundant broth which need not be very "succulent," but would hardly do for the sick. His prescription for pectoral broth made with a fowl—the body-bones, pinions, *paws*, and crop, all well cleansed—with marshmallow or althéa-root and pearl-barley, might be worth trying. The fowl is to be covered with three or four quarts of water, and is to be boiled for three hours.

We may conclude with a suggestion which we humbly venture to think would tend to the infinite advantage of the civilised world. It is that, when the Ballot Bill is settled, a measure shall be introduced into Parliament for the erection of an Institution for the especial treatment of persons afflicted with those theories which lead to the exanthematisation, or blossoming-out, or eruption of "Popular Treatises on Diet," "Remarks on the Classification of Foods," etc., etc. The patients admitted should dine at a common table; we should place a distinguished member of the Poor-law Medical Service at one end of the table, and a distinguished Coroner at the other. The inmates should order the dinner in turns, and have full scope for putting their peculiar theories into practice; and they should not be allowed to leave the walls till they had come to a state of unanimity as to the theoretical value and the best practical mode of dealing with food.

THE WEEK.

TOPICS OF THE DAY.

The favourers of the woman's franchise agitation met with a serious check in the House of Commons on Wednesday last. Honourable members who had voted for Mr. Jacob Bright's Bill last year have discovered since that time that the whole agitation is fictitious, that it has been raised and kept up by a few foolish, conceited, querulous women and womanly men for their own purposes, and that it is by no means in favour with the great mass of the sex itself—nay, that it is utterly repudiated by those who most adorn, by their virtues and influence, our English homes and hearths. We have no doubt that, could the woman-Doctor outcry be submitted to the same test, it would be proved to be in reality as utterly contemptible. It may be quite true that half a dozen or half a score of women whom circumstances may exclude from family life want to be Doctors, but we utterly deny that there is one in ten thousand of English women who would prefer a woman to attend them, or who would feel anything but dislike for one of their sex who had gone so far to unsex herself as to dissect the human body in company with men. The fact is that these women-questions have had their origin in the same pestilential moral atmosphere which has produced those pleasant flowers of free love, easy divorce, and abortion-mongering which threaten to reduce American society to a far worse state than Roman was in the time of Juvenal, and compared with which the

rough virtues of our Tentonic forefathers before the introduction of Christianity constituted a golden age.

The length to which fanaticism will carry a party was never better exemplified than by the following quotation from a recent article in favour of female franchise in the *Fortnightly Review*, quoted by Mr. Bouverie in Wednesday's debate. Surely the article must be grave irony. If not, the writer had better turn his attention to enlisting some of our surplus female population for the service of the King of Dahomey—

"Some women are allowed, under the pressure of necessity, to teach, or to write for the press, or, if they have very great energy, to profess Medicine; it only remains to allow all who have the necessary material inducement to enter the Civil Service (where Mr. Gladstone is evidently prepared to let them have clerkships cheap), the army, the navy, the universities, and any other learned or lucrative profession they may fancy."

The writer went on to say—

"Undoubtedly when women have seats in Parliament and on the bench they will also hold commissions in the army, and it may even be surmised that the profession of arms will be rather a favourite with them than otherwise; for military glory has more in common with the aims which they have hitherto encouraged to pursue than any inducements held out by learned or commercial careers. The few cases on record of women who have disguised their sex in order to enter the army offer no criterion as to the number who would do so when the necessity for secresy was removed. The contrary assumption is so much the creation of habit that it is scarcely possible to argue either for or against it. The physical strength of women is the principal difficulty contemplated, but it is obvious, quite apart from the effect of education or training, that the women of some races are taller and stronger than the men of others; and if that consideration appear too remote, it could easily be ascertained how many maids-of-all-work in London work harder than a dragoon. But it is supposed that women will be particularly influenced by the reluctance which we all feel at the prospect of slaughtering our fellow-creatures. Similarly it was held quite recently that they could not—it is still thought in some circles that they should not—cut off babies' legs. Now, to shoot an invader, who may be out of sight, and to cut off a baby's leg are both painful Surgical operations, which no right-minded person would perform except for the benefit of the infant or the fatherland; but there can be no question as to which of the two is most trying to the nerves and harrowing to the sentiments. Unless antiquity—as is possible—was quite mistaken as to the natural instincts of the female sex, it will prefer the science of destruction to the art of healing."

Professor Odling, F.R.S., Professor of Chemistry at the Royal Institution, and Vice-President of the Chemical Society, and Mr. Vernon Harcourt, Lee's Reader of Chemistry at Christ Church, are amongst the candidates for the Professorship of Chemistry at Oxford, vacant by the retirement of Sir Benjamin Brodie.

Dr. Alfred Carpenter, of Croydon, has published a letter in the *Times* of Tuesday last, in which he contradicts the statements recently made as to the bad effects of the Croydon sewage farm on the health of the neighbourhood. He writes—

"Will you allow me to state the following statistical facts, which speak for themselves, and do not require opinions or theories to support them? They have been obtained from the reports of the registrar of the sub-district in which the farm is situated, and which district is in close proximity to three sides of it, the fourth side being the town of Croydon itself. It includes also the Beddington Female Orphan Asylum. The births during the year ending April 1, 1872, were 97, giving a birth-rate of about 33 per thousand; and the death-rate during the same period has been 9 per thousand only. The deaths registered have been 27, and do not include a single case of fever. I have given the statistics for the year just ended, as that is the first time the births have been reported. They have reference to a district in which a large sewage farm has been in operation for nearly twelve years; and, after such evidence, I trust we shall hear no more of the assumed unhealthiness of sewage farms."

A telegram published in the *Times* of Thursday announces the safety of Dr. Livingstone. He is said to be with Stanley, but the name of the place is unintelligible. The news comes from a native source *viâ* Zanzibar.

We publish in another column a list of subscriptions for the purpose of raising a fund as a provision for the widow of the late Dr. Day, of Torquay, formerly Professor in the University of St. Andrews. Dr. Day's services to Medicine render this case an exceptional one. He was prevented by many years of ill-health from making anything more than a very insufficient provision for his wife and family. During this time our readers were indebted to his perseverance and indomitable energy for some of the most valuable scientific articles which have appeared in our pages. We trust that they will supplement the fund that has already been raised for maintaining in a modest independence the widow of so excellent a Physician and praiseworthy a man.

PATHOLOGICAL SOCIETY OF DUBLIN.

THE thirty-fourth annual session of this Society was brought to a close on Saturday, the 27th ult. The specimens presented on the occasion were numerous, and of peculiar interest. They included a case of idiopathic endo-pericarditis, shown by Dr. Johnston; an enormous round-celled sarcoma engaging the right kidney of a boy only 5 years of age, exhibited by Dr. Evelyn Little; the dissection of the very rare luxation of the sternal end of the clavicle upwards, forwards, and inwards, detailed by Dr. Robert W. Smith; a case of general mollities ossium by the same distinguished Surgeon and pathologist; four urinary calculi removed by crushing, presented by Mr. G. H. Porter, Surgeon to the Queen; an example of abscess, resulting apparently from old encysted hydrocele, brought forward by Dr. Barton; a large intestinal cyst which resembled ovarian disease, exhibited by Dr. James Little; and a remarkable specimen of glioma of the brain submitted by Dr. Evelyn Little. In this last case paralysis of the third, fourth, fifth, sixth, and seventh nerves of the affected side had existed during life. The President, Mr. Joliffe Tufnell, delivered a short but impressive address, in the course of which he announced with regret that there had been no competition for the gold medal annually given by the Society for the best essay on a subject of Surgical or Medical Pathology. There was present a very large assemblage of members and of students, by whom the President's remarks were received with rapt attention.

WHAT IS TO BE DONE?

SMALL-POX is rampant in some parts of Ireland, and is spread to a fearful extent by the refusal of persons affected with the disease to go into Hospital. What is to be done in such a case? We cannot fine the person who so refuses as we can the father of a child who refuses to have that child vaccinated. We understand from the *Cork Examiner* that the eminent firm of Sir John Arnott and Co., brewers, of that city, have resolved upon taking a decided step to counteract the hostility alluded to. A list of the *employés*—about 152—has been supplied to the Medical Officers of the different dispensary districts, with a request to report to the firm each case where there is a refusal to send a small-pox patient to the Hospital. This refusal will be visited by the immediate dismissal of the offender. "This," says the *Examiner*, "seems a very rigorous course, and we would much prefer that the people were made to accept voluntarily the aid; but when it is remembered that every small-pox patient kept in a poor, ill-ventilated dwelling is spreading a deadly poison round, the time seems to have come for very strong measures, even measures so strong as this. We cannot afford to have the disease spread amongst us to gratify any prejudices." We agree with our worthy contemporary, who has thorough Irish humour as well as thorough Irish sense. We might ask the *Examiner*, if we wished to be critical, what he means by "the people being *made* to accept

voluntarily"? But it is, no doubt, an Irish phrase well understood in Cork. At all events, it is as easily understood as Lord Castlereagh "turning his back upon himself," or "standing prostrate in the presence of his sovereign."

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The annual general meeting of the above Society was held in the Council-room of the Royal Medical and Chirurgical Society, 53, Berners-street, on Friday, April 26. Mr. Charles Hawkins, V.P., was in the chair. The Secretary informed the meeting he was desired by the President, Dr. Burrows, to express his regret at not being able to take the chair, unavoidable absence from town being the cause. From the statement of the affairs of the Society, it appeared that the available receipts for the past year amounted to £2936 13s. 8d., the grants to £2606, the expenses to £247 10s. 6d., and the total expenditure to £2853 10s. 6d., leaving a balance of £83 3s. 2d. in favour of the Society. During the year 9 new members had been elected, 17 had died, and 10 had resigned or ceased to be members; the number of members at the end of the year being 411—a decrease of 18 on the previous year. Four widows and 7 children had been added to the list of recipients of grants, and 4 widows and 14 children had died or become ineligible for relief; the number on the books being 55 widows and 43 children. Information had been received by the acting treasurer that the Society would benefit by two legacies—one of £200 stock, duty free, left by Mrs. Ann Hammond; the other of £500, duty free, from Mrs. Jane Lyon. The meeting was special to consider the proposed repeal and alteration of some of the by-laws. It was resolved that by-law 15, imposing a fine on members remarrying, should be repealed; also that by-law 68 should be repealed, and a new by-law be enacted in its place, viz.:—"In case of life members it shall not be necessary for such members to have lived two years after having paid a life subscription to render their widows and orphans eligible for relief." A vote of thanks to the Royal Medical and Chirurgical Society for their kindness and liberality in granting accommodation to the Society, rent free, was carried unanimously. A requisition was signed by seven members for a special general meeting, to confirm or not the repeal of the by-laws and the new by-law as resolved at the meeting. The proceedings terminated by a vote of thanks to the chairman.

SEA-WATER IN LONDON.

Besides the proposal to which we referred last week for bringing sea-water to London from Brighton, we understand that a plan has been set on foot for conveying it in lighters from a point sufficiently beyond the mouth of the Thames to secure freshness. The supply thus obtained will be delivered into floating baths situated at convenient and accessible points on the river, and it is anticipated that a salt plunge will be obtainable at so low a rate as sixpence; the water, nevertheless, being entirely changed every other day. The cost of delivering sea-water in this manner into baths situated in the London district is estimated not to exceed 1s. 3d. per thousand gallons.

MORTALITY IN HOLLAND.

We give elsewhere a table, with which our correspondent has favoured us, of the vital statistics of twelve of the largest towns in Holland during the year 1871. It will be useful to compare it with our own Registrar-General's tables for the English towns. The enormous mortality from fever and small-pox are most striking, but it is said that typhoid is more prevalent in the towns under 10,000 inhabitants, and this is ascribed by Dr. Egeling, the Medical Inspector, to frequency of dung-yards in close proximity to the houses.

DIGESTION OF CALOMEL.

In his recent lecture on "Diet and Medicine," Dr. Symes Thompson showed that some drugs undergo a process of solution within the body analogous to that which food passes through under the influence of the digestive juices. With the assistance of Professor Heaton he demonstrated Tuson's experiment on calomel. In one vessel (α) calomel and hydrochloric acid were placed, and in another (β) calomel, acid, and pepsine. After digestion for two or three hours at the temperature of the blood (care being taken that the heat should not rise above 140° Fahr.), the contents of both vessels were thrown on filters. The filtered liquid from the second (β) gave a black precipitate with sulphuretted hydrogen, showing that pepsine had rendered the calomel soluble, while the liquid from the first (α) was unaffected by the gas. This experiment has served to remove much of the difficulty previously felt of accounting for the effect of a salt insoluble in acid, and is of value as showing why calomel does not produce its characteristic effects in cholera and other conditions in which the digestive powers are in abeyance, or when the active ingredients of the gastric juice are wanting.

DR. BRISTOWE ON "PREVIOUS SEWAGE" IN THAMES WATER.

Dr. Bristowe, the able Medical Officer of Health for Camberwell, has issued a report on the water supplied by the Kent, the Southwark and Vauxhall, and Lambeth Water Companies, in which he follows the consolatory guidance of Letheby, Taylor, Whitmore, and Major Boulton, instead of the alarmist tone of Dr. Frankland.

"It must not be presumed," he says, "that the organic matters which are detected in river water come to us in the form in which they first reach the river; it is not the organic matter as it lies on our fields, or as it leaves the pans of our water-closets, which reaches us. Its large dilution by the running oxygenated water into which it passes effects the most important chemical changes in it; so that before long, that which was sewage is no longer sewage, but merely the inert chemical derivatives of sewage—it is no more sewage, in fact, than vinegar (which has been formed from beer) is beer, or than sugar (which has been formed out of starch) is starch still. Dr. Frankland (than whom there is no more determined opponent to the employment of Thames water for drinking) fully recognises this fact, and nowhere ventures to call any portion of the organic matter found in the waters supplied by our Thames Water Companies, sewage: he ventures only to designate a portion of it as 'previous sewage or animal contamination.' Many chemists believe, and I believe also, that he exaggerates the proportion of organic matter due to this cause, and yet he says of it—'by gradual oxidation this animal contamination has been, so far as analysis can show, converted into innocuous inorganic compounds, before the water was submitted to investigation.' You will clearly understand, therefore, that even that water which you were receiving from the Southwark and Vauxhall and the Lambeth Companies, in January and February last, imperfectly filtered though it was, and containing as it did an exceptionally large quantity of organic and other matters, was still not in any proper sense of the term 'merely extensively diluted sewage,' and that still less were you then 'simply drinking the sewage matters poured into the river by all the town and farm drains along its banks.' You were drinking a small amount of organic matter (roughly speaking, perhaps, one grain in 100,000 grains) dissolved in the water, of which a small percentage was doubtless traceable to sewage, and might be said to be due to 'previous sewage contamination,' but which was, I repeat, in no sense 'sewage.'"

A DANGEROUS OPERATION.

A case which excited considerable interest was heard at the Sheriffs' Criminal Court, held at Dundee on Monday. A Surgeon was charged with having pulled out a boy's tooth against his will. He pleaded guilty. It was explained that a number of boys had annoyed the Doctor, and that he seized one of them, took him into his house, and extracted one of his front teeth against his will. The Sheriff fined the accused £1 or seven days. The fine was paid.

SMALL-POX JOTTINGS.

Dr. A. Speedy, in his report last week to the Board of Guardians at the North Dublin Union, says:—"I have revaccinated 1400 persons during the past eight months, a very large proportion of whom had good marks of primary vaccination; yet in these individuals excellent vesicles were formed. Among the above no cases of small-pox have occurred. In a Hospital where there is a class of sixty-five pupils attending, all except five were revaccinated, and these five contracted small-pox; all the others escaped. In Cork-street Hospital there have been 500 cases of small-pox. One of the Physicians informs me that on careful examination he found that not one of these persons had been revaccinated. In the Hardwicke Hospital there have been 600 cases of small-pox, and I find that in this institution there were a few cases of small-pox occurring in those who have been revaccinated. Although revaccination in these cases did not actually prevent the persons being attacked with small-pox, yet it had the effect of modifying the disease; and these particular cases were of a very mild character. There are always a large number of the military stationed in the Royal Barracks, which are in my district. There have been only four or five deaths from small-pox among them, and any cases are generally very mild. You are doubtless aware that all recruits are revaccinated, and this I contend is the reason they escaped so well."——Last week the Medical Officer of Lambeth reported that small-pox had appeared at the "Cripples' Home."——There were no deaths from small-pox last week in the Mile-end Old Town district. ——Only one death from the disease had occurred in the past fortnight in the Limehouse district.——Small-pox is reported to be on the decrease in Kensington. During last week there had been only one fresh case, and no deaths.——Dr. Aldis, St. George's, Hanover-square, reported last week two cases of small-pox, one of which was sent to the Hospital.——Forty-one persons died from the disease in the metropolis last week. In the two previous weeks the deaths had been forty-nine and forty-eight.

SMALL-POX IN DUBLIN.

It has been estimated from sufficiently reliable data that between 7000 and 8000 cases of small-pox have already come under notice within the seven dispensary districts of the City of Dublin. The number of deaths, judging from the Registrar-General's returns, has already considerably exceeded 1000. To meet the distress entailed on the poorer classes by the continued severity of the epidemic, a sum of about £4000 has been collected, and the influential committee, whose selection we announced some three weeks back, are daily engaged in distributing small sums of money amongst the most necessitous of the numerous applicants for relief.

THE MIDDLESEX HOSPITAL CLUB.

The annual dinner of this Club was held at Willis's Rooms on Tuesday, April 30, when the lecturers and members of the Medical and Surgical staff, and a large number of gentlemen who received their Professional education at the Middlesex Hospital, met together under the presidency of Mr. Campbell De Morgan, F.R.S., lately the Secretary. Speech-making is, as a rule, tabooed by the Club, but the usual loyal toasts were given from the chair, and, subsequently, "Prosperity to the Middlesex Hospital Club." The healths of the Chairman (proposed by Mr. Oscar Clayton) and of the Honorary Secretary (Mr. Nunn) were drunk with full honours and with much enthusiasm. The *esprit de corps* of this Club has from its foundation been considerable, and members must be glad to feel that this character is still thoroughly sustained by their old institution, which was never in a more flourishing state than now.

A WOMAN-DOCTOR'S THOUGHTS ON WOMEN-DOCTORS.

Experience bears out our observations on women-Doctors. The following is a plain outspoken narrative, and is from the pen of a lady-Doctor to the *New York Evening Mail*:—

"If the girls were to know my experience," she says, "not one in ten thousand of them would ever attempt to be a Doctor; for I have studied Medicine and some branches of Surgery, graduated with honours seven years ago, practised for five years, and was successful, so far as restoring my patients and building up a large practice may be considered success. But as for collecting bills and getting fees proportionate to the time and services rendered, I was no more successful than most Practitioners; and though I am now healthy and strong I could not compete with young men in the Medical Profession, because of inability to bear overwork and exposure to bad weather, night air, etc. Men who take reasonable care of their health are always well enough to visit a patient; but this is not true of women until they are fifty years old, and never will be true of them at an earlier stage while the human race continues. Having almost killed myself, and known two other lady-Physicians to quite kill themselves by attending to a large Medical practice, I have already given up the Profession two years since, and will never resume it."

The writer thinks even the forlorn hope of authorship preferable to the lancet.

FINES FOR NEGLECT OF VACCINATION.

Opponents of vaccination have shown much zeal and courage, if not much discretion, in their proceedings in the law courts. It has been resolutely asserted by some of their legal friends that a man could not be punished twice for the same offence; and they have accordingly brought a case before the judges of the Queen's Bench. On Thursday an application was made to set aside the conviction of a man who had been twice fined for refusing to have his child vaccinated, on the ground that the offence was one and the same, and that he could not be convicted twice; but the Court held that this view was altogether untenable, Mr. Justice Blackburn stating it might as well be contended that because a man had been fined yesterday for beating his wife, he could not be fined for beating her to-day. Of course this decision will be regarded as most unjust and tyrannous by Mr. Jacob Bright and his friends.

MR. AYRTON ON BATHING.

Mr. Ayrton is well known for his politeness and urbanity. He is not always happy, however, in the mode in which he exhibits them. He has not enlarged views on social or sanitary matters, as the following will show:—A deputation waited on him last week, with the view of obtaining permission for the inhabitants of Battersea to use the ornamental waters in the park for the purpose of bathing, on the ground that it would promote the health and cleanliness of the poorer classes. Mr. Ayrton said—"If a man desired it he could keep himself clean without public baths. He had only to buy himself a tub for two or three shillings, and have a bath at home." One of the deputation here observed that there was often a deficiency of water in dwelling-houses; upon which Mr. Ayrton remarked, "That was a reflection on the vestry, whose duty it was to see that there was a sufficient supply."

TESTIMONIAL TO A SURGEON.

It is with pleasure we notice the recognition, by a number of his friends and patients, of the valued services as a Medical Practitioner of Macclesfield for upwards of half a century, of Mr. Frederick Francis Lallemand, F.R.C.S. Last week this gentleman was presented with a gratifying token of their affectionate esteem for him, in the form of an address accompanied by a gift of 300 guineas. The address, which was handsomely illuminated on vellum, with the names of every individual subscriber appended, was as follows:—"Presented, with a purse containing 300 guineas, to Frederick Francis Lallemand, F.R.C.S., by a number of his friends and patients

in testimony both of the high esteem in which they hold his personal character as a Christian and a gentleman, his honour and integrity in every relation of life; and also of their strong appreciation of the eminent qualities which have distinguished him in the exercise of his Profession for upwards of half a century in this town, his unremitting attention and sympathy in time of sickness, and his readiness at all times to minister gratuitously to the relief of pain among the suffering poor."

CEREBRO-SPINAL FEVER.

Dr. A. W. Barclay, in his report to the Chelsea Vestry, states there is among the deaths one "alleged to be due to cerebro-spinal fever, a disease which may or may not become epidemic among us, but well recognised in Germany and Poland, where it is said to take its rise." Dr. Barclay also stated, in reply to questions, that there had been fourteen deaths from this disease in New York in the past fortnight, where it threatens to become epidemic. The case in Chelsea was the first he had heard of in the metropolis, and he had never met with a case in his private practice. The disease was an inflammation of the brain and spinal cord, together with disturbance of the blood, which produced black spots in different parts of the body. The disease was spreading very extensively in various parts of Germany and Poland.

THE NEW SYSTEM OF MEDICAL RELIEF.

Whatever other advantages or disadvantages it may have, the new system of Medical relief commends itself to the ratepayers on the score of economy. Dr. Wood submitted to the St. George's-in-the-East Board of Guardians last week a return of the extra outdoor Medical relief for the corresponding quarters of this and last year. Under the old *régime* the cost of the relief for the first quarter of last year was £212 5s. 10d.; for the corresponding quarter of this year under the new *régime* the cost had been £10 3s. 7d.—thus showing that by the new arrangement a saving of about £800 per annum would be effected. In reply to an observation, that perhaps some of the cases were merely transferred to the infirmary, Dr. Wood stated that there were quite as many cases in the infirmary last year as this.

COOMBE LYING-IN HOSPITAL, DUBLIN.

The annual meeting of the guardians and directors of this institution was held on Wednesday, April 24. The report was read by Dr. Ringland, sen., one of the masters of the Hospital. From a statistical summary of the practical benefits conferred on a very poor and dense population by this institution, one of the most venerable of the charities of Dublin, it appears that during the year ended February 29 last 342 cases of labour and 55 chronic cases were admitted within the walls, 1209 labour cases were attended at the patients' own homes; the extern dispensary patients numbered 3340; and the cases prescribed for amounted to 10,580. The Hospital thus afforded relief, through the wards, extern midwifery, and dispensary, to as many as 15,526 poor women or children.

FROM ABROAD: DR. DULKLEY ON CLINICAL THERMOMETRY—TEACHING OF HYGIENE IN FRENCH SCHOOLS—PROFESSOR ZEISSL ON THE TREATMENT OF BUBO.

Dr. Bulkley read, at a recent meeting of the Medical Society of the County of New York, an elaborate paper on "Clinical Thermometry," being a systematic record of experience during three years in the New York Hospital; a regular register of the temperature, pulse, and respiration having been kept in 337 cases. Forty or fifty of the most interesting of these were given in detail, with diagrams showing the curves of the three signs. "Each diagram was the record of an actual case, and faithfully exhibited every failure of observation. There were no typical curves made up from the generalisation of many cases, as in Wünderlich's book." The following are the chief points which Dr. Bulkley considers established:—

"1. The body heat is maintained in health, under all conditions, at the uniform standard of 98·4° F. 2. Any constant deviation from this denotes disease. 3. A return to, and continuance at, this standard marks the termination of disease. 4. A single high temperature is important. 5. The changes of temperature in diseases follow definite and known courses. 6. Variations from these typical ranges of temperature in disease are significant, as indicating a disturbing cause. 7. An irregular course is more unfavourable than a uniformly high range of temperature. 8. Different temperatures characterise different diseases and various days of the same disease. 9. Although a high temperature indicates a more severe attack, no heat under 109° can be considered surely fatal. 10. The daily study of the pulse and respiration in connexion with the temperature is of great assistance. 11. When the temperature and general symptoms agree, but the pulse disagrees, the two former are to be relied on. 12. When the pulse and general symptoms agree in indicating unfavourably, the temperature cannot be relied on, if contradictory, unless the improvement in temperature is marked and persistent. 13. When the pulse and general symptoms agree in a favourable indication, a high or rising temperature should arrest attention. 14. All other means of investigation should be used in connexion with the temperature to obtain the greatest benefit from the latter. 15. The continuous daily record of the three vital signs here represented, in the way exhibited, affords much aid in the diagnosis, prognosis, and treatment of disease, by the presentation to the eye of its history in these respects. 16. The systematic record of these three points may assist in determining at some future day the vexed question whether the type of disease is changing, by preserving pictures which can easily be compared."

When the Académie de Médecine paid its New Year's-day visit to the Minister of Public Instruction, and in its address recounted what it had done during the last year, it dwelt upon public hygiene as a subject which had occupied much of its attention. M. Jules Simon, having the full confidence becoming a Minister in the power of instruction, and the unbounded receptivity of French boy-nature, at once pricked up his ears. "Hygiene!" he exclaimed; "an idea just occurs to me, gentlemen, and a capital idea it is, too! We must have hygiene taught in our lyceums and colleges. Do you prepare me a programme of lectures to be delivered to the scholars by the Physicians attached to these establishments." Nothing loth, the Academy appointed a committee *ad hoc*, consisting of MM. Bergeron, Colin, Delpech, Guérard Jolly, and Vernois. In February, M. Vernois, reporter, laid the programme before the Academy for its approval. It consisted of a scheme for eight lectures or "*conferences*," and when we consider that these are to be addressed to lads of the same age as those who frequent our public schools, and who are already overburdened with work, it is a somewhat astounding production. The following are the chief subdivisions:—1st lecture: The influence of atmospheric agents on the health; the principal changes in the air; climates; epidemics. 2nd: The conditions of salubrity and causes of insalubrity of habitations; clothing in relation to age, climate, and season. 3rd: The nature and quality of alimentary substances in relation to ages, temperaments, professions, and climates; adulterations of food; regimen. 4th: Potable waters and their purification; the various forms of fermented drinks. 5th: Hygiene of the senses; sleep and waking; intellectual and manual labours. 6th: Exercise and repose; gymnastics. 7th: Virulent, contagious, and parasitic diseases of man and animals—itch, tinea, rabies, charbon, glanders, etc.; the principal poisons and their antidotes; alcohol; tobacco. 8th: Popular errors and prejudices relating to health: treatment of accidents, such as drowning, asphyxia, hanging.

At a recent discussion upon this report, the Academy struck out the seventh and eighth lectures, on the absurdity of their being delivered to schoolboys being exposed by MM. Chauffard, Bouillaud, and others. M. Bouillaud advised the Academy

to at once tell the Minister that what he sought for was a mere Utopia; but it was resolved to forward the programme of the first six lectures with the Academy's approval. It has been well observed that the best way of teaching the pupils hygiene will be to improve the faulty hygienic conditions of their school-rooms and modes of study and recreation—which, indeed, have been often pointed out as urgently calling for reform.

"The principle that hygiene shall be taught to the pupils in secondary schools being thus determined on," says M. Dechambre (a strong opponent to the visionary project), "it now only remains to apply it in the best possible manner. For our part we remind conscientious Professors that their first duty will be to imperiously recommend to their pupils—(1) to only accept a dietary which according to their humble judgment is sufficiently wholesome and substantial; (2) to refuse to sleep in low and crowded dormitories; (3) to apportion their intellectual occupations to the capacity for work with which nature has diversely endowed them, in order not to expose themselves to those obstinate headaches which are of such frequent occurrence; (4) to interpose a long interval between their repasts and the resumption of their studies; (5) to take plenty of exercise in the open air, etc. If the Professors believe that they should abstain from offering such good councils, they may be assured that the pupils will give them to themselves after they have profited by some of the lectures conformable to the programme on 'alimentary substances and drinks, the principal changes in the atmosphere, habitations, intellectual labour, exercise, and repose.'"

In a paper published in the *Wiener Med. Wochenschrift*, March 9, Professor Zeissl, of Vienna, describes the great advantage which he has derived from what he calls the "abortive and methodical treatment" of bubo and other acute and subacute glandular enlargements of the groin and thigh. "Everyone," he observes, "who has had much to do with such is well aware of the difficulties and sometimes even dangers which they may give rise to, and cannot but be anxious for a means which may prevent their suppuration and its tedious consequences." Engaged in Hebra's division of the Hospital for more than twenty years, Dr. Zeissl was always on the look-out for some such means, and had often, both in private and Hospital practice, derived remarkable benefit from the application of the acetate of lead, as recommended by Behrend and Cooper. In 1869 he was appointed to take charge of the syphilitic wards in the Hospital, some of which had a bad reputation (of late much redeemed) for their sanitary conditions. He soon found that such conditions told sadly on open buboes, which became frightfully gangrenous. The proximity of these wards to the dead-house seemed one cause of their insalubrity; and in order to avoid the contact of wounded surfaces with the infected atmosphere, the experiment was tried of opening and discharging buboes under water, and then closing them with a gypsum bandage. In some cases primary union took place, but in many others the cavity filled again, and the skin covering the abscess became so thinned, in spite of all preventive measures, that at last it had to be opened over a considerable extent, either by cutting instruments or caustics. Every attention to cleanliness and ventilation, etc., the application of carbolic acid according to Lister's and other plans, all failed to secure the prompt healing of such ulcers.

The author undertook no operation upon these inflamed glands without fear and trembling, so that at last he resolved to treat the buboes with lead, which he had found so useful in private practice, and only opening them quite exceptionally. This treatment has now been pursued during two years in the following manner:—When, on first seeing the patient, hope may still be entertained of preserving the skin intact, it is carefully cleansed from all adhering dirt and plaster, and depilated. The patient then goes to bed, and a compress which has been soaked in a solution of basic acetate of lead is applied to the tumour, wetting it as often as it becomes dry. Even at the end of three or four days the skin covering the enlarged gland feels thicker and firmer—tanned, as it were. The fluctuation, which on close examination was at first perceived, either has gradually disappeared altogether or become much less perceptible; and on pressing the tumour with the fingers it is found already to impart a doughy feeling. If the fluctuation on the commencement of the treatment is very plain, or becomes so, a puncture in a perpendicular direction by a pointed bistoury should be made into the thinnest portion of the skin, taking care that the puncture does not become an incision, and is only large enough to secure the gradual and continuous discharge of the pus, which should be aided by moderately firm pressure by means of a compress soaked in the lead, and over which a roller is applied. The bandage also brings the excavated skin into contact with the underlying parts, and favours their union. The replacement of the purulent contents which first flow out after a few days' application of the bandage, by a more serous lymph-like fluid, is always a favourable circumstance. Care must be taken to prevent any of the linen used in the dressing entering into the aperture, as repeated irritation of this kind may easily convert the simple puncture into an ulcer. If the swelling consists of the (so-called) multiple bubo, and a spontaneous rupture has already taken place at one or more points, the following iodine plaster may be advantageously substituted for the lead compress:—Plumb. iod. ʒj., ext. bellad. ℈ij., emp. diach. c. ʒj., ung. elemi q.s. ut f. empl. molle. As long as only a thin lymph-like fluid is discharged through the puncture or spontaneous apertures, and no symptoms of renewed inflammatory action are present, and still more if erysipelas be prevalent, we should abstain from any removal of the skin. But if one or more sources of pus lie deeply under the fascia superficialis, the cavity of the abscess should be laid open, employing the Vienna paste or the knife, with the usual precautions. In many cases a simple incision of the skin will suffice; and the author has met with others in which the excavated skin occupied several inches in extent, conveying the impression that it must perish, and yet the lead application has preserved it and led to its solidification.

In this way, in now more than 100 cases of indolent or acute buboes, whether arising from infection or from mere catarrh, the author has succeeded in preventing suppuration and in obtaining, very often without any puncture, absorption of their contents in the course of from six to ten weeks. Gangrenous glandular tumours are now of the rarest occurrence in the Hospital, if they have not been admitted when already in that state. Just as rare now are those deep ill-conditioned sores, burrowing under fasciæ and sheaths of vessels, with all their dangerous consequences. The dressers and nurses now have to spend much less time over these cases. Professor Zeissl, therefore, is very anxious to make his mode of treatment more known—not that he believes he has made any discovery, for the same means have been employed by Wallace, Cooper, and others. One peculiarity he claims is that of not confining the treatment to mere indolent bubo, but of employing it also in the acute and subacute venereal bubo.

CHOLERA IN INDIA.

It would appear, from the reports received lately from India, that cholera is somewhat increasing. The *Homeward Mail* says that the 22nd Bengal N.I. was attacked on its way to Calcutta, and that one or more deaths occurred in the train before it reached Mirzapore. Cholera, it is also stated, has made its appearance in Indore, and is very bad below the ghauts, on the Khandwa road. Mhow is carefully watched to prevent the disease being carried into that station.

PUNISHMENT FOR DRUNKENNESS IN RUSSIA.—All persons found drunk in the public streets, whatever their position in life may be, are apprehended, and next day are forced to do a day's sweeping in the streets. Strangers are not exempted from this regulation of municipal police.—*Presse Belge*, April 21.

HOLLAND.

Births and Deaths in Twelve of the Greatest Towns in 1871.

Towns.	Population January 1, 1871.	Births (with stillborn).	Deaths (with stillborn).	Deaths in 10,000 inhabitants.	Stillborn.	Ages at Death.					Causes of Death.																Deaths in 10,000 Inhabitants.	
						Under 1 year (without stillborn).	1 to 5 years.	5 to 20 years.	20 to 65 years.	65 and upwards.	Typhus and typhoid.	Small-pox.	Scarlatina.	Measles.	Angina membranacea.	Angina diphtheritica.	Hooping-cough.	Diarrhœa and cholera nostras.	Atrophy, debility, tabes mes., 1 to 14 years.	Phthisis, 14 to 65 years.	Marasmus senilis, 65 years and upwards.	Acute dis. of resp. organs.	Chronic ditto, except phthisis.	Puerperal diseases.	Accidents.	Other diseases.	Unknown.	Typhus and typhoid.	Small-pox.
Amsterdam ...	281805	9596	9682	343	593	2400	1762	738	2786	1401	251	2165	72	115	58	13	71	133	928	69	354	774	1166	55	122	2487	256	8·9	76·8
Arnheim ...	33081	1162	916	226	51	220	174	46	230	145	14	27	9	12	29	6	41	52	117	9	46	90	126	3	9	270	5	4·2	8·1
Dordrecht ...	25359	871	850	335	61	242	141	54	210	142	18	39	...	...	...	3	15	32	142	3	25	61	107	3	13	312	16	7	15·3
The Hague ...	93083	3414	3800	408	190	1066	854	379	830	481	59	1306	1	1	14	5	50	76	212	16	137	214	371	14	31	1065	38	6·3	140·3
Gröningen ...	38254	1374	1571	410	92	303	299	144	506	227	61	227	2	174	12	2	...	20	81	3	57	98	209	3	36	438	56	15·9	59·3
Haarlem ...	30530	1107	1010	330	71	300	147	67	238	187	32	12	1	54	6	1	7	44	144	8	66	127	116	8	9	299	5	10·4	3·9
Bosh	25373	787	1102	434	61	240	220	145	290	146	31	295	7	2	2	...	17	42	78	11	62	57	120	2	15	300	...	12·2	11·6
Leerwarden ...	26105	889	724	277	51	162	89	47	219	156	5	10	3	14	10	3	7	15	71	3	47	84	117	1	15	249	19	1·9	3·7
Leyden ...	39959	1543	1551	388	67	432	350	147	318	237	28	403	...	...	6	1	27	60	176	2	47	121	194	7	19	358	35	7	100·8
Maestricht ...	28840	1019	922	321	49	211	173	111	220	163	31	16	65	...	6	3	...	21	43	4	23	46	122	6	15	459	18	10.7	5·5
Rotterdam ...	123097	4625	5819	456	229	1668	1392	492	1390	598	107	1701	24	3	11	11	39	136	701	45	226	277	556	20	30	1552	51	8·7	138·1
Utrecht ...	60587	2437	2636	435	126	709	472	171	809	349	43	696	3	1	26	18	17	45	240	16	95	138	274	16	17	720	145	7	114·8

REVIEWS.

Anæsthesia, Hospitalism, Hermaphroditism, and a Proposal to Stamp out Small-pox and other Contagious Diseases. By Sir James Y. Simpson, Bart. Edited by Sir W. G. Simpson, Bart. Edinburgh: A. and C. Black. 1871.

Clinical Lectures on the Diseases of Women. By Sir James Y. Simpson, Bart. Edited by Alexander R. Simpson, M.D. Edinburgh: A. and C. Black. 1872.

These two volumes, which complete the posthumous edition of Sir James Y. Simpson's works, are of equal, but of different interest. That which contains Simpson's writings on Anæsthesia is of the utmost value as a record of a very important passage in Medical history. The "Clinical Lectures on Diseases of Women" is a book of no less mark, but its excellence is that of a repertory of practical facts, and of the teaching of an undoubted master in obstetrical and gynæcological Medicine. The one will be referred to by the Medical historian, the other by the bedside student and teacher. With the limited space at our disposal we can only indicate some of the matters which are to be found between the covers of these volumes. But doing this we shall perhaps confer a greater benefit on the reader than if we attempt an abstract of the whole. At least, this will be the case if our brief notice induce him to become the possessor of Sir James Simpson's works. In this age of newspapers and magazines, reviews are apt to take the place of the books themselves. In the majority of cases the readers are gainers by this arrangement, but in the present they would be greatly losers.

The collection of papers on Anæsthesia opens with one of Simpson's pleasant Medico-archæological essays on its ancient history. It is far too much the habit of the Profession as writers on their own craft and learning to ignore all that has preceded the present era. This is one of the great reasons of the ephemeral value that pertains to Medical literature. A Medical author, as a rule, acknowledges no debt to his predecessors, and need expect nothing from posterity. Hence the Profession is constantly being surprised by discoveries which are at least new to the discoverer, and which may continue to be discovered for the benefit of many future generations. This fault was not chargeable on Simpson. Original and intelligent observer as he was, he was no less attached to ancient lore than to modern science; and the facility with which he blended the two together makes him one of the most attractive of Medical essayists. The curious will find a half-hour's treat in the out-of-the-way learning brought to bear on the subject—in the story of the intoxicating fumes of the Massagetæ and the somniferous sponge of Hugo of Lucca, and the mandragora of Dioscorides and Pliny, and the stone called by the ancients *mephitis;* the herb named archimenides, which, being given to criminals, sets them to sleep, "and in their sleep the confession of the fact may be drawn from them much better than by any torture and rack." One prescription in the sixteenth century to annul the sufferings of parturition, Sir James tells us, was to hang the husband up in the next room by his feet till the labour was accomplished!—a preventive measure, certainly. But, leaving these curiosities, we come on the Bigelow controversy, which it will be remembered originated from an extempore speech made by Simpson when he returned thanks to the Lord Provost of Edinburgh for the honour of a burgess-ship bestowed on him by the citizens. Simpson, it appears, did not recount the American claims to the discovery of anæsthetics on this occasion, and was seriously called to account for the omission by Dr. Jacob Bigelow, of Boston. The correspondence is doubtless fresh in our readers' memory, for it took place as late as 1870. It will therefore be sufficient to say that Simpson fully and most readily acknowledged the priority of Wells with nitrous oxide gas, although he got the hint from Sir Humphry Davy, and that of Morton with sulphuric ether; whilst he very naturally defended himself from any imputation of unfairness in not giving the full history of anæsthetic discovery in a speech extemporised in answer to one made by a civic functionary.

The second part of the volume is perhaps the most curious, historically, of any, containing as it does, Simpson's defences of anæsthesia in midwifery and Surgery from religious and other objections. Since December, 1847, when his defence of his discovery from religious objections appeared, what a change has taken place! It is almost inconceivable now that such an answer should ever have been necessary. But it is no less true that Simpson had to brush up Hebrew, and to quote Gesenius, in order to stem the tide of fanatical opposition to his great discovery. Chloroform was affirmed to be "a decoy of Satan, apparently offering itself to bless woman; but in the end it will harden society, and rob God of the deep, earnest cries which arise in time of trouble for help." This was a clerical view of anæsthesia in midwifery. But the Medical opposition which the new practice met with is, from our present standpoint, no less extraordinary. Simpson records that one of the most famous of living Physicians read a paper before a London Professional Society in 1847 on the injurious effects of ether inhalation, and ended his communication with queries as to the *desirability* of removing pain. Mr. Bransby Cooper afterwards affirmed as his opinion "that pain was a premonitory condition, no doubt fitting parts the subject of lesion to reparatory action, and therefore he (Mr. Cooper) should feel averse to the prevention of it." This referred to Surgical practice. In obstetrics the objections were no less curious. One leading obstetrician charged chloroform with inducing patients to commit various indecencies under its influence, and, by omitting the word "old" in an account of a post-mortem examination, gave (no doubt unintentionally) currency to the idea that chloroform inhalation might cause adhesions of the pericardium.

The other chapters on anæsthesia are on the Nature and Power of various Anæsthetic Agents—including chloroform, chloride of hydrocarbon, nitrate of ethyle, benzin, aldehyde, bisulphuret and bichloride of carbon; on the Applications of Anæsthesia in Surgery, Medicine, and Midwifery; and on Local Anæsthesia. These articles, varying in their date, and some of them supplemented by the labours of Snow, Richardson, and others, are of different value; but apart from their intrinsic scientific worth they have a peculiar interest as embodying the opinions of the discoverer of chloroform, and the great developer and improver of the anæsthetic art. The rest of the volume contains the papers and statistics on Hospitalism—work which we believe is destined to bear good fruit in the future—the exhaustive and very curious paper on Hermaphroditism

published in the "Cyclopædia of Anatomy and Physiology," and the Proposal to Stamp out Small-pox communicated to our own columns in January, 1868. Utopian as the last may appear to some, it no doubt maintains the only philosophical and satisfactory mode, in the present state of our knowledge, of combating contagious disease when it makes its appearance. How far isolation may be possible must be determined by circumstances. That it is incompatible with the liberty of the subject may be true, but it is the only proceeding compatible with the safety of a community. Vaccination, when small-pox has made its appearance, is a very valuable adjunct for the protection of a population, but it will not prove sufficient to stamp out the disease without perfect isolation of the sick. This is the gist of Sir James Simpson's argument, and it has been amply confirmed during the present epidemic. We shall conclude our notice of these valuable books in an early number.

(To be continued.)

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, April 23.

THE ASPIRATOR IN SURGERY: RELIEVES RETENTION OF URINE; MAY SUPERSEDE THE LANCET—M. BÉHIER ON THE EFFECTS OF CORROSIVE POISON ON THE ŒSOPHAGUS—A PAINFUL REMEDY—M. RICHET'S CLINICAL LECTURES—THE CONCOURS FOR THE AGGREGATION—CONDITIONS REQUISITE FOR OBTAINING THE "M.D. PARIS."

M. LABBÉ, a young Surgeon and *agrégé* (sub-professor), has been doing wonders with the capillary or aspiratory trocar—the instrument patented by Diculafoy, of Paris. M. Labbé informed me, while on a visit to the Hôpital la Pitié, that he had, the previous evening, punctured the bladder above the pubis of an elderly gentleman who was suffering from retention of urine resulting from an enlarged prostate. This was done with the above-named instrument, and 700 grammes (about 22 ounces) of urine were drawn off at one sitting. Several ineffectual attempts had been made to introduce a catheter, which ended in making a false passage towards the rectum. M. Labbé prefers Dieulafoy's trocar to the other methods in vogue, as being perfectly innocuous, the wound healing immediately. He had performed the same operation several times—both in his nosocomical and private practice, and intends submitting his observations to the Academy of Medicine. A very interesting thesis has been written on the subject by Dr. J. Watelet. In the case under notice, M. Labbé was to relieve the bladder in this way once or twice in the twenty-four hours, according to the urgency of the symptoms; and that he will repeat daily until the wound in the urethra is healed, when he will resort to other means for the removal of the cause of the retention of urine. I may here observe that many Surgeons already predict one great disadvantage in this new method—not to the patients, but to the future generation of Surgeons—as catheterism, which even nowadays is so little confided to students, would run the risk of being altogether put aside. This capillary or aspiratory trocar, intended at first only as an exploring instrument, was not much larger than an ordinary urethra-syringe. This was gradually increased in size, and was then employed for emptying large abscesses and cavities containing liquid. M. Collin, successor to Charrière, has still further improved the instrument, in such a way that it may be used not only for emptying abscesses and cavities, but for washing out or injecting these, and it is of a size containing from 120 to 160 grammes that these operations may be performed without deranging the instrument. This new trocar is, I think, destined to render great service both in Medicine and Surgery; and it struck me that it would be preferable to the ordinary lancet in venesection, as the risk of air entering the vein is *nil*, in which case the needles would of course have to be made a little thicker, so as to have a good and uninterrupted flow, and the ligature above the elbow may be dispensed with.

Since the reopening of the School of Medicine yesterday week, the clinical lectures have also been resumed. M. Béhier, Professor of Clinical Medicine at the Hôtel-Dieu, in his first lecture enlarged upon the advantages of paracentesis in purulent or other collection of fluid in the chest, and spoke in great favour of the capillary trocar. He entertained his hearers with a most interesting case, of which the following is a summary:—A patient, who is still to be seen in his ward, was admitted about the middle of February last, reported to have swallowed some corrosive substance. The man, who is about 28 years of age, being an engraver, had a quantity of different acids in his possession, and after some family quarrel determined to put an end to himself, and swallowed about half a small wineglassful of a mixture of pure nitric and sulphuric acids, having previously mixed the draught with his finger. As he was in great agony Medical aid was immediately sought, and he was attended by a Practitioner in the neighbourhood, who administered an emulsion of milk and carbonate of magnesia in the proportion of thirty grammes to a litre. He was then taken to the Hospital, where this treatment was continued for some time. The learned Professor entered into the *modus operandi* of this mixture, which, for obvious reasons, was to be preferred in these cases to the simple watery solutions of other alkalies. The patient was admitted with the usual symptoms of corrosive poisoning, vomiting being the most urgent, the matter rejected being tinged with blood. This has continued up to this date with gradually diminished intensity, for the relief of which, and for the burning in the throat and stomach, morphia was epidermically employed. Deglutition is still extremely difficult, the patient being unable to swallow anything but liquids. He takes nothing but milk, and for the stricture of the œsophagus, one of the usual consequences of this form of poisoning, an œsophagus tube was attempted to be passed, but failed; and now a medium-sized gum-elastic catheter is daily introduced, not for injecting food, but simply to keep the passage patent. M. Béhier was afraid the time had not yet arrived to try dilatation, as the cicatrices would not be sufficiently strong to resist the slightest force. The patient is gradually wasting away, and must soon die from starvation unless more solid food be taken or administered in any other way. I must not forget to mention that the forefinger of the right hand, with which the patient mixed the fatal draught, was simply vesicated, and that very superficially, and is now well.

M. Béhier is one of the most practical Physicians of Paris, and a very agreeable and able lecturer; but, as he himself exclaimed at the bedside of a patient in the female ward, to whom a day or two ago he applied the actual cautery for an arthritic affection of the knee, he would make but a poor Surgeon, as he was not constituted for one. I noticed that while he was branding the poor creature, who stood it most bravely, he became ghastly pale, and almost let the heated iron drop from his hand.

On Saturday M. Richet, who has succeeded M. Laugier, deceased, at the Hôtel-Dieu, began his course of clinical lectures with the past history of this ancient Hospital, and by paying a just tribute to the memory of those of its deceased officers who by their talent and skill had earned a world-wide reputation. His remarks were confined to his more immediate predecessors in the chair of Clinical Surgery; and, commencing with Desault, he spoke in the most eulogistic terms of Dupuytren, Roux, and lastly of Laugier, of whom he gave a biographical sketch. He here also mentioned the name of Bichat, who, though not a Surgeon, had rendered as much service to Surgery as he did to Medicine by his well-known writings. Laugier, he continued, became Professor by competition, which, although it did not always produce the best men, ought to be encouraged as an incentive to those who aspire to a certain position; and even when they fail they create a name for themselves—for example, Lisfranc.

After this introductory lecture, M. Richet made a few remarks on a case of amputation he was about to perform on a patient who was suffering from disease in the ankle-joint, which, he said, was of a strumous nature, involving the astragalus and the articular portion of the tibia. There were sinuses leading in all directions, from which issued a sanious discharge, which was draining the man's constitution. He was afraid, from the patient's appearance and a cough, that there were tubercles in the lungs, but could detect none of the usual physical signs. M. Richet attributed the cough to the irritation set up by the disease. The patient, who was a young man of about 28, and of a delicate frame, was then placed upon the operating-table, and having been chloroformed, amputation was practised immediately above the malleoli. An anterior and posterior flap were formed, the latter a little longer than the former, which M. Richet preferred to the other methods, as it afforded a better covering to the sawn ends of the bones. The arteries having been tied, the stump was then put up with straps, and the whole covered with cotton wadding. The patient is doing well.

The *concours* for the *agrégation* (sub-professorships) began

on Friday, April 19, and the following is a list of the candidates, with the subjects of examination affixed to their names: —M. Laborde, *De la Malignité;* Bergeron, *Affections Catarrhales Aiguës;* Beaumetz, *Myélite Aiguë;* Gouraud, *Des Crises;* Damaschino, *Etiologie de la Tuberculose;* Hayem, *Hémorrhagies Intra-rachidiennes;* Duguet, *Apoplexie Pulmonaire;* Lancereaux, *Parallèle de la Maladie Expérimentale comparée à la Maladie Spontanée;* Dieulafoy, *De la Contagion;* Fernet, *Du Tremblement;* Rathery, *Pathogénie de l'Œdème;* Rigal, *Pathogénie des Névralgies;* Lépine, *De la Pneumonie Caséeuse*—all most interesting subjects, which will be submitted in the form of theses and discussed publicly among the candidates themselves in the above order, in the great amphitheatre of the school, and in the presence of a board of examiners composed as follows :— M. Tardieu, President; MM. Hardy, Gubler, Vulpian, Jaccoud, Chauffard, and Roger, members.

It may not be uninteresting to your readers to know the conditions under which the Sub-Professorship of the Faculty is obtained in France :—

The subjects of examination, which are written on slips of paper and put into an urn, are chosen by the candidates themselves, who, being Doctors of Medicine or Surgery, should inscribe their names two months at least before the day fixed for examination, with a statement of their services and the works of which they are authors, depositing a copy of each in the secretary's office. There are two series of examinations to which the candidates are subjected—*épreuves préparatoires* and *épreuves définitives*. The former consists of a written composition on a subject in anatomy, the same being addressed to all the candidates; then each in his turn is to deliver a lecture extempore on a Medical or Surgical subject, according to his candidateship, which lecture should last at least three-quarters of an hour, to prepare which the candidate (shut up in a room) is allowed only an hour. Here those who have failed to satisfy the examiners are rejected, and those left are allowed to proceed with *les épreuves définitives*, which consist of a clinical lecture, also extempore, to be delivered by the candidate, which, as in the first instance, should last at least three-quarters of an hour, followed by a thesis, which is discussed as above described. Thus, you see, the test for the Sub-Professorship is rather a severe one, and its owner now becomes eligible for the office of Professor, which, however, he can only obtain by vote among the other Professors, and he must have distinguished himself as an author or in some remarkable manner. You are aware that it is in contemplation to restore the *concours* system for the Professorship, which was abolished under the Empire; but the subject is still in abeyance, as there are arguments for and against it which I cannot enter into here.

The Paris M.D. seems very much sought after just now by British subjects, as I am told that applications are daily received for information as to the conditions of the examination. I happened to be in the Secretary's office one day, when the Dean came in with one of these letters, and he gave orders once for all that an answer be sent to all foreign applicants to the effect that they will be exempted from the preliminary examinations called *de fin d'année*, but that they will have to pass the other five called *examens de réception pour le Doctorat*," of the subjects of which, with your permission, I hereby submit an outline for the information of intending candidates: —(1) Anatomy and Physiology, with Dissection; (2) Medical and Surgical Pathology, with Operative Surgery on the Dead Body; (3) Natural History, Physics, Chemistry, and Pharmacology; (4) Hygiene, Forensic Medicine, Materia Medica, and Therapeutics; (5) Clinical Medicine and Surgery, and Obstetrics (partly written and partly *viva voce*)—to be wound up by a thesis, printed at the expense of the candidate, on a subject chosen by himself in Medicine or Surgery, and on which he will be examined. The whole should be passed in French at different periods, at the convenience of the candidate. The fees amount to 1272 francs and 50 centimes, or about £51 in English money. I heard the Dean say that, as far as in him lay, he would prevent foreigners obtaining permission to practise on French territory without passing the required examination, as being altogether unjust to other parties.

It is, perhaps, not generally known that M. Jules Simon, the present Minister of Public Instruction, is a Doctor of Medicine as well as an academician, and that many of the higher appointments, even non-Professional, are held by Medical men; the present Director-General of Posts is a Doctor, and the Chamber of Deputies count twenty-seven—a thing never before known in the history of other Governments.

The weather is still chilly and inclined to rain, and although Paris keeps free from epidemics, pulmonary and throat affections continue to be the prevailing diseases. Measles are also somewhat on the increase, the disease affecting adults as well as children. The trees are covered with leaves, and the market is full of fresh vegetables; asparagus in abundance, and cherries and strawberries already grace the fruit-stalls.

A subscription dinner was given by some members of the Faculty on the 19th inst., to celebrate the anniversary of the inoculation of cow-pox in the human subject, which was for the first time practised in Paris on April 19, 1800.

M. Sédillot, the eminent Surgeon and Professor of the Faculty of Strasburg, offers himself as a candidate at the Academy of Medicine, in lieu of M. Laugier, deceased.

AUSTRALIA.

Melbourne, Victoria, January 2.

The Van Hemert Case—The Diphtheria Commission—Spiritualists in Victoria—The Melbourne Hospital—Victoria Health Officers—Victoria Medical Board.

The Profession in this colony has been stirred to its greatest depths for some weeks, in consequence of the verdict given in a trial in the Supreme Court, on November 20, 1871, against Mr. Van Hemert, a Surgeon in extensive practice at St. Kilda, near this city. The action was brought by an old woman, aged about 60, named Turner, and the circumstances were briefly these:—On October 11, 1870, she experienced a fall, and Mr. Van Hemert was called in to attend her. He found a good deal of contusion, and some extravasation of blood about the knee, but no evidence of fracture. He attended her for about six weeks, and repeatedly examined the limb, always with the same negative result as regarded any injury to the bone. On November 15 evidences of intra-capsular fracture of the neck of the os femoris showed themselves, and a splint was applied, which the patient obstinately removed several times; and on the 19th she insisted upon calling in another Medical man. Mr. Van Hemert was dismissed, therefore, and a Mr. Crooke was consulted, and he brought with him Mr. Beaney, who has recently been notorious by the publication of two books on Syphilis and Spermatorrhœa, and their advertisement throughout the colonies. These declared that the fracture occurred at the time of the accident, and that, as it had not been then discovered, the patient had in consequence been crippled. The action followed as a matter of course. At the trial, both recognised authority and personal testimony were brought to shew that fractures of this description were frequently difficult to discover, and that they were nearly always productive of permanent lameness. Nothing, in short, could be clearer than that all the circumstances pointed to the possibility of an incomplete intra-capsular fracture on October 11, and its completion, and therefore recognition, on November 15. But the judge, unfortunately, informed the jury there was no need for the patient to have been of necessity crippled. The jury decided, therefore, for the plaintiff, with damages £230, which, with expenses, brought up the sum to about £400. A meeting of the Medical Society was at once called to consider the case, and a series of resolutions agreed upon expressive of sympathy with Mr. Van Hemert. A few days later a larger meeting of the Profession was held, and active steps were taken to organise a subscription to reimburse Mr. Van Hemert for the expense to which he had been subjected. No question ever occasioned such unanimity in the Profession in this colony as the case of Turner *v.* Van Hemert, and it has proved for once that there is an exception to the adage of Doctors disagreeing. The sympathy with Mr. Van Hemert, however, is by no means of a merely personal kind. It is simply the expression of a protest against an injustice from which any member of the Profession at any time may suffer.

As to the part taken in this action by Messrs. Crooke and Beaney there is but one opinion. They are condemned, as a matter of course, on all hands. Nobody, however, is very much surprised.

The Committee of the Melbourne Hospital have agreed to recommend to the contributors the appointment of two additional Assistant-Physicians, and it is probable that the recommendation will be adopted. Already several candidates are prospectively in the field, and the most likely of these are Dr. O. V. Lawrence, who for some time has been the Senior Resident Medical Officer of the Hospital, and Dr. Wigg, the Pathologist and Curator of the Museum. It is likely that they will both be successful.

At the Geelong Hospital some curious changes have been made by the Committee. They have appointed their Non-

resident House-Surgeon—who up to the date of this change has been absurdly styled "Resident"—the Non-resident at a salary of £300 a year, with unlimited liberty to practise privately, and they have given him an Assistant Resident at £200 a year, who is also to do the dispensing, but who on no account is to engage in private practice. They have in fact altered their regulations to suit their circumstances, as it seemed impossible to change their circumstances to suit the regulations. Meanwhile another of the honoraries has resigned, and it is said the remaining one contemplates taking a like step; so that Mr. Reid will really be what he has always aimed at being—the autocrat of the place.

Of other recent appointments the following may be taken as a summary:—Dr. Haig has been appointed one of the Physicians to the Alfred Hospital; Dr. Neild, Consulting-Physician to the Children's Hospital; Mr. James, Consulting-Surgeon to the same charity; Dr. Fishbourne, Resident Surgeon to the Ararat Hospital; and Dr. Lawrence, Demonstrator of Anatomy in the Medical School of the University.

The Medical Society has recently revised its rules, and a somewhat important change has been made in the rule defining the functions of the Committee, which has been constituted a sort of court of ethics, to which all questions relating to matters of this kind are to be submitted. As such cases are constantly arising, it is felt that this change is one out of which much benefit may come.

February 1.

A considerable ferment has been occasioned in the Profession here in consequence of the appointment of a Commission by the Government to investigate the subject of diphtheria. Now and then, in certain of the up-country districts, the disease shows itself somewhat severely. The general mortality from diphtheria, however, is not excessive, and it is the rule for the disease to yield to well-directed treatment. But because a few alarmists have worried the Government, and written sensation letters and paragraphs in the newspapers, a Commission has been granted. The majority of the men who have been appointed upon it, however, even if the Commission had been required, would have been fatal to its utility. Instead of picking out the few scientific men there are in the Profession, the Government have selected them according to any principle but that of eligibility, and they have capped the climax of unreason by including in the number a homœopath, one Dr. Günst, who has a hydropathic institution, and who publishes, at fitful intervals, a homœopathic journal, in which he abuses the Profession generally, and gives extracts from European homœopathic literature. It appears that this man, who apart from his homœopathy is but a shallow creature, has worked himself into favour with one of the members of the Government; *ergo* his appointment. The homœopaths consequently have raised a loud cry of exultation, and as the Government lately subsidised their dispensary, they are in high spirits at the declared progress of their system. I think I mentioned, in a former letter, that two of the newspapers in this city were homœopathy-bitten, so that the doings of the Hahnemannic disciples in this part of the world are extensively made known. It is only right to state that Dr. Motherwell and Mr. Wilkins, who were nominated on the Commission, have declined to act in consequence of the inclusion of Dr. Günst in it. And speaking of the support given by the newspapers to homœopathy, I am reminded of some remarks in your issue of November 11, relative to the opinion of the *Melbourne Herald* on Medical coroners. In explanation of the foolish virulence which characterised the observations in the *Herald*, it is only right to tell you that, at the time those remarks were published, the editor of that paper was a homœopath, who, having applied to the Medical Board to have registered a more than questionable American diploma, and having been refused, and subsequently having been prosecuted and fined for practising without a licence, took to abusing, individually, the members of the Board. Of this body Dr. Youl, the city coroner, is an active member, and against him and Dr. McCrea, our most efficient chief Medical officer, the silly spite of this disappointed homœopath was continually directed—"Hence these tears." It is generally admitted that the rule of Medical coronerships in Victoria has been an undoubted success. Now and then an incompetent Medical witness, who finds his ignorance exposed, commences to exclaim against Medical coroners; but the lay-public, in the main, cordially approve of them. And to show what very incompetent Medical witnesses are to be found in this part of the world, it has twice happened of late for such witnesses, in describing the appearances in an autopsy of a new-born child, to speak of a "large morbid growth" behind the sternum! They had made the acquaintance for the first time in their lives of the thymus gland! It may be reasonably asked, Who but a Medical coroner, in such a case, could detect the ignorance of the witness?

Another little ferment in the Medical world just now is the allegation that two of our leading Medical men, who have spiritualistic proclivities, treat their patients according to the instructions obtained from mediums. A bookseller, who deals largely in spiritualistic literature, and who was formerly a grocer, is, it is said, making a fortune by his professed ability to diagnose disease by the examination of a patient's hair. That an ex-grocer and present bookseller should be an impostor and quack-salver is nothing so wonderful; but that this man should be consulted by two leading Physicians is a little startling. I myself know of no facts in proof of this allegation; but that it should be the current topic of conversation is suggestive of some basis of truth for it, and I am bound to confess, also, that it is generally believed. A rather good story was lately in circulation about this bookseller-medium. The hair of a delicate young man, suffering from aneurism of the aorta, was sent to him for examination. The hair was very fine and silky, and the medium pronounced it to be that of a woman suffering from uterine disease!

Mr. Girdlestone, the city Health Officer, has initiated a movement for the establishment of a Health Officers' Association. The project has been warmly taken up, and it promises to be a success. Such an association is much needed here, where sanitation is a subject in almost everyone's mouth, from the comparatively imperfect provision there is in respect of hygienic needs.

At the annual meeting of the contributors of the Melbourne Hospital on the 31st ult., it was decided to increase the staff by the appointment of two additional Assistant-Physicians. I think I previously mentioned that this alteration was in contemplation, and that several candidates were already in the field. Of these, by far the most likely are Dr. Lawrence, the present Senior Resident Physician, and Dr. Wigg, the Hospital Pathologist. The resident staff has just undergone some change by the election of Drs. Gillman and Hinchliffe in place of Drs. Moloney and Lyttleton, who were somewhat hastily dismissed by the Committee.

March 1.

The Diphtheria Commission, of which I made mention in a previous letter, has at last been gazetted. It consists of Dr. McCrea, the chief Medical Officer, who sits unwillingly upon it, but who has no option in the matter on account of his official obligations; Dr. Günst, a homœopath, hydropath, etc.; Dr. Lloyd, a suburban Practitioner, whose claim to be a scientific commissioner is derived from the circumstance of his being the principal conductor of a Medical publication; and Mr. David Boswell Reid, the anomalous House-Surgeon of the Geelong Hospital. To complete the absurdity, it is said that the secretary to this precious Commission is to be a person named Hickson, a homœopath, who has been twice prosecuted for practising without a licence, but who has an American degree which the Medical Board has long refused to register. With Dr. McCrea much sympathy is felt, for he has long been the object of abuse both of Lloyd and Hickson, the latter person having been for some time connected with the *Herald*, an evening journal, the proprietors of which permitted this man to gratify his personal spite by writing abusive articles against Dr. McCrea, as President of the Medical Board. Dr. Günst being a homœopath, and the proprietor of a hydropathic Hospital, it is not surprising that Dr. Motherwell, Dr. Day, Mr. Wilkins, and Mr. Thompson should have refused to be associated with him. The respectable portion of the Profession are unanimous in the feeling that the Government have offered a marked affront to them in the appointment of this Commission. There never has at any time been any need for such an inquiry, and if there had been they have gone the wrong way about to effect it.

There has been another disturbance at the Melbourne Hospital in connexion with the resident staff. Dr. Bradford, one of the House-Physicians, having submitted a doubtful epileptic case to the galvanic battery test, was accused of cruelty, and the matter made the subject of inquiry by the Committee. After a prolonged investigation it was decided that, though Dr. Bradford had not acted improperly in using the galvanic battery, he had not comported himself with becoming dignity in using vehement language to the persons who accompanied the epileptic. As these persons were women, and as they gave the freest possible licence to their tongues, the temptation to use powerful terms of remonstrance with them was very considerable. One of the women told Dr. Bradford that, being the paid officer of a public charity, he was only a pauper him-

self, and therefore the servant of the patients. Human nature is hardly equal to feminine objurgations of this kind.

The Health Officers of the colony have organised themselves into an association. At the last meeting, Mr. Girdlestone, the City Health Officer, read an instructive paper pointing out the defects of the Health Act. It is felt that if only the objects of this association are properly carried out very much good will result; for though we have a Health Act fairly framed to meet public requirements in respect of hygiene, there is very little real desire on the part of the authorities to carry it out. The position of Health Officers, moreover, is in every way objectionable. They are underpaid and overworked, and a great deal of responsibility cast upon them, and yet they are continually blamed because the purposes of the Act are defeated. The wonder is that such an association, therefore, has not been organised long ago, and much is expected from the movement.

A vacancy has occurred in the Medical Board through the death of Dr. Stewart, and some curiosity is felt as to who will be selected in his place. The last two vacancies were filled up with a ludicrous defiance of the claims of the leading members of the Profession, and entirely from political or personal motives; and it is by no means unlikely that this rule of political eligibility or personal friendship will again be observed. To those who know of what materials Australian Governments are composed, this preposterous ignoring of the rights of the really eligible is not surprising. The same spirit of contempt for what is deserving of recognition was observed some time ago, when the vacancies in the Board of Health had to be supplied. The choice, in one instance, fell upon a Medical man whose recommendation consisted in the circumstance of his having a great many club-patients, and in having been several times insolvent. At least, there was nothing else to entitle him to conspicuous recognition.

GENERAL CORRESPONDENCE.

THE ROYAL ORTHOPÆDIC HOSPITAL.

LETTER FROM MR. B. E. BRODHURST.

[To the Editor of the Medical Times and Gazette.]

SIR,—In commenting upon my previous letters, Lord Abinger has failed to understand the statement they contained. Upon March 13 the annual court of the Orthopædic Hospital was immediately followed by a special court. It was to this special court alone that I referred as that in contemplation of which the thirty new governors were made whose subscriptions were forwarded to the secretary by me. I had nothing whatever to do with making the eighty-one new governors who, Lord Abinger says, were added immediately prior to the second special court, held on April 8, when his lordship tried, unsuccessfully, to reverse the previous vote. I see, however, that amongst those new governors appear various members of his lordship's own regiment and of his club.

With regard to my personal action at the courts, I did not vote at either of them, although both Mr. Tamplin and Mr. Adams did. It is almost too ridiculous to deny that I "betrayed satisfaction by the action of my feet"; but it is not true, and I do deny it, as his lordship has thought it worth while to make the statement, and you have allowed it to appear in your columns.

It is naturally a source of satisfaction to me that Lord Abinger's opinion of my "Professional capacity" should be such as to lead him to be willing to concur in my appointment as full Surgeon to the Hospital, though the value of this testimonial is, perhaps, somewhat diminished by the mistake his lordship evidently makes of thinking that my promotion would make any change in the nature of either my duties or my relation to my patients. I am, &c.,

Grosvenor-street, May 1. B. E. BRODHURST.

GENERAL PRACTITIONERS AND CHEMISTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I think young men who are entering the Profession ought to think carefully of the future status which may be their lot—that is, supposing that they propose to live by their Profession soon, and to join the great mass of general Practitioners, and not to enter the army or navy or official life, nor yet to join the throng that hangs on to every Medical school in the hope of lectureships and consulting practice.

The British public, for all minor and incipient maladies, has the custom of going for advice to some Practitioner who will supply them with the requisite medicine at one transaction. In every community, too, the vast majority abhors the payment of fees, and likes credit till next Christmas. On these grounds the old Surgeon-apothecary or general Practitioner, with a surgery to which access could be had without the trouble of ringing at a private entrance, had a large and lucrative business; and let it be observed that, in law and physic alike, it is the many little cases that pay far better than the stupendous cases with their enormous labour and anxiety which no money can compensate.

Now, I think young men ought to be aware how much of this general practice has passed into the hands of the chemists. In London, the gentleman who was once general Practitioner now prescribes; and the nobleman, if he pays for the Medical attendance of his servants, now sends them to the chemist for advice as well as medicine. "Why," says he, "should I pay two people for doing what one can do very well?" The chemists, nothing loth, undertake the treatment of minor Medical and Surgical cases. But it may be said, they dare not come out and visit! Wait a few years, and we shall see who will dare hinder them. All the maxims of free traders will be invoked against such a mischievous (?) restraint of liberty.

A consulting Physician in London receives letters from a chemist in the country about a patient under the chemist's care; and I can't see what difference there is between such a consultation and one with a general Practitioner.

It would seem as if the apothecaries, in their anxiety to raise the status of their licentiates, had really begun to make them unfit to live; just as we are told some thoroughbred colts have legs so long and necks so short that they cannot crop the grass.

Whilst the general Practitioner is thus supplanted by the chemist from below, see how he is treated by the Hospital people above him. I was amused at reading the other day an account of the speeches at a meeting on behalf of one of the largest Hospitals and Medical schools, boasting that persons in middle life could receive better Medical attendance at the Hospital gratis than they could from their own Practitioner whom they pay. A general Practitioner, who lives near a large Medical school, where his son, a youth of 21, is an advanced pupil and dresser, was telling me that when his patients were dissatisfied with himself—a well educated man of thirty years' experience—they could go and be advised by his stripling of a son! I am, &c., FIFTY-FIVE.

London, April 27.

OBITUARY.

WILLIAM EDWARD MASFEN, M.B.,

WAS born in 1831, and was the third son of the late Mr. John Masfen, of Stafford, who was for many years one of the leading Practitioners in the county. Dr. Masfen having passed through the routine of apprenticeship with his father, and at the county Infirmary, went to London and entered King's College, where, as a student, he had a very successful career, obtaining many prizes and distinctions—amongst others the Warneford Prize for Divinity, and a scholarship in Comparative Anatomy. Before leaving King's he held the appointment of House-Physician at the Hospital, under the late Dr. Todd. He passed the College and Hall in 1852. He graduated at the University of London in 1853, distinguished himself by obtaining the University Scholarship in Medicine and the gold medal in Surgery and Midwifery. On the death of his father in 1854 he succeeded to his practice, and at the same time was appointed Surgeon to the General Infirmary, which post he held to the time of his death, having been for about two years Senior Surgeon. Dr. Masfen was a sound and painstaking Practitioner, and, in addition to natural abilities of a high order, he had an exceedingly well-disciplined and regulated mind, and the methodical manner in which he could arrange his ideas enabled him at all times to express himself in a clear and lucid manner. In addition to his Professional attainments, Dr. Masfen excelled in the contributory sciences, and was a man of great and varied accomplishments. He was deservedly esteemed, his uniform courtesy and kindness being evident to all; but his liberal charity to the poor was probably only known in a great measure to the recipients themselves, as nothing was more distasteful to him than ostentation in any form. The funeral took place on Friday se'nnight. The shops were partially closed, and the blinds of the windows of private houses drawn down along the line of route, and the streets

were filled by respectful and evidently sympathetic spectators. It is seldom a funeral in Stafford has called forth such a mournful interest. The funeral itself was of an unostentatious character, the deceased's partner (Dr. Cookson), Mr. Weston, the officiating priests, etc., and his immediate relations being alone invited. As a mark of respect, however, the mayor, the magistrates, Medical men, ministers of religion, and a large number of the gentlemen of the town, and members of the Earl St. Vincent Lodge of the London Order of Odd Fellows, joined the procession. The Rev. J. Nary delivered the funeral discourse, which was listened to with sorrowful attention by a large congregation. He alluded in feeling terms to the sad event which had called them together that day, and to the many good qualities of the deceased, particularly instancing his kindness to the poor. He said that he was foremost in every good work connected with the church at Stafford, of which he had been the mainstay, and he looked around in vain for one to fill his place. At the conclusion of the service the procession proceeded to the cemetery, where the remains were lowered into the grave with the usual ceremony, the choir singing the Psalm "De Profundis."

SAMUEL BROWN, F.R.C.S., ETC.,

Of Lewisham, was born on May 3, 1805, and died on April 21, 1872, in his 67th year. He was the eldest son of Mr. Samuel Cowper Brown, Surgeon, of Lewisham. He was educated at Mr. Walpole's school, Greenwich, which at that time had a great celebrity; and in 1821 was apprenticed at the College of Surgeons, and entered as a student at the united Hospitals of St. Thomas's and Guy's. He was dresser to Sir Astley Cooper, and a favourite clinical clerk to Dr. Bright. After obtaining his diploma, he joined his father in practice in the year 1828, and when Mr. Brown, sen., retired in 1835, he associated with himself his brother, William Henry Brown, who continued in partnership with him till his death in 1865. Mr. Brown was a man of great physical and mental energy, in spite of frequent attacks of gout. These became more severe after his brother's death, and about two years since it was found that he was suffering from albuminuria, and shortly afterwards he became the subject of epilepsy from uræmic poisoning, which compelled him to relinquish the active duties of his Profession. As may be supposed, this was a great trial to one of his energetic temperament and active turn of mind. He continued to take a warm interest in all that was going on around him, and only two hours before his death, when he was scarcely able to articulate, he inquired of a Medical friend, who called to see him, as to the condition of a mutual acquaintance who had been suffering from pleurisy. The immediate cause of his death was congestion of the lungs of a few days' standing. Mr. Brown kept himself *au courant* with the progress of Medical science, and was never so happy as when he had about him younger men who were actively employed in scientific pursuits. He was a man of considerable ability, and fair Surgical skill. A former rival Practitioner in his neighbourhood has often spoken to the writer of this notice of the skill and neatness with which he had several times seen Mr. Brown operate for hernia. His social qualities were much esteemed. He was very hospitable —in fact, more so than his means warranted; but he had a most kindly disposition, and entered heartily into the enjoyment of those around him. He was always a welcome visitor at the United Hospitals Club, of which he was for some years a member. The remembrance of "Old Sam Brown," as he was familiarly called, will not quickly pass away from a large circle of patients and private and Professional friends.

GEORGE ODLING, M.R.C.S., L.S.A.,

Of Sydenham-road, Croydon, Surrey, was born at Tetney, in Lincolnshire, the seventh son of a well-to-do farmer. He studied at the Borough Hospitals, and afterwards practised for many years in the Borough, where he was well known as an observant, skilful man. On the establishment of the Metropolitan Police Force he was appointed Surgeon to the M Division, and held the office until his retirement from practice about fourteen years ago. He was also Surgeon to the Licensed Victuallers' School at Kennington. Throughout life he enjoyed uninterruptedly good health until within the last few months, when symptoms of cardiac disease manifested themselves. He died rather suddenly, at Worthing, on the 26th inst., aged 77. He has left a widow and two children —a daughter (married), and a son, William Odling, M.B., F.R.C.P., F.R.S.

ALEXANDER BROWNE,

Surgeon on half-pay, 37th Foot, died on the 15th ult. at Langlands, Kirkcudbrightshire. He entered the service in June, 1825, became Surgeon in November, 1839, and retired on half-pay in August, 1850.

MEDICAL NEWS.

University of St. Andrews.—The following gentlemen, having passed the requisite examinations, obtained the degree of Doctor of Medicine on April 24 last:—

Clarke, John J., M.R.C.S. Eng., Surgeon H.M. Indian Army, Edinburgh.
Fiach, Thomas, M.R.C.S. Lond., Torquay.
Franklin, Edward J., F.R.C.S. Edin., Surgeon-Major R.A., Woolwich.
Gibson, John H., M.R.C.S. Eng., L.S.A., Hull, Yorkshire.
Hebblethwaite, James E., M.R.C.S. Eng., L.S.A., Bawtry, Yorkshire.
Mayer, John, F.R.C.S. Lond., Inspector-General Indian Army, London.
Perkins, Samuel S., M.R.C.S. Lond., L.A.C., Exeter, Devonshire.
Saunders, George, C.B., L.R.C.P. and S. Edin., Deputy-Inspector of Hospitals, H.M. Army, London.
Stretton, William H., M.R.C.S. Eng., L.S.A., Beverley, Yorkshire.
Veale, Thomas S., M.R.C.S., L.S.A., Surgeon H.M. Indian Army, Epsom, Surrey.

Royal College of Physicians of London.—At the ordinary quarterly meeting of the College on Thursday, April 25, the following Member was admitted Fellow:—

Wade, Willoughby Francis, M.D. Dub., 24, Temple-row, Birmingham;

and the following gentlemen were admitted Members:—

Cole, Thomas, M.D. Lond., L.R.C.P., 17, Paragon, Bath.
Farquharson, Robert, M.D. Edin., Junior United Service Club, S.W.
Grigg, William Chapman, M.D. Edin., 6, Curzon-street, Mayfair, W.
Laking, Francis Henry, M.D. Heidelberg, L.R.C.P., 13, Addison-road, Kensington, W.
Winslow, Henry Forbes, M.D. Lond., Sussex House, Hammersmith, W.

The undermentioned gentlemen, having conformed to the by-laws and regulations, and passed the required examinations, were granted Licences to practise Physic, including therein the Practice of Medicine, Surgery, and Midwifery:—

Allwood, John Philip, M.R.C.S., The Dispensary, Macclesfield.
Arthur, Joseph, M.R.C.S., 14, Commercial-place, Commercial-road, E.
Boon, Alfred Pearl, M.R.C.S., St. Mary's Hospital.
Domville, Edward James, M.R.C.S., Devon and Exeter Hospital, Exeter.
Ewart, William, M.R.C.S., St. George's Hospital.
Harrison, Richard, M.R.C.S., Mabe House, St. Lawrence-road, Nottinghill, W.
Lammiman, Cleland, M.R.C.S., 106, Cannon-street-road, E.C.
Pitts, Henry Yate, M.R.C.S., Raikes House, Walton, Liverpool.
Roche, Eleazer Birch, M.R.C.S., 21, St. Stephen's-road, Lewisham, S.E.
Young, Adam, M.R.C.S., Seamen's Hospital, Greenwich, S.E.
Coltart, William Wilson, who passed his Examination in Medicine, July 24, 1871, and has obtained a recognised qualification in Surgery.

The following candidates, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a Qualification in Surgery recognised by the College:—

Dundas, George Albert, Guy's Hospital.
Fagg, Thomas Henry, 4, Talbot-road, Bayswater, W.

Mr. Harry Davis, of University College Hospital, passed his Primary Professional Examination.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 30th ult., viz.:—

Addis, Philip, Gloucester-crescent, N.W., student of University College.
Bailey, John Andrew, Bushey, Herts, of Guy's Hospital.
Chicken, Rupert Cecil, Nottingham, of Guy's Hospital.
Cleghorn, George, Calcutta, of St. Thomas's Hospital.
Drew, Charles Wallace, Exeter, of the London Hospital.
Floyer, Blaise Bernard, L.S.A., Floore, Northamptonshire, of the Middlesex Hospital.
Galabin, Alfred Lewis, M.A. Cantab., Camberwell-grove, of Guy's Hospital.
Goldsmith, Septimus Jesse, Brixton, of St. George's Hospital.
Hutchings, Robert Huntriss, L.R.C.P. Edin., Southsea, Hants, of Guy's Hospital.
Laver, Arthur Henry, Rayleigh, Essex, of St. Thomas's Hospital.
Maybury, Aurelius Victor, Frimley, Surrey, of St. Thomas's Hospital.
Newman, Alfred Samuel, Birmingham, of the Birmingham School.
Parkes, William Edmund, L.S.A., Birmingham, of the Birmingham School.
Ritchie, James, Edinburgh, of the Edinburgh School.
Thomson, William, M.B. Edin., Charles-street, Grosvenor-square, of the Edinburgh School.
Underhill, Arthur Stafford, M.B. and M.C. Trin. Col. Dub., Tipton, Staffordshire, of the Dublin School.
Wright, Francis James, L.S.A., Preston, Lancashire, of St. Thomas's Hospital.

The following gentlemen passed on the 1st inst., viz.:—

Cave, Alfred, L.S.A., Newport, Isle of Wight, student of the London Hospital.
Chilcot, James, L.S.A., Southsea, of University College.
Critchett, George Anderson, B.A. Cantab., Harley-street, of the Middlesex Hospital.

Dixon, John Francis, Bournemouth, of St. Bartholomew's Hospital.
Groves, Matthias, Radipole, near Weymouth, of St. Bartholomew's Hospital.
Hacon, Walter Edward, Mare-street, Hackney, of Guy's Hospital.
Hawthorn, William Thomas, L.S.A., Uttoxeter, Staffordshire, of the London Hospital.
Knott, Charles, Portsmouth, of Guy's Hospital.
Morris, Sydney, Hayes, Kent, of St. Bartholomew's Hospital.
Oates, James Pimlott, L.S.A., Stourbridge, Worcester, of the Birmingham School.
Pitts, Robert Zaccheus, L.S.A., Hingham, Norfolk, of the Middlesex Hospital.
Price, Hughe Pughe Jones, L.S.A., Iron Works, Dowlais, Glamorganshire, of the Manchester School.
Roberson, Edward, Tytherington, Gloucestershire, of the Charing-cross Hospital.
Sparrow, Robert Launcelot, Dublin, of the Dublin School.
Thompson, Francis Henry, L.S.A., Tenbury, Worcestershire, of St. Thomas's Hospital.
Williams, Benjamin Harvey, Haverfordwest, of Guy's Hospital.

The following gentlemen were admitted Members on the 2nd inst., viz.:—

Baldock, Alfred, L.S.A., Upper Holloway, student of St. Bartholomew's Hospital.
Dundas, George Albert, St. George's-road, S.E., of Guy's Hospital.
Fosbroke, George Haynes, L.S.A., Bedford, Redditch, of the Westminster Hospital.
Harris, John Delpratt, L.S.A., Exeter, of St. Bartholomew's Hospital.
Kindon, Joseph, L.S.A., Croydon, of Guy's Hospital.
McCammon, James, M.D., Kingston, Canada, of Guy's Hospital.
Wall, Abiathar, L.S.A., Bayswater, of St. Bartholomew's Hospital.

Five candidates passed the examination in Surgery, and when qualified in Medicine will be admitted Members of the College; and eighteen candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Hospital studies for six months.

The next primary or anatomical and physiological examination for the diploma of Membership takes place this day (Saturday).

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, April 25:—

Goodchild, Nathaniel, Kentish Town-road.
Lyle, Henry Bowden, Graham-road, Hackney.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Nunez, Daniel, Guy's Hospital.
Williamson, George Edward, London Hospital.

At the Preliminary Examination in Arts held at the Hall of the Society on April 26 and 27, fifty candidates presented themselves, of whom twenty-three were rejected, and the following twenty-seven passed and received certificates of proficiency in general education:—

FIRST CLASS (IN ORDER OF MERIT).

First—James Herbert Simpson. | *Second*—William Saunders.

In the Third Division—

Battle, William Henry.	Hoppus, John Devenish.
Ellis, Philip Mackay.	Rowland, Alice M.
Griffin, Arthur Edward.	

SECOND CLASS (IN ALPHABETICAL ORDER).

Badcock, George Sainthill.	Lawson, Ella.
Bax, Ernest Belfort.	Money, Angel.
Bentham, Edward Cooper.	Phillips, Stephen Thomas.
Boyd, Robert John.	Platt, Adrien Pigot.
Buckley, Herbert.	Roberts, Walter Reginald.
Dent, Francis Alfred.	Robinson, Ernest Laurie.
Gilbert, Philip Francis.	Smith, Henry Phillips.
Hope, Edward.	Tyrrell, Walter.
Isbell, Richard Woodward.	Watkins, Sydney.
Lavies, J. W. Y. H.	Williams, Chas. Godfrey Hugh.

Of the fifty candidates, nineteen had been previously rejected, and of those nineteen, thirteen have again failed to pass the examination.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ASHBY, A., F.R.C.S.—Assistant-Surgeon to the Royal South Lincoln Militia, *vice* G. W. Shipman, promoted.

ELLIOTT, WILLIAM HAMILTON, A.B., M.B., L.R.C.S.I., L.M.—Medical Officer to the Coolock and Drumcondra Districts, North Dublin.

GREAVES, C. H., M.R.C.S. Eng., L.S.A.—Medical Officer to the Stafford Union.

OLDHAM, C. J., F.R.C.S., Assistant-Surgeon to the Central London Ophthalmic Hospital, *vice* W. Fairlie Clarke, M.R.C.S.

PEARCE, W. HENRY, M.R.C.S. Eng., L.S.A. — House-Surgeon to the Rotherham Hospital.

WALKER, ALEXANDER, M.A., M.B., C.M.—Medical Officer to the Parish of Kelt, Aberdeenshire.

NAVAL APPOINTMENTS.

MEDICAL.—Matthew Coates, Surgeon, to the *Cambridge*; Dr. J. W. Fisher, Assistant-Surgeon, to the *Ganges*, for service in the *Liberty*.

BIRTHS.

ADAMS.—On April 23, at Barnes, Surrey, the wife of James Adams, M.D., of a son.

DE FABECK.—On April 27, at 28, Nelson-street, Edinburgh, the wife of Wm. F. De Fabeck, Surgeon 6th Regiment Madras N.I., of a daughter.

PAYNE.—On April 27, at Wimbledon, the wife of Charles Henry Payne, M.D., of a son.

SCOBELL.—On April 25, at Plympton St. Mary, the wife of Thomas E. Scobell, M.R.C.S. Eng., of a son.

MARRIAGES.

BISHOP—PIDCOCK.—On April 24, at the parish church, Watford, Herts, Thomas Bishop, Esq., of Bramcote, Notts, to Georgina Elvira, only surviving daughter of the late John Pidcock, M.D., of Watford.

BRODIE—JOHNSON.—On April 23, at the parish church, Sturry, David Brodie, M.D., of Columbia Lodge, Liberton, Edinburgh, to Martha Grove, eldest daughter of George Richard Johnson, Esq.

GULSTON—MCWILLIAM.—On April 24, at St. Michael's Church, East Teignmouth, John Reynolds Gulston, Esq., of the Inner Temple, and of East Cliff, Teignmouth, to Frances Pemberton Deas, fifth daughter of the late James Ormiston McWilliam, M.D., C.B., F.R.S., F.R.C.P., R.N., late Medical Inspector of her Majesty's Customs, London.

HENDERSON—PHILIP.—On April 25, at the British Consulate, Leghorn, Robert Charles Henderson, Esq., merchant, Leghorn, to Anna Marie Louise, eldest daughter of the Rev. H. Philip, M.D., D.D.

OWEN—TURNER.—On April 23, at St. James's, Bermondsey, the Rev. John Stanley Owen, curate of Stepney, to Emily, second daughter of William Hall Turner, M.R.C.S. Eng., L.S.A., of 33, Bermondsey-square.

PARSONS—BARTLETT.—On April 23, at the Minster, Wimborne, Frederick James Parsons, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., of Yeovil, to Mary, eldest daughter of the late Thomas Bartlett, Esq., of Closworth, Somersetshire.

SAYER—RICHARDS.—On April 30, at St. Giles's-in-the-Fields, William Feetham Sayer, Esq., of 86, Alexandra-road, South Hampstead, eldest son of Edward Sayer, Esq., of Oak Lodge, East Finchley, to Angelina, fourth daughter of Samuel Richards, M.D., of 36, Bedford-square.

TURNER—SHACKLE.—On April 27, at St. Martin's-in-the-Fields, Francis S. Turner, of Manor-road, New Cross, second son of the late J. S. Turner, M.R.C.S.E., of Woolwich, to Fanny, third daughter of W. Shackle, Esq., of The Hollies, Iver, Bucks, late of The Woodlands, near Romford.

DEATHS.

BLECKLEY. JOHN MOLLAN HAMILTON, eldest child of Staff Surgeon T. M. Bleckley, M.D., LL.B., Secretary to Inspector-General of Hospitals, at Simla, Punjaub, India, on March 15, aged 4 years and 2 months.

BODEN, ROBERT, M.R.C.S. Eng., L.S.A., at his residence, Smalley, near Derby, on April 21, aged 74.

CARR, FRANCES REBECCA, the beloved wife of J. K. Carr, M.D., Surgeon-Major Royal Artillery, at 14, Victoria-terrace, Exeter, the house of her father, Major John Bent, on April 26.

CHARLTON, HENRY BERNARD, third son of Edward Charlton, M.D., of 7, Eldon-square, Newcastle-on-Tyne, at Bath-terrace, Plymouth, on April 24, aged 2 years and 7 months.

FERRIS, HENRY JAMES, Assistant-Commissary, eldest son of George Thomas Ferris, M.R.C.S. Eng., Inspector-General of Hospitals, at Stonehouse, Plymouth, on April 28.

KNIGHT, MORRISON, M.D., at Gladesville, near Sydney, New South Wales, one of the Medical staff on duty at the Hospital for the Insane at that place, on February 23.

ODLING, GEORGE, M.R.C.S., of Sydenham-road, Croydon, at Worthing, on April 26, aged 77.

ROSS, Mrs., widow of the late Dr. Andrew Ross, late E.I.C.S., at 49, Colville-gardens, Notting-hill, on April 24, aged 69.

WATSON, ROBERT MATHER, M.R.C.S., L.S.A., J.P., at Stoke, Devonport, on April 16, aged 70.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ASHTON-UNDER-LYNE DISTRICT INFIRMARY.—House-Surgeon. Candidates must possess both a Medical and Surgical diploma. Applications and testimonials to be addressed to "The President of the District Infirmary," and forwarded to H. T. Darnton, Esq., Honorary Secretary, Ashton-under-Lyne, on or before May 11.

DERBY COUNTY LUNATIC ASYLUM, MICKLEOVER.—Assistant Medical Officer. Candidates must possess both a Medical and Surgical diploma. Applications and testimonials to be sent to John Barber at the Asylum.

GREAT NORTHERN HOSPITAL.—Ophthalmic Surgeon. Candidates must be F.R.C.S. Applications and testimonials to be sent to G. Reid, Secretary, 46, Great Coram-street, W.C., on or before May 16.

GUILDFORD UNION.—Medical Officer and Public Vaccinator. Candidates must be duly qualified. Applications and testimonials to be sent to Mark Smallpeice, Assistant-Clerk, Guildford Union, on or before May 9.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY.—Resident Medical Officer. Candidates must be duly qualified. Further information may be obtained by applying to the Honorary Secretary, E. L. Watts, Esq., Douglas, Isle of Man, to whom testimonials must be sent on or before May 7.

KING'S COLLEGE.—Demonstrator of Practical Physiology.

Middlesex County Lunatic Asylum, Hanwell.—Medical Superintendent of the Male Department. Candidates must be Fellows, Members, or Licentiates of one of the Royal Colleges of England, Scotland, or Ireland, and duly registered in Medicine and Surgery. Copies (only) of testimonials, accompanied by a form (which will be forwarded on application), must be sent to Richard William Partridge, Clerk to the Visitors, on or before Saturday, May 4.

North Riding Infirmary, Middlesborough-on-Tees.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

Sheffield General Infirmary.—Assistant House-Surgeon. Candidates must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or L.F.P.S.G. and L.S.A., or L.R.C.P.L. Applications and testimonials to be addressed to "The Medical Staff of the Infirmary," care of the Secretary, on or before May 16.

University College Hospital.—Resident Medical Officer. Applications and testimonials to be sent to John Robson, B.A., Secretary to the Council, on or before May 18.

West Bromwich District Hospital.—House-Surgeon. Candidates must be doubly qualified. Applications and testimonials to be sent to P. D. Bennett, Honorary Secretary, West Bromwich, on or before May 6.

Westhampnett Union, Sussex.—Medical Officer. Candidates must be duly qualified. Applications and testimonials to be sent to R. G. Raper, Clerk to the Guardians, at the Office, West-street, Chichester, on or before May 17.

Westminster Union.—Medical Officer. Candidates must possess both a Medical and Surgical degree. Applications and testimonials to be sent to the Union Office, Poland-street, Oxford-street, on or before May 15.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Alton Union.—Dr. Hammond has resigned the Third District; area 14,588; population 3340; salary £100 per annum.

Belper Union.—The Smalley District is vacant; area 9258; population 4974; salary £27 10s. per annum.

APPOINTMENTS.

Bramley Union.—Alfred Rickards, L.R.C.P. Lond., M.R.C.S. Eng., to the New Workhouse.

Chesterton Union.—Patrick J. Molony, B.M. and M.C. Trin. Col. Dub., to the Fourth District.

East Ward Union.—Robert Buntine, L.F.P. and S. Glasg., for the Brough District.

Kingston-on-Hull Incorporation.—Daniel Gibson, M.R.C.S. Eng., L.S.A., to the West District.

Kingston (Surrey) Union.—Other W. Berry, M.R.C.S. Eng., L.S.A., to the Upper Wimbledon District. Edward Johnson, L.R.C.P. and L.R.C.S. Edin., to the Lower Wimbledon District.

St. Austell Union.—George C. Birt, L.F.P. and S. Glasg., L.S.A., to the Second District. Thos. J. Hill, M.R.C.S. Eng., L.S.A., to the Grampound District.

Thingoe Union.—Frank Marshall, M.R.C.S. Eng., L.S.A., to the Eighth District.

Inspector-General Muir, C.B., has been recalled from India, where he has been filling, during five years, the position of principal Medical officer of H.M.'s forces, to assume the duties of head of the sanitary branch of the Army Medical Department in London.

Dr. B. G. Darley, having served as Medical Officer to the Coolock Dispensary District, North Dublin Union, for thirty-five years, has been granted the highest superannuation allowed by Act of Parliament.

The death is announced of Mr. Dudley Doran from typhus fever, taken in discharge of his Medical duties at the Meath Hospital.

The Glasgow Chamber of Commerce have resolved to petition Parliament against the Public Health Bill, on the ground that its provisions, were they applied to Scotland, would "seriously injure productive industry and make it impossible to carry on many of the productive operations of the country."

Testimonial.—Nearly £400, in amounts varying from half a crown to twenty pounds, has been already subscribed for a public testimonial to Dr. Evan Pierce, of Denbigh.

Great Mastodon.—The remains of a mastodon have recently been discovered in a swamp near Otisville, Orange County, New York. Nearly all the bones have been dug out, and the skeleton, when put together, will be fourteen feet high and twenty-five feet long. The contents of the stomach were also discovered, and found to consist of very large leaves and long blades of strange grass from one inch to three inches wide.

Mr. Haviland's Disease Map.—At the *conversazione* of the Royal Society held at Burlington House on the 27th ult., under the presidency of the Astronomer Royal, Mr. Alfred Haviland exhibited a coloured map of the geographical distribution of typhoid and other fevers in England and Wales, reduced from the large chart which illustrated his lectures during the winter session at St. Thomas's Hospital.

Broderip Scholarships.—Two scholarships, of the annual value of £30 and £20 respectively, tenable for two years, have been founded by the Governors of the Middlesex Hospital, for the encouragement of the study of Medicine and Surgery, in memory of the late Francis Broderip, Esq., a munificent benefactor to the Hospital. These scholarships will be open to competition, at the end of each winter session, amongst the general Students of the Hospital who shall have completed their third year of study at the Medical College. The successful candidates will be required to attend and work at the Hospital for a fourth year, during which period they will be eligible for the various resident appointments.

Middlesex Hospital Entrance Scholarships.—Two scholarships, of the annual value of £25 and £20 respectively, will be offered for competition at the commencement of the winter session 1872-73. Each scholarship is tenable for two years, provided the scholar conducts himself satisfactorily. These scholarships are open to all gentlemen who commence their Medical studies in October, 1872. Successful candidates will be required to become general students of the College. The examination will take place on September 27 and following days, and the result will be declared on October 5. The following are the subjects for examination:—Latin, Greek, French or German, mathematics, natural philosophy, chemistry, botany, and zoology. Candidates will be examined in any three of the above subjects they may select; but only one modern language and two out of the last three subjects are permitted.

Presentation of an Address to Professor Tuson.—The other day an address by the students attending the class of Practical Chemistry at the Royal Veterinary College, of which the subjoined is a copy, was presented to Professor Tuson:—"To Richard V. Tuson, Esq, F.C.S., Professor of Chemistry and Materia Medica in the Royal Veterinary College.—Sir,—We, the undersigned students of the Royal Veterinary College, beg to acknowledge most heartily the efforts you have made to facilitate the acquirement of a practical knowledge of such a difficult subject as chemistry. While our opportunities for studying this important science were confined to those afforded by attendance on lectures only, the facts and principles of this branch of the curriculum were retained in the memory with extreme difficulty; but since we have had the privilege of working with our own hands in the laboratory, we find that we make greater and more rapid progress, and that we can more thoroughly appreciate the value and practical utility of chemistry to everyone desirous of following the profession of veterinary medicine on sound and rational principles. We also beg to congratulate you on your being the first to establish a course of laboratory instruction in the oldest and principal veterinary college in this country; to thank you most sincerely for the sacrifice of your valuable time which you have voluntarily and gratuitously made for our benefit and advancement; and to hope that you may long be spared to participate in that in which you have manifested such a deep interest—*videlicet*, the education and elevation of the social status of the veterinary student." (Here follow the signatures of seventy-seven students.)

Zymotic Diseases.—In his Quarterly Report the Registrar-General writes:—"The annual death-rate from small-pox in England and Wales during the first three months of this year was, as before stated, equal to 1·3 per 1000 of the estimated population, against 1·1 in the last quarter of 1871. In the eighteen largest English towns, the 2585 fatal cases were equal to an average annual rate of 1·6 per 1000; while in fifty other large towns 1296 deaths from small-pox occurred, or equal to 2·1 per 1000. In England and Wales, exclusive of these sixty-eight large towns, which are now estimated to contain a population of 8,893,299 persons, the deaths from small-pox last quarter were therefore 3839, or equal to an annual rate of nearly 1 per 1000 of a population of rather more than 14,000,000. The following are a few of the highest death-rates from small-pox per 1000 persons living during last quarter:—among the eighteen largest cities and boroughs, 13·5 in Norwich, 9·3 in Wolverhampton, 7·7 in Nottingham, and 7·0 in Sheffield; among the fifty other large town districts, 12·8 in Northampton, 9·8 in Newport (Monmouth), and 8·6 in Dover; in other town registration sub-districts, 24·0 in Bideford, 15·2 in Tredegar, 14·9 Bridport, 14·5 in Bishop Auckland, 14·0 in Cadoxton, 13·5 in Radford, 12·8 in Castleford, 12·4 in Malton, 12·0 in Yeovil, and 11·9 in Llantrisaint. With regard to the distribution of the fatal cases of the other zymotic diseases, it may be briefly remarked that measles was proportionately most prevalent in London, Staffordshire, Lanca-

shire, and the West Riding of Yorkshire; the districts of Bolton and Cardiff showed excessive numbers. Although the deaths from scarlet fever were less numerous than in recent quarters, the disease was more or less epidemic in many parts of Staffordshire, Lancashire, the West Riding of Yorkshire, Durham and South Wales; Wolstanton, Stoke-upon-Trent, Bury, Burnley, Todmorden, and Whitehaven were among the districts which suffered from exceptional prevalence of this disease. The deaths from hooping-cough were exceptionally high last quarter, and the disease was especially fatal in London, Liverpool, Manchester, and West Bromwich. The death-rate from fever was considerably lower than in recent corresponding quarters, but, as usual, showed an excess in the manufacturing districts of Lancashire and Yorkshire; in Nottinghamshire the deaths from fever had considerably declined from the high number returned in the last three months of last year, but they were again excessive; the fatality from fever was exceptionally high in the borough of Sunderland and in Strood (Kent), Whitchurch (Hants), Radford, Yarm, and Llanelly sub-districts. A considerable reduction in the death-rate from fever has occurred in recent years, and has been especially conspicuous in London. There is little doubt but that this result is directly due to an increased efficiency in sanitary supervision. When the whole country shall have been brought under the organised control of sanitary authorities we may hope for a still more strongly marked decline in the fatality from zymotic diseases. So long, however, as the appointment of Health Officers, even in large towns, is optional, and so long as rural districts are not formed into organised sanitary districts, it is almost futile to hope for a more rapid decrease of the waste of life from these causes which is continually occurring around us."

Medical Statistics of Paris for the Quinquennial Period 1865-69.—Those of our readers who are interested in the subject will find an elaborate statistical and nosographical analysis of the above period, from the pen of M. Ely, a very able statistician, in the *Gazette Hebdomadaire* for March 15 and April 5 and 19.

Criminal Abortion in China.—M. Martin, Physician to the French Legation at Pekin, states that strangers remark innumerable small bills which are pasted on the walls of Pekin and other large towns. These, when translated, are frequently found to relate to "infallible drinks for overcoming obstructed menstruation"—an adroit mode of describing abortives. The police do not interfere with the sale of these; but when persons seek to purchase them the seller informs himself of their names and addresses. Every seller has his own secret remedy; but in Pekin the *pediculus bovis* and a species of leech dried and reduced to powder and applied to the cervix uteri are the favourites. Instruments are very rarely used. The seller apprises the mandarin of the locality of the purchase that has been made, and he institutes his inquiries, not with the view of preventing the abortion, but of ascertaining the circumstances which have rendered it desirable. The pregnancy may have arisen from illicit relations, and adultery is a capital crime in China; or a girl, escaping from the surveillance of her friends, may have become the victim of violence, and here it is also the business of justice to protect the honour of the domestic circle. But if it is only a married woman who, pregnant by her husband, wishes to disembarrass herself of the inconvenient results, the law is satisfied and does not interfere. How the case is viewed by public opinion there is no means of judging, the numerous works on moral philosophy all being silent on the subject.—*Gazette Hebd.*, April 5.

NOTES, QUERIES, AND REPLIES

He that questioneth much shall learn much.—*Bacon.*

Dr. C. J. B. Williams's next lecture on "Success and Failure in Medicine" is in type, and shall appear next week.

The late Dr. Bell, of Amoy.—A fund is being raised for the benefit of the widow of the late Dr. Bell, who acted as Medical missionary in China, and afterwards practised in New Zealand. We will give fuller particulars next week. The fund is raised and managed by John P. Coldstream, Esq., 5, St. Andrew's-square, Edinburgh.

A National Medical Council.—Several voices are raised in behalf of the establishment of a National Medical Council, not merely to take charge of the education and registration of the members of our Profession, but to guide the Government in all questions of hygiene and Medical policy at home and abroad, civil and military. "An Army Surgeon" writes—"There should be a Medical Council of some kind to advise Government upon all questions of a national character, and of such a council I would allow the Director-General to be a member. I would leave him despotic enough with regard to the authority he might exercise upon his *own* dependents and subordinates, but I would relieve him as soon as possible from any power to control Medical science or the Medical and Surgical practice of his subordinates."

It must never be forgotten that one man often does a thing right out, whilst a council ponders, and weighs, and doubts, and deliberates till the time for action is gone by.

Dr. A. P. Stewart.—In the *Medical Times and Gazette* for April 13, 1872, the following paragraph was published respecting Mr. Stansfeld's Public Health Bill:—

"Two deputations have made a visitation on Mr. Stansfeld respecting it—one of the body of philosophers who issue from the Social Science Association, and who dwelt chiefly on the theoretical and administrative features of the Bill. The objection to Dr. Ramsey's schemes is that they are too elaborate, exclusive, expensive, and technical to be accepted by a practical country. As studies of that theoretical perfection which philosophers desire, they are perfect; and it is something to have a high standard set up, though it may be unattainable. The other deputation (of Medical Officers of Health) avoided all theoretical questions, and seemed animated with the desire to push through what promises to be a very valuable Bill."

Thereupon Dr. Stewart sent us the letter which follows:—

"Sir,—In your notice (April 13) of the deputations to Mr. Stansfeld in reference to the Public Health Bill, you have (I am sure unintentionally) done great injustice to the Joint Committee, of which I have the honour to be one of the secretaries. That body, composed of above fifty members of the British Medical and Social Science Associations, has, during the last five years, bestowed upon the whole question of sanitary organisation an amount of thought, time, and self-denying labour that ought to secure for its deliberate and collective opinions some degree of respectful attention. Its 'collective opinion' I say—for, with the exception of two (or at most three) distinguished and generally esteemed members of it, all are agreed as to the principles which should guide them in the discharge of the duties assigned to them; its 'deliberate opinion' I say, because not a report or memorial has been adopted without being subjected for weeks to the most searching criticism—"proofs" having been issued to every member, and returned by many with annotations and suggestions more or less elaborate. To represent such men as blindly following the lead of any one man, however eminent—and nothing less is implied in describing the proposals of the Committee as 'Dr. Rumsey's schemes'—is a great public wrong. But when I state that among this flock of sheep who meekly or mechanically follow the bell-wether are such men as Arlidge, Edward Ballard, Baylis of Birkenhead, William Budd Burke of Dublin, Edwin Chadwick, William Clode, Davies of Bristol, Dyke of Merthyr, Falconer, William Farr, Gairdner, Hastings, Alfred Hill of Birmingham, Holland, Edward Jenkins, Liddle, Michael Morgan of Manchester, Philipson of Newcastle, Ransome of Bowdon, Tindal Robertson of Nottingham, Strange of Worcester, Tremenheere, Tyacke of Chichester, Washbourn of Gloucester, Thomas Webster, and Edward Wilson of Cheltenham, the innuendo becomes simply ridiculous. Those who are familiar with the history of sanitary effort during the last quarter of a century will be inclined to accept these names as a guarantee that any proposals seriously put forth by them are *not* 'too elaborate, exclusive, expensive and technical to be accepted by a practical country.' Without some such machinery to carry them out as is recommended by the Joint Committee, the 'practical' suggestions of the Metropolitan Medical Officers of Health, and any number of Acts embodying them, will be (as heretofore) a dead letter. Provide a thoroughly effective agency of enlightened administrators, and of well-trained and independent executive officers, and the practical results will follow as a matter of course. No such effective machinery is provided by the Public Health Bill, hence our earnest endeavours to amend its administrative provisions. I am, &c., A. P. Stewart.

"Grosvenor-street, W., April 17."

We did not think Dr. Stewart's letter required publication, but we inserted the following note in the *Medical Times and Gazette* for April 27:

"*The 'Social Science and Joint Committee's' Opposition to Mr. Stansfeld's Bill.*—We have received a letter from Dr. A. P. Stewart, in which he points with commendable pride to the 'thought, time, and self-denying labour' which these bodies have expended in devising a perfect scheme of sanitary organisation, and claims for its 'deliberate and collective opinions' some degree of respectful attention—in fact, Dr. Stewart regards any opposition to their opinions or movements as a 'public wrong,' an 'innendo, 'simply ridiculous,' etc. Let us substitute the Royal Sanitary Commission, or the Local Government Office, or any other body who have spent 'thought, time,' etc., in excogitating sanitary measures. Why does not Dr. Stewart think them above criticism? Or why cannot honourable men criticise each other's opinions without intermixture or suspicion of personal disrespect?"

Hereupon Dr. Stewart sends the following note:—

"Sir,—After the notice to correspondents in your last issue, I must claim, as a simple act of justice, the publication *in extenso* of my letter, that your readers may judge for themselves whether I gave expression to any such sentiments as those indicated in the said paragraph.

"April 30. I am &c., A. P. Stewart."

We would willingly do anything to gratify so honourable and justly esteemed a Physician as Dr. Stewart, and we willingly shall abide by the verdict which any unbiassed person may give on the matter. Nay, we would appeal to Dr. Stewart's own sense of honour, and ask him by what right he puts a gloss of his own upon our plainly expressed opinion, and uses the most unjust and offensive term *innendo*, and then complains of being hurt when his own sentiments or those of his friends are subjected to criticism!

The Mrs. Day Fund.

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JOTTINGS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In 1757, ninety-one years after the Plague, at Eyam some labouring men digging potatoes came upon what appeared to be linen, which they immediately hurried. All sickened with typhus; three died; the disease spread, and seventy people in the parish fell victims. Reading and thinking over this, an unwelcome tap on one's venerable shoulder was experienced, and the everlasting inquiry again reiterated—How is *poor* Mrs. Rogers? What *is* the matter? What is *your* opinion? Heaven knows the work to-day has been anxious enough—the modest income (heavily saddled with many deductions) fairly earned—why not a little peace? One statesman said life would be very tolerable but for the amusements; another, who had just been addressing a lady rather *décolletée* and old as his bosom friend, remarked that receiving deputations constituted his relaxation; and, to descend from great people to small, my recreation consists in writing to the *Medical Times and Gazette*. There is one great advantage in attending those persons whose relations, friends, and chance acquaintances cannot pester you morn, noon, and night with idle questions about one particular patient when many others are weighing sorely on the Professional mind. There is no escape, either at the Boat-race, the "Sublime Society of Beefsteaks," or at ordinary meals. The fate of nations depends upon how they are fed, remarks Brillat Savarin; even a dog is worthy of his dinner. Lately more than fifty cases of measles, greatly complicated, have been on the list, all turning out well, giving far less trouble than the single case of Mrs. Rogers; not that she is to blame—a nice, gentle, amiable creature, very ill indeed, suffering from gastric fever during early pregnancy, besides neuralgia and obstinate vomiting (the latter condition, by the way, greatly benefited by Chapman's spinal ice-bags). A good mother, a large roeio, and a trained nurse combine to counterbalance a nervous husband; and, above everything, the patient, taking a bright view, and fully understanding that the Physician corresponds to the captain of a ship tossed by the storm or approaching the rocks, obeys implicitly. Mrs. Price writes to-day, asking what to do with her baby, who, refusing all artificial food, prefers that which not enriches him yet leaves her poor indeed. A story is going about that Mrs. Wilkins, on her second honeymoon, nursed her first husband's child. (Holding up his hands, Dominie Sampson ejaculates "Prodigious!") Also, an eight months' child, six weeks old, refusing the breast and the bottle, takes kindly to beef-tea! Just now, ascetic patients, rigidly keeping Lent, are suffering from neuralgia, relieved by a good dinner and a bottle of port. A woman states that, after each of her six labours, for weeks she experiences a feeling of hatred to everyone excepting the infant; and that, as a rule, she cannot put her hands into cold water without exquisite agony, only relieved by stroking velvet. Another, that (confined at ten o'clock on a Sunday night) she was naturally delivered by a midwife of a boy, and twenty minutes after of a girl—one placenta, two cords. On the Wednesday after she gave birth to a putrid male fœtus (separate cord and placenta), none of her children surviving. By several Medical men enormous bursæ about the knees and elbows are attributed to muscular strain during labour. Coincidentally, a few days ago, another woman considered squinting due to the same cause. Lately, a patient suffering from pneumonia in the eighth month of eighth pregnancy gave premature birth to three girls footling at half-hour intervals, the children surviving three days. Amongst savages there is a great objection to twins—an implication of infidelity—one father, one child. Talking of savages, a cannibal was asked if he knew a certain Medical man, who was missing; he replied that he did, intimately—in fact, had eaten him. February 27 will long be remembered in connexion with a case of puerperal mania, which prevented my witnessing the Thanksgiving ceremonial. Captain Binks of the Horse Marines, in a gold-laced jacket, plumed busby, embroidered sabretasche, and mounted on a well-gingered charger, looked splendid with his long sword, saddle, and bridle. Little did the admiring crowd imagine that for hours this gallant officer had to endure the agonies of a distended bladder. In the crowd there were two deaths and 227 accidents, including the crushed babies of mothers who agreed with Lord Amberley as to the limitation of families, and the man who dislocated his jaw agape with admiration at the loyal and reckless-of-expense decorations at the *Lancet* office. At dinner the other night, a strong-minded lady, covered with diamonds, said, "Look at my husband, who has been ill—three Doctors, two nurses, ninety tins of essence of beef, pounds of ice, dozens of champagne; I assure you, Mr. Smith, that man cost me £300." Dr. Ollapod doubtless would have replied, "Thank you, madam; I owe you one." In some book there is a story of a field preacher, who, taking as his text, "Although, after my skin, worms destroy this body," etc., divided his sermon into three heads—"First, The diagnosis, pathology and treatment of skin-worms; secondly, What they done; thirdly, What the man saw after he was eaten up." Please excuse a little levity. The fact is, I write in high spirits—delighted, after thirty-three days' hard battle with the case of puerperal mania, to find the patient, who for many nights required constant restraint, and whose

screams and yells were frightful to hear, is getting better, mentally as well as bodily. Every remedy was tried, including repeated scruple doses of bromide of potassium, henbane, chloral hydrate, opium, etc., by the mouth; but the hypodermic injection of morphia alone was of service, acting splendidly, although one night four grains had to be administered. Turpentine enemata, too, the constant application of ice to the shaved head, a diet mainly consisting of milk, and the amount of wine never exceeding five ounces a day, all helped. Even now we are scarcely out of the wood, but gradually she is improving. Her mother and her grandmother died insane after delivery. I am, &c., A General Practitioner.

COMMUNICATIONS have been received from—

Mr. Scobell; Mr. W. H. Pearce; D. S. C.; Mr. F. A. Bulley; Dr. Woodward; Waterproof; Messrs. Lindsay and Blakiston; Dr. Bristowe; Dr. C. Rogers; Mr. G. H. Page; Mr. A. Ashby; Dr. Baxter; Mr. Swinnerton; Mr. Loewenberg; Mr. W. Crookes; Dr. Junker; Dr. Charles J. B. Williams; Dr. Alfred Carpenter; Professor Flower; Mr. H. Morris; Mr. J. Chatto; Mr. W. H. Corfield; Mr. Weightman; Dr. Ogling; Mr. H. R. Bell; Dr. Wiltshire; Mr. Blackett; Mr. Brodhurst; Mr. R. Quain.

BOOKS RECEIVED—

Spiritualism answered by Science, by Edward W. Cox, S.L., F.R.G.S.—Lecture notes for Chemical Students, vol. ii., by Edward Franklin, D.C.L., F.R.S.—The Use of Earth in Surgery, by Dr. A. Hewson—Address delivered before the Geological Society of London, by Joseph Prestwich, F.R.S., on February 16, 1872—Mankind, their Origin and Destiny, by an M.A. of Balliol College, Oxford—Natural Philosophy, translated and edited from Ganot's Cours Elémentaire de Physique, by E. Atkinson, Ph.D., F.C.S.—Annual Report of the Worcester County Lunatic Asylum—Annual Report of the Leamington Provident Dispensary—Sudden Death after Delivery from Embolism of the Pulmonary Artery, by Dr. John Ringland—Two Cases of Transfusion in Post-partum Hæmorrhage, by Drs. A. H. and J. Ringland—Floating Kidney, its Causes, Diagnosis, and Treatment, by Dr. J. Sawyer—Pulmonary Consumption, by Dr. R. Douglas Powell—History of Medicine, by Robley Dunglison, M.D., LL.D., and edited by R. J. Dunglison, M.D.—On Spurious, Feigned, and Concealed Pregnancy, by Dr. T. M. Madden—Bower's Memoranda on Difficult Subjects in Anatomy, Surgery, and Physiology—Letheby on Food.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Pharmacentical Journal—Transactions of the Odontological Society, vol. iv., No. 6—The Clinic—Monthly Microscopical Journal—Science Gossip—New York Medical Journal—Food, Water, and Air—Medical Press.

APPOINTMENTS FOR THE WEEK.

May 4. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Star Depths."

6. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

Medical Society of London, 8 p.m. Annual Oration (by Mr. F. J. Gant, F.R.C.S.) and *Conversazione*.

Royal Institution, 2 p.m. General Monthly Meeting.

7. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Discussion on the subject of Pyæmia introduced by Dr. Burdon-Sanderson; after which the following Specimens will be exhibited:—Dr. Moxon, "Lymphoid Cancer of the Small Intestine." Mr. Hulke, "The Parts after Operation for Cancer of the Penis." Mr. Gay, "A Cyst; Sequestrum from the Tibia." Dr. Crisp, "Disease of the Cerebellum; Intussusception in an Infant." Mr. Arnott, "Multiple Exostosis." Dr. Hawkes, "An Intracranial Tumour." Dr. T. Sutton Townsend, "Ossified Aneurism of the Left Ventricle of the Heart."

Royal Institution, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

8. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Epidemiological Society, 8 p.m. Mr. R. Lawson (President), "On the Influence of Fever in Checking the Advance of Cholera."

Society of Arts, 8 p.m. Meeting.

9. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Light."

10. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Burney Yeo, "Case of Paralysis of the Senses of Smell and Taste following Concussion of the Brain." Dr. Greenhow, "Case of Progressive Muscular Atrophy." Dr. Baümler, "Case of Enteritis." Dr. Broadbent, "Left Hemiplegia, with Convulsions and Coma."

Quekett Micaoscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

Royal Institution, 9 p.m. Mr. Nevil Story-Maskelyne, "On Meteoric Stones."

VITAL STATISTICS OF LONDON.

Week ending Saturday, April 27, 1872.

BIRTHS.

Births of Boys, 1167; Girls, 1149; Total, 2316.
Average of 10 corresponding weeks, 1862-71, 2163 5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	702	713	1415
Average of the ten years 1862-71	705·8	669·6	1375·4
Average corrected to increased population	...	...	1513
Deaths of people aged 80 and upwards.	...	...	52

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	10	3	2	11	...	1	1	2
North ...	751668	19	19	5	1	17	2	7	...	4
Central ...	333887	...	6	..	1	8	...	...	2	...
East	638928	6	10	7	..	26	...	3	2	2
South	966132	12	13	2	3	23	1	6	1	7
Total	3251804	41	58	17	7	85	3	17	6	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·357 in.
Mean temperature	50·1°
Highest point of thermometer	69·7°
Lowest point of thermometer	37·1°
Mean dew-point temperature	43·1°
General direction of wind	S.S.W. & S.S.E.
Whole amount of rain in the week	0·38 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, April 27, 1872, in the following large Towns:—

Borongha, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending April 27.	Deaths Registered during the week ending April 27.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3312591	42·5	2316	1415	69·7	37·1	50·1	10·06	0·38	0·97
Portsmouth ...	115455	12·1	77	56	60·8	31·2	46·9	8·28	0·57	1·45
Norwich	81105	10·9	55	41	65·5	36·5	47·9	8·83	0·88	2·24
Bristol	186428	39·8	121	92	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	55	21	61·1	32·2	45·6	7·55	2·09	5·31
Birmingham ...	350164	44·7	275	149	62·0	33·3	46·2	7·89	1·17	2·97
Leicester	99143	31·0	75	54	67·5	32·0	48·5	9·16	1·33	3·38
Nottingham ...	88225	44·2	55	39	63·3	32·3	47·4	8·55	0·90	2·29
Liverpool	499897	97·9	369	243	58·0	35·2	47·2	8·44	1·85	4·70
Manchester ...	352759	78·6	293	198	...	...	...	...	...	...
Salford	127923	24·7	107	68	60·9	32·0	46·3	7·91	1·45	3·68
Oldham	84004	20·2	68	51	...	...	...	...	...	...
Bradford	151720	23·0	110	80	58·5	33·3	46·7	8·16	1·46	3·71
Leeds	266564	12·4	207	156	59·0	34·0	46·4	8·00	1·44	3·66
Sheffield	247847	10·9	178	149	63·0	33·0	47·2	8·44	1·79	4·55
Hull	124976	35·1	104	54	64·0	33·0	47·8	8·78	1·27	3·23
Sunderland ...	100665	30·4	83	54	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	108	56	...	...	...	...	...	...
Edinburgh	205146	46·3	121	140	58·0	29·0	41·8	5·44	1·60	4·06
Glasgow	489136	94·8	434	291	57·5	32·4	45·4	7·44	0·67	1·70
Dublin	310565	81·9	157	250	61·9	34·5	47·3	8·50	1·93	4·90
Total of 21 Towns in United Kingd'm	7394345	34·0	5368	3648	69·7	29·0	46·8	8·22	1·30	3·30

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·36 in. The highest was 29·72 in. on Friday morning, and the lowest 28·88 in. on Sunday, the 21st inst.

* The figures in this column are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 423.)

PART VIII.

CHRONIC CONSOLIDATION OF THE LUNG FROM PLEURO-PNEUMONIA.

Terminations by Expectoration, Absorption, and Loose Adhesion. Cacoplastic Deposits. Condensation of Lung, with Dilatation of Bronchi. Signs and Symptoms like those of Phthisis—Cases, Fatal; Anatomical Characters—Recoveries. Different views on Origin and Nature of Chronic Consolidations of the Lung.

I HAVE mentioned that the solid products of inflammation of the lung and its membranes vary in their amount, in their nature, and in their results. In the case of simple inflammation in previously healthy subjects, under judicious treatment the inflammatory deposit in the tissues of the lung is gradually dispersed, partly by absorption and partly by expectoration, the matter of which contains it either in a fibro-albuminous form or disintegrated in pus corpuscles.

[*Note added in* 1872.—Recent observations have given a better understanding of the processes by which inflammatory products are formed and dispersed. Not only is there exudation of an enriched and fibrillating liquor sanguinis from the blood-vessels, but the bioplasm itself, in the form of amœboid sarcophytes, migrates and multiplies, as do also the germinal nuclei of the cells of the adjoining connective and other tissues. When healthy inflammation subsides, all these products are resolved or dispersed, some being absorbed into the lymph-streams of the lymphatics, others being thrown off on adjacent mucous surfaces in the form of mucus or pus-cells, which are only modifications of the original sarcophytes—the latter elimination being aided by the chemical and physical change of the material from viscid and colloid to diffluent and fatty. Thus pneumonia ends favourably with opaque, ripe, or "concocted" expectoration, which afterwards gradually gives place to the natural mucous secretion. The case of predominant suppuration is not an equally favourable one, as it involves a hyper-oxidation of the plasma which carries the solvent process too far for the integrity of the tissues. But this is not under our present consideration.(a)]

The lymph thrown out by inflammation on the pleura is also partly absorbed; but generally enough remains to form bands of adhesion between the pulmonary and costal pleura; and as the lung recovers its expansibility these adhesions are so much stretched and loosened by the respiratory movements as not to impede them in any material degree.

It is different when, either from the unhealthy state of the blood, or from the long continuance of the inflammation, the inflammatory deposit, either in the lung or on the pleura, is deteriorated in quality. It is then less capable of absorption when the quantity is small, or of organisation when more abundant; and it is apt to remain obstructing the textures, or clogging and binding down the membranes, to the permanent injury of the functions of the part. Thus, after prolonged inflammation the lung may remain consolidated, and more or less impervious to air, especially in the lower and middle lobes. In this case the side remains more or less dull on percussion, chiefly behind, with little or no breath movement or sound, and sometimes with loud tubular sounds of breath and voice to a very remarkable extent. These loud bronchial sounds are caused, not merely by the increased density of the lung conducting the sounds to the surface, but also by the dilatation of the bronchial tubes themselves.

It is nearly thirty years since I pointed out this as the most common origin of dilatation of the bronchi, yet even now it scarcely seems to be generally understood.(b) Yet the process is simple enough. In cases of prolonged pleuro-pneumonia, after the absorption of the effused fluid, the inspiratory forces tend to draw air into the lung; but, as this cannot penetrate into the condensed tissue, it presses on the walls of the tubes, and expands them to far beyond their natural dimensions. The membrane lining these dilated bronchi is often in an unhealthy state, secreting more or less muco-purulent matter, which in some instances becomes offensive in consequence of being retained through want of power of expectoration, which is lost because it depends on the act of expelling air from the vesicular tissue beyond, which is now condensed, and receives no air. Dilatation of the bronchi after pleuro-pneumonia is liable to be mistaken for phthisical lesions. Deficient motion, dulness on percussion, sometimes with the cracked-jar noise, loud bronchophony, or even pectoriloquy, with cavernous breathing, or gurgling if there be liquid in the tubes, form a close resemblance to the physical signs of tuberculous cavities. To these are added cough, opaque expectoration, and shortness of breath; and the likeness is sufficient to deceive many ordinary observers. The distinction lies chiefly in the situation and extent of the consolidation, and in the absence of the tendency to spread to other parts which exists in phthisis. Pleuro-pneumonia usually affects the lower half or two-thirds of the lung, the base being quite dull, and the common site of dilated bronchi is at or below the scapula; whereas the lesions of phthisis usually commence at or near the apex, whilst the lower parts of the lung are less affected and more pervious. In the simply inflammatory consolidation of the lung there is more complete and general dulness, contraction, and often hardness of the affected parts, which feel like unyielding wood as the fingers strike them. This may also occur in connexion with masses of tubercles, or the cavities which they produce, for the reason that here also there is often some of the same hard contractile deposit; but in this case it is more partial, and differing in the situation as just mentioned. There is also commonly a disproportion between the physical signs and the emaciation and other general symptoms which occur in phthisis. Dilated bronchi, although causing such marked signs, are attended with much less wasting and disorder of the general health than tuberculous lesions. Again, for the same reason, dilated bronchi may exist for many years in persons with tolerably good health; or at least there is not the same tendency to spread and invade other parts that we find in phthisis. In fact, one is a local disease; the other constitutional as well as local.

The distinction may therefore be sufficiently marked in many instances; but I must not omit to point out that there are cases in which one set of lesions passes into the other. A person with dilated bronchi ultimately becomes phthisical. The chronic consolidations left by pleuro-pneumonia are commonly more or less *cacoplastic*. If they do not degenerate further they only partially cripple the organs by their density and contraction, and, if extensive, may cause increasing vascular obstruction and end in emphysema or dropsy. But these deposits are liable to further degeneration into *aplastic* matter, which, in its nature and tendencies, is not to be distinguished from yellow tubercle. It is under circumstances which deteriorate the general health that this degeneration is apt to occur; and then we find not only the condensed lung softening into cavities, but grey tubercles are formed in other parts, showing that the disease has now become general.(c) But we have here to do only with the contractile consolidations, and have now further to add a few examples illustrative of the subject. The first two are some of the earliest instances in which I discovered this affection.

Case 1.—Edward P., aged 17, admitted to St. George's Hospital November 20, 1837. After exposure, took cold last April, and has since suffered from increasing shortness of breath, weakness, and loss of appetite and flesh; little pain or cough, and no expectoration. In July legs began to swell, and since the abdomen, which is now large and fluctuating. Lips livid; veins in neck distended; pulse 130: urine scanty. Whole

(a) See Chapter vii. ("On the Nature of Pus and Suppuration"), "Pulmonary Consumption," etc., p. 50.

(b) Some time after I had published this explanation, Dr. Corrigan, of Dublin, described a similar condition under the term "Cirrhosis of the Lung." He considered the deposit to be a peculiar tissue like that affecting the liver; and, strangely enough, ascribed the *dilatation* of the tubes to the *contraction* of this tissue around them. Assuredly this contraction would have just the opposite effect were it not for the pressure of the air drawn into the tubes by the inspiratory effort. This pressure is the efficient cause of the bronchial dilatation. I have endeavoured to show that the contractile property is common to cacoplastic deposits in many organs. ("Principles of Medicine," third edition, p. 463.)

(c) *Footnote added in* 1872.—The subject of chronic consolidations and contractions of the lung has attracted much attention since these lectures were delivered, and has received valuable contributions from Dr. Andrew Clark and others; but I have met with no facts which invalidate the views which I have here, and long before, held on the subject, and which are more fully developed and applied in our recent work on "Pulmonary Consumption," etc., particularly in chapter viii.

right side contracted and dull, except an obscure tubular stroke in mammary region. Loud diffused bronchophony in parts, pectoriloquous in all anterior upper regions; coarse crepitus below. Respiration puerile, without bronchophony, on left side. Diagnosis: Condensed lung and dilated bronchi from pleuro-pneumonia. Died on December 19, after increased dyspnœa and dropsy of legs and abdomen. Right pleura everywhere most firmly adherent by tough fibro-cartilaginous matter, in parts a quarter of an inch thick. Lung contracted, quite solid, hard and heavy, of dark reddish colour; chief bronchi generally dilated and empty. Left lung much congested, and some bloody serum in left pleura. Pericardium universally adherent by dense tissue a quarter of an inch thick, and much bloody serum in abdomen. Liver large, with thick false membrane on upper surface; the under surface studded with numerous hard semi-transparent bodies, of sizes from a pin's head to a small pea, adhering to peritoneal covering. Several similar bodies on left pleura and between the lobes of the lung.

Case 2.—Anna B., aged 54, admitted into St. George's Hospital June 13, 1838. Three months ago caught a severe cold, followed by pains in the chest, and has ever since suffered from increasing shortness of breath. Lately the pain and difficulty of breathing have prevented lying down. Cough without expectoration; palpitation; legs œdematous: urine scanty and high-coloured; pulse 100. Left front of chest collapsed, motionless, and quite dull. Loud cavernous breath, and perfect pectoriloquy down to fourth rib, under which heart in contact with walls. Less dulness and some vesicular breath below axilla and in posterior region. Stroke clear and breath puerile in right chest. Short filing with both heart-sounds. Dyspnœa increased, and she died on the 19th. A pint of clear serum in lower part of left pleura. Lung compressed, and strongly adherent to upper front of chest. Lower lobe less compressed, and contained some air, but upper lobe quite dense, of a slate colour, with whitish bands pervading it. In it were three tubular cavities of the size of fingers, which on examination proved to be dilated bronchi ending like the fingers of a glove. Some traces of circular fibres and lining membrane. The pulmonary tissue around and beyond quite dense and grey. Right lung generally healthy, but some indurated grey masses near apex. Dilated hypertrophy of both sides of the heart, and some thickening and rigidity of aortic valves.

With these tragic but instructive terminations of Hospital cases let us contrast the results of private practice, some permanently successful, but others showing eventually the same fatal tendency.

Case 3.—A hale, florid-looking old gentleman of 70 consulted me in December, 1848, on account of cough with opaque expectoration, and pain in the right side, from which he had suffered more or less since an attack of inflammation eight years previously. The cough never quite left him, and was occasionally severe and accompanied with copious expectoration of heavy opaque matter, like that of phthisis. In the right side, at and below the scapula, there were dulness, pectoriloquy, cavernous breath, and occasionally gurgling; and to a less extent the same signs were on the left side also. With generous but careful living, often aided by cod-oil and varied tonics, this gentleman retained his good looks and tolerable health, only having occasional attacks of increased cough and expectoration, but rallying well from them, till 1862, when his legs began to swell, and, together with the infirmities of age, the respiratory organs became more embarrassed, and he died at the age of 84. Thus life was prolonged in considerable comfort for fourteen years, notwithstanding the ugly aspect of the case; not a bad example of a *minor success* in diagnosis and practice. After death both lungs (but chiefly the right) were found extensively adherent and partially consolidated in their lower and middle portions, and in these the bronchi were largely dilated to from three to six times their natural dimensions. The consolidation was tough and firm, and of a dark-reddish colour, almost black in parts —not at all like tubercle in any of its forms.

Case 4.—A gentleman, aged 24, since an attack of inflammation three or four years before, had cough and expectoration, varying very much in amount; and in 1853 I found dulness and large tubular or cavernous sounds at and below the right scapula. Under careful treatment and avoidance of fresh cold, he gradually lost the cough and expectoration. I saw him again in 1858, when he was quite well, except shortness of breath from an occasional cold; but the bronchophony and dulness were still there, and from their stability I regarded them as caused by dilated bronchi.

Case 5.—About twenty years ago I was consulted by a gentleman, aged 40, of sedentary habits, who had, during two or three years, repeated attacks of inflammation of the lungs and pleura, and still suffered much from short breath, cough, and muco-purulent expectoration. The whole left side was dull, motionless, and contracted, and presented to the ear a most noisy bronchophony over a great extent. The vocal vibration was so strong in the side that it could be felt by anyone walking arm-in-arm with him. The consolidation and contraction of the lung in this case were so extensive, and interfered so much with respiration and circulation, that dilatation of the heart and general anasarca gradually ensued, and the patient died in about three years. The whole of the left lung and the lower lobe of the right were found in a state of tough dark-reddish consolidation, with many dilated bronchi but no tubercles. Pleuræ firmly adherent everywhere.

A late eminent ophthalmic Surgeon had a very similar affection following pleuro-pneumonia, after which he convalesced, but he was permanently short-breathed; and had he, as advised, withdrawn from all exertion and excitement, he probably might have lived for years. He died suddenly at a public auction, where he had gone to bid for an estate.

The following cases show the more successful results of careful management:—

Case 6.—A gentleman, aged 43, consulted me in May, 1855, having short breath, cough, and much loss of flesh and strength, after an attack of inflammation in the left chest three months before. The whole left side was much contracted, motionless, and dull. No vesicular breath-sound could be heard in any part; but loud bronchial voice and whiffing in the mid-regions posteriorly. The heart was drawn higher up and further to the left than usual. There were no moist sounds, and the expectoration had ceased. The treatment ordered comprised cod-liver oil with a nitric acid tonic; night and morning frictions with a stimulating liniment containing iodine; good but regulated diet, with a little stimulant; gentle exercise in the open air, in carriage, on horseback, and on foot, gradually increased. In two months all cough and pain had ceased and there was great improvement in flesh and strength; but the condensed lung was little changed, and the breath, though better, was still short on exertion. However, he considered himself sufficiently well to fulfil his engagement to be married, which had been postponed by his illness. A year after he continued in fair health, and then I found some vesicular breath in the upper third of the left lung, the lower part still remaining collapsed and impervious. I have not seen him since, but heard of him as quite well and active in 1861.

Case 7.—A gentleman, aged 39, whose grandmother died of phthisis, consulted me on September 19, 1856. Two months before, after much exertion, was laid up with a feverish attack, which was called gastric, but it was attended with cough and expectoration, once bloody; and the cough has continued with opaque sputa, loss of flesh, and night sweats. Defective motion, and hard dulness of whole right chest, most marked in central and upper parts, where are large loud tubular sounds and strong vocal vibration. Some crepitus in lower parts, but no vesicular breath-sound. To take cod-liver oil in mixture of sulphuric acid and orange infusion. He passed next winter at Rome with little improvement, the emaciation, cough, and expectoration continuing. State of lung much the same: extensive consolidation, with loud tubular sounds, but no softening. The winter of 1857-58 was spent at Nice; and during this year a gradual improvement took place in flesh —9 lbs. were gained—and cough and expectoration ceased. Still much dulness, with tubular sounds, but more motion, and some vesicular breath. October 4, 1859: Last winter at Rome, with more strength and activity. Has since gained much flesh. Motion and sound on percussion in right chest much improved. Dulness and tubular sounds still at and above right scapula. To take iodide of potass, quinine, and nitric acid. December 6, 1860: Generally well, except occasional pain in right chest. Movement and stroke-sound of right chest still not equal to those of left; but good vesicular sounds in most parts; tubular at scapula. 1866: Quite well in health; still some tubular sounds and dulness in upper right. 1871: Continues well.

Case 8.—A gentleman, aged 32, who had lost a brother and sister from consumption, consulted me January 25, 1855. Since an attack of left pleurisy, a year before, had suffered from short breath, weakness, and occasional pain in left chest, but no cough or expectoration. Whole left side of chest contracted and quite dull, with only weak breath in upper portion, and loud tubular voice and expiration in central parts. Heart felt over large space in contact with chest-wall. Had tried cod-liver oil, but, as it caused diarrhœa, gave it up. To take oil

with tannic acid and orange mixture, and use an iodine liniment on chest. In May he was much improved in flesh, but not in strength or breath. Less dulness, but no more breath. To take iodide of potass and liquor potass and sarsa. During the summer was at Ems, where the waters proved strongly diuretic, and his strength and breath improved, but he has now slight cough. Further diminution of dulness, and slight return of breath-sound and movement. The improvement gradually went on during the following year, when he had a succession of boils, for which he was ordered chlorate of potass with nitric acid and quinine. In 1857 the chest continued to improve, but, being thinner and weaker, he was again ordered the oil with quinine, which was taken for some months with benefit, and resumed in 1858, on account of cough and yellow expectoration, but no crepitus or sign of cavity. In the last examination—March, 1859—there was weak breath-sound and clearer percussion in left chest. Still tubular at left scapula. This patient was reported as improving in breath and well in health in 1861. Not since heard of.

Note added in 1872.—Some cases exemplifying the transition of inflammatory consolidation of the lung into phthisis are omitted, as abstracts of these have since appeared in our work on "Pulmonary Consumption"; cases 29, 37, and 40 are especially referred to. Besides Sir D. Corrigan and Dr. Andrew Clark, whose views respecting chronic consolidations of the lung have been alluded to, several other writers have given descriptions of these changes in the pulmonary structure, in various ways interpreting their nature and origin. The views taken are principally of two kinds, one after the example of Sir D. Corrigan, ascribing the pulmonary induration to the growth of a new tissue in the lung, which he called cirrhosis, and to which he imputed the paradoxical property of dilating the bronchi and obliterating the air-cells. This tissue, of fibroid structure, is supposed to spread in bands through the lung texture until it converts it into a tough solid mass. The other is the view originally held by Andral and Chomel with regard to these chronic consolidations: that they are the result of an inflammatory process. This view I made more applicable by showing how the inflammatory obliteration of the air-cells of the lung by pleuro-pneumonia caused the dilatation of the bronchi by expending the inspiratory forces on the latter; and I further proved its connexion with the cacoplastic and contractile formations of phthisical and scrofulous subjects. These two opposing views are strongly represented in the recent volume of the "System of Medicine," edited by my friend and former pupil Dr. Russell Reynolds, in the elaborate articles of Dr. Wilson Fox and Dr. Bastian. Under the diverse titles of "Chronic Pneumonia" and "Cirrhosis of the Lung," the two Professors at the same college describe the same disease, exemplified by the very same cases, and yet arrive at totally opposite conclusions as to its nature. Such incongruity in an educational work, however interesting and exciting it may be to the clever controversialist, must prove perplexing to the student and to the young Practitioner.

Although Dr. Wilson Fox makes no allusion to my long-published views on the subject, he has adopted very similar opinions; and, referring to his article for further details, I will briefly mention the chief reasons which originally led me to conclude that these chronic consolidations are chiefly due to inflammation.

In not a few instances the affection can be traced to an inflammatory attack which had occurred months or years previously. This was the case in all the eight examples which I have recorded above, and in some of those cited by Drs. Fox and Bastian; but the previous history of several is imperfect, and latent forms of inflammation, which are common enough, might probably have occurred in those cases in which no former attack is noticed.

But it is in their anatomical characters that these pulmonary consolidations exhibit the most striking proofs of their inflammatory origin. In their situation, affecting principally the lower and middle lobes, and in most instances limited to one side, like pneumonia and pleurisy; in the redness of the consolidation, if not too chronic, resembling hepatisation or carnefication; in the almost constant co-existence of strong pleural adhesions, often thick, dense, and cartilaginous, like the deposit in the lung tissue—we find, it seems to me, conclusive evidence of an inflammatory origin. The remarkably dense and thick adhesions (stated by Dr. Bastian to have been present in twenty-two out of thirty cases) are further proofs of the share which the pleuritic products have had in modifying the condition of the lung: first by effusion (liquid and solid), subsequently when the liquid was absorbed, by the solid lymph agglutinating and contracting—all tending to compress and obliterate the alveolar texture, its place being occupied by collapse of the walls, by dilatation of the bronchi, or by both. Simply pneumonic consolidations, if of a contractile tendency, may lead to dilatation of the bronchi without any pleural affection; but such cases are exceptional. The rule is, that contractile disease involving a large part of the lung has its origin in pleuro-pneumonia.

It would take too much space to describe minutely the pathological nature of these cacoplastic consolidations of the lung. They are variously combined with hyperplasiæ of the elementary structures of the lung, especially the alveolar and the connective tissues; but their chief material consists of the fibrinous exudation from inflamed vessels, which in such cases predominates over the corpuscular matter, and therefore tends to form a dense fibroid solid, disposed to contract or wither, but little, if at all, to soften or caseate. I have discussed their nature and their relation to tubercle and other phthinoplasms in the fourth, eighth, and tenth chapters of our recent work on "Pulmonary Consumption."

(*To be continued.*)

INTRODUCTORY LECTURE

TO THE COURSE

ON PSYCHOLOGICAL MEDICINE.

DELIVERED AT KING'S COLLEGE, LONDON.

By EDGAR SHEPPARD, M.D.,

Professor to the College, and one of the Medical Superintendents of Colney Hatch Lunatic Asylum.

Gentlemen,—This is a new chair, and I am a new professor. The Council of King's College, following the example of other metropolitan schools, have in their wisdom thought fit to institute psychological teaching; and, honouring me as an old student of this place, and one largely familiar with insane life, they have charged me with the responsibility of leading you within the precincts of that domain which is peopled alike by the wildest and the happiest, the tamest and most mournful, of mankind.

Now, you will naturally expect that I should seek to magnify the importance of that which I am about to bring under your notice, and which is the subject of my specialty. But really I have no desire to do anything of the kind. You will hardly expect me, at all events, to *under*-rate it. For who can lightly estimate that which is of such stupendous interest, as embracing the higher part of man's nature? Whether we are descended (as some suppose) from simian conformations, or (as the majority of men think) there is an impassable gulf, which time and development can never bridge over, between those odoriferous travesties of humanity and ourselves, it is equally certain that the breath of life has been breathed into us by Omnipotence, and we are supposed, in contradistinction from all other living creatures, to be bound for a larger and more enduring destiny beyond the confines of this world.

To have this higher part, then, deranged, "out of gear," and not perfectly *d'accord* with its surroundings, must of necessity be a very serious matter. It is my province to speak to you of these things; and the problem which I have to solve is—How shall I best fulfil the mission which is involved in my acceptance of this Psychological Chair? Not, as it seems to me, by giving you a long and elaborate course of lectures upon mental science—upon what the metaphysicians term "inner consciousness" and "spiritual essences." The tendency of the age is, unquestionably, to undue amplification. My error, at least, shall not be in this direction. For I have before me the large number of lectures which you have been called upon to attend and digest; the immense demands which have been made upon your time and your energies; the varied character of your pursuits and studies. And I do not think I shall be doing justice to you if I extend this course beyond seven or eight lectures. Therein I shall give you a general outline of insanity, a simple classification, a sketch of the most important forms, and the treatment of disease. For more than this, according to your several tastes or future intentions as to practice, you will consult the recognised text-books.

From this my intention you will gather that I regard the measure of my usefulness to you as not lying in the number of my words, but in the subjective force and vigour which I can bring to the portraiture of disease, as also in the spirit in which you receive my utterances. Nor shall we be without objective help and assistance. The Visiting Committee of Colney Hatch Asylum, whose Physician and servant I am, have

allowed me, under certain restrictions, which I will explain to you at the end of this lecture, to give you an insight into asylum life and practice, and to illustrate my teaching here by the variety of maladies to be met with there. I have pledged myself that you will not abuse this privilege. Of course you will not. You are gentlemen, and students of King's College.

This first lecture will be general in its scope, and as comprehensive as I can make it without touching upon any of the special forms of insanity.

1. As to the Prevalence of Insanity.

Now, by the last Official Report of the Commissioners in Lunacy it would appear that the number of lunatics, idiots, and persons of unsound mind in England and Wales was close upon 57,000; the ratio per 1000 of the population being 2½. Ten years ago the ratio was not quite 2 per 1000. This is the "nearest available approximation to the truth" upon official registrations and returns. Yet still it is a debatable and disputed question as to whether insanity is or is not on the increase. Drs. Maudsley and Robertson are on the negative side; but I cannot help thinking there is some fallacy in the statistics which lead to such an inference, and I am disposed to give an affirmative adherence to the proposition. Apart from statistical evidence (which is often very untrustworthy), our inclination to one side or the other will be much coloured by the meaning which we attach to that conventional term "civilisation." If it implies all that our optimists say it implies—the practice of all the virtues and a greater capacity for all that is good and noble—then you will be disposed to hold to the opinion that insanity can*not* be on the increase. But there is another side to the picture. To me, as I view "this vast rolling vehicle the world, the end of whose journey is everywhere and nowhere," "civilisation" may but express wear and tear, and high pressure. And the product of these is deterioration of nerve-tissue and general impairment of our material organisations. You yourselves are sufficiently acquainted with all that is going on about you to have learned that civilisation is really a term singularly inexact and indefinite, and admitting of great latitude of interpretation. It involves an improvement, no doubt, of the social wheat; but there is to be considered also its inevitable correlative—a frightful multiplication of the social tares. If our schools and seminaries, and Hospitals and churches have multiplied, so also have our casinos and gin-palaces and betting-rings; the whole area of speculation is a hundred-fold enlarged; all the energies of life are multiplied and intensified; and men shriek at each other on the Stock Exchange who used to converse in quieter and less "civilised" times.

2. Predisposing Causes of Insanity.

From what I have observed of insane etiology I have come to the conclusion that a great many seemingly small and trivial circumstances go towards conditioning a disturbance which ultimately eventuates in disease. Some of these circumstances are unavoidable. For instance—if nature has given you a pair of "bandy legs" you must put up with them and make the best of them; but by provoking the ridicule of your schoolfellows they may be a constant source of irritation, and so endanger the integrity of your intellectual tenement. If one has a squint, or a halting gait, or a tendency to blush unduly, he is equally exposed to derision; and it is not everyone who can bear it with philosophy and indifference. Others of these hindrances to smooth sailing are not imposed by nature, but by the thoughtlessness and vanity of your nearest relatives, who, acting with the best possible intentions, or with no intentions at all, bring about the most disastrous results. If I call my son Pisistratus and my daughter Penelope I am doing them an injustice to which they can have no claim at my hands. The patronymics of many of us are sufficiently hateful and hurtful, without further invitation of the Church's aid to produce nominal disfigurement of individual men. Many a boy at a public school has been ruined by the bantering and bullying to which his name has exposed him. The neurotic diathesis (of which you will hear so much before you have done with insanity) is evoked and developed by the petty teasings of tailless tyrants; but the tyrants were stimulated into action by the thoughtlessness of loving parents and guardians.

You may call these things trifles, but indeed they are not so; and if you have brothers and sisters marrying, or intend some day yourselves to marry, a wise reflection upon the possible results of eccentric nomenclature may preserve you and your children from much unnecessary sorrow.

It is known to you that the great secret of successful horticulture lies in ascertaining the treatment required by different plants—their temperature, their atmospheric surrounding as regards moisture and light, and the nature of the soil which they can best utilise and appropriate to their individual needs. Now just the same care and judgment are required in that social garden which we call the world. The natures of the young must be studied—their parental antecedents (where practicable), their proclivities, their temperaments, their habits, their talents, their aptitudes. Without this study there can be no educational success that is not empirical. The present Bishop of Exeter, and the present Master of University College, Oxford, are noble instances of what can be achieved by force of character and discernment in the culture and training of individual minds. I say it as a layman, and as an alienist Physician, that no one can overestimate the obligations which the age is under to those who have so nobly sustained the previous reputations of Rugby and Marlborough. Such men raise up a barrier against the *neuroses* by co-ordinating and blending into harmonious working the "morality of clean blood" and the morality of the Christian life.

And if this study and this discernment are so essential with natures which, however different, are supposed to be up to a healthy standard, how much more are they required where there is any tendency to run into the morbid and abnormal. The potentiality of example is great; and it is our first duty as Physicians and philosophers to counsel the removal of young persons from all those surroundings which are favourable to the development of latent mischief, as in the case of a bad ancestral type.

I have written elsewhere, and I here repeat—"A nervous child should be placed in a strong-minded family; that is, with those who have the *will* in complete domination, never allowing themselves to be betrayed into doubt or vacillation. The melancholy should consort with the cheerful; the unduly hilarious with the more sober-minded and sedate; the wandering and vacant should be won to interest by comparatively sensational modes of placing things before them, their perceptive and reflective faculties being alike encouraged; above all, the timid and introverting, having exaggerated religious feelings, should be placed with one of the school which is muscularly Christian and philosophically Socratic. These adjustments of individual temperaments are the basis of true education, both in those who have and those who have not passed the line of mental integrity; and society owes all her well-being to their observance. Each plant to its own peculiar soil: thus only can we discern its capacity for growth and beauty."

Believe me, these things are worth considering. To neglect them is to repudiate the basis of a true and lucid psychology; to study them is or should be the power to prevent evil.

In some cases, indeed, your knowledge will only be a power to modify or temporarily suspend the inevitable. In a large number of persons the hereditary law is so overpowering and impervious that there is no alternative but to yield to its behests. "Multitudes of human beings (says Dr. Maudsley) come into the world weighted with a destiny against which they have neither the will nor the power to contend; they are the stepchildren of nature, and groan under the worst of all tyrannies, the tyranny of a bad organisation." Against such a state of things you are powerless. And this sense of powerlessness must in the very nature of things lessen your estimate of individual importance. The units, it would seem, are nothing; the totality is everything.

> "And the individual withers,
> And the world is more and more."

Now, where this bad organisation involves what Dr. Anstie calls the active or dormant hereditary neurosis, or what we term the insane temperament, the future of its subjects cannot be very bright or cheering. There is about them a want of uniformity; their cranial development is not always satisfactory; the features are irregular, one part of the face being bright and expressive, another part very much the reverse. They are given to facial twitchings, an occasional squint, convulsive movements of the limbs; all the actions are ungainly, and lack that muscular co-ordination which is the life of symmetry. In early life they may have stuttered, or had occasional fits; and it is somewhat singular that they may have been unusually stupid or unusually precocious. By only "thin partitions" are the two states separated. Those who are charged with any form of neurosis are easily tilted off their equilibrium; eager, excitable, impetuous—they are constantly throwing off electric sparks. They jump and dance rather than walk through life. The puberty of these creatures is premature; the sexual appetite is strong, and they are given to habits of self-abuse, initiated either by bad example or the innate impulses of an erethistic temperament. Anyhow, the

effect is to aggravate their morbid condition. Happily the power of propagation is not commensurate with the intensity of their lust, and there is a tendency in all faulty organisations to die out and become extinct. I need scarcely tell you that intermarriages with such should in every way be discouraged. It is a dreadful calamity—the repetition of an insane or a neurotic temperament. The young men and women of our day (and I suppose it has been the same in every day) are too much given to marry without inquiry as to the healthy antecedents of those with whom they ally themselves. Mothers naturally enough conceal their daughters' ailments, and a man finds, when it is too late to turn the discovery to advantage, that he has plunged into the arms of hysteria (which is a neurosis), or leagued himself with an indolent and flatulent female addicted to rhubarb and red lavender. But there can be no excuse for you, as physiologists and men of science, getting into this sort of trouble. You would not buy a horse without a warranty, or attempt to breed cattle without starting with a healthy stock. Be cautious and intelligent observers, and your eyes will soon light upon something which will indicate to you safety or danger. I do not ask you to receive as wisdom the satire of Leibnitz, who said—"Marriage is a good thing, but a wise man ought to consider of it all his life." But I do ask you to take advantage, during your pupilage at King's College, of the suggestion of Balzac, who said—"Every man should have dissected at least one woman before he marries."

If a faulty organisation is a desperate, I need scarcely tell you that a sound organisation is a splendid heritage. It is the greatest of natural gifts, for which one cannot be sufficiently thankful to one's ancestors. The somatic integrity of some is so great and continuous that they resist everything in the shape of morbific processes. Like the son of Peleus, they have been dipped in some sanitary Styx, and washed with invulnerability.

3. The Hereditary Nature of Insanity.

This question has already been incidentally touched upon in our remarks concerning temperaments and education. Esquirol has remarked that of all diseases insanity is the most hereditary, and that it is more frequently transmitted through the mother than the father. No doubt a check will be put upon this tendency by the strong-minded women who, dissatisfied with their natural position, are now striving to make themselves men. The worst evil I can wish those ladies is that their ovaries may become shrivelled, and that they may be compelled to shave. Anyhow, the more frequent transmission through the maternal channel will more than justify the remarks which I made just now as to a prudent selection from the many candidates for the nuptial bed who will in due course present themselves to you.

4. Prevalence in the Two Sexes—and in Town and Country.

There has been a great difference of opinion as to whether insanity is more frequent in the male or in the female, and the large aggregation of women in our different asylums has led to a belief that they are more obnoxious to mental alienation than ourselves. But a source of fallacy is obvious; *existing* cases do not represent *occurring* cases. Women do not die and do not recover as we do; hence they accumulate. It is pretty certain that the *occurring* cases in the two sexes are about equal; perhaps an excess slightly obtains in the males. Insanity occurs more frequently between the ages of 30 and 40 than any other decade. It is more frequent in the summer than in the winter months, and among the agricultural than the town populations. Regarded superficially the latter circumstance is somewhat puzzling, and in contradiction to what one would naturally expect. The vices and the wear and tear of great cities, with all the attendant evils of dense gregariousness, would seem to invite disease in a larger ratio than in the country. But I take it, as a rule, an agricultural is worse fed than a town population. The cold and comfortless apathy, due to imperfect nutrition, of many of our farm labourers and their families is probably owing to this fact. The glorious hills, and the sunny valleys, and the invigorating air are not advantages sufficient to compensate for the loss of that which supplies nerve and muscle, animal heat, and vital energy. Children half-clothed are turned into fields to frighten crows from sunrise to sundown, a hunch of bread being their only sustenance, and they never get really warm from November to June. Animal food is unknown to them as an article of diet, though fat hogs and fatter yeomen are about them everywhere. Starved and stunted and congealed, they cannot learn; but they live to marry and be given in marriage, and repeat themselves in even a less promising form—if that were possible. No doubt the form of insanity to which the agricultural labourer is liable is of a less acute kind (dementia and imbecility) than that of the busy artizan.

5.—The Exciting Causes of Insanity.

The causes—the exciting causes—of insanity are, I need scarcely tell you, very varied, and are comprised under two heads—physical and moral—of which the latter are by far the most productive. But it is not always easy to define with anything like accuracy the factorship of mental disease; and it is only right I should tell you that my experience of asylum statistics is that they are utterly unreliable. Let me illustrate this unreliability, and point out the reason of the same.

An insane person, who may have been ill six months, is taken to the workhouse. He is kept there for a few days, when, being found unmanageable, he is transferred to the county or borough asylum, on the certificate of the Medical officer whom the attesting magistrate may happen to call in. In this certificate a statement is required as to the duration and the cause of disease; and without any inquiries being made on these important matters, the *duration* is commonly dated from the day of the patient's admission into the workhouse, while the *cause* is written down as "unknown." The mistake is obvious to the experienced alienist, and our accuracy is at once confirmed on the patient's friends visiting him at the asylum.

I have over and over again admitted patients far advanced in general paralysis, the duration of whose malady has been certified as seven days. We have no power to alter the record, and it goes, with many other lies, to make up our statistics, which are really nothing more or less than formulated falsehoods.

In another way, though to a less extent, and in a less culpable (because partly unavoidable) manner, the element of unreliability is introduced in connexion with causation. As thus:—

A man holding a good situation, upon which his family is dependent, from some cause or other loses it. No longer a bread-winner, he desponds—becomes the subject of melancholia, and is certified as insane from a *moral* cause: loss of employment. But the loss of employment had already involved a diminished supply of food before the insanity manifested itself, and thus physical privation may have led to his despondency, and been the real factor of his disease. Probably both causes contributed to his unhappy condition, but the exacting requirements of tabulation render imperative our adoption of the physical or moral columns in our statistical return.

Again, a man loses his wife or child. In a month he is insane, and his insanity is assigned to a *moral* cause. But it comes out that the loss led him to drink inordinately; the *physical* element is overlooked, and we write down *moral*. Probably, as in the previous case, both causes had their share in bringing about the mental derangement which has now resulted in loss of liberty. So that the etiology of insanity is beset with difficulties and complications, which limit the exactness of our knowledge, and demand the calmest judgment of the observer.

It is obvious that anxiety and losses, and trouble of every kind, must play a very conspicuous part in the factorship of insanity. Undue pressure put upon the ideational centres in the shape of study is also one of the causal phenomena (it really may be considered partly physical and partly moral), of which we must not lose sight. It is said that the competitive examinations now everywhere established in the public service are telling disastrously upon some of the finer-strung natures. It might be found on investigation that they are of the dormant, if not active, neurotic temperament.

Much evil has been thoughtlessly effected by *fright*. Impress, I beseech you, upon all young persons in whom you are interested the folly and wickedness, even in play, of terrifying their schoolfellows and companions. I am sorry to think that some even of our teachers and preachers need a lesson and a warning upon this subject. Children have been stricken into dementia by the sudden jump from behind a door of a concealed playmate, or startled into epilepsy by an unexpected scream, or thrust into the outer darkness of confirmed melancholia by the "rockets and blue-lights" of a fiery preacher. The transition is natural to *religion* as another fertile cause of insanity. There are some I know (and they belong to a theological school which I need not particularise) who affirm that it is impossible for religion to produce mental aberration. Of a truth, I know not why that which contains the largest controversial element of things known to men, and which has produced more bitterness, cruelty, and bloodshed than anything else in the world, should not derange the world. The fact that it can do, and has done, these things, and yet, pointing with the eye of faith to the untried and unseen, give to millions

unmeasured consolation, is alone evidence of its extraordinary power both for good and for evil.

I should be sorry for you to misunderstand anything which I say upon this very difficult and delicate subject. I should wish you to regard it in a calm and philosophical and unprejudiced spirit; and you will then be led to acknowledge that some minds are so constituted, having such inherited proclivities or acquired tendencies, that, put religion before them how you may, they are certain to make shipwreck of it—the magnitude of its teaching is too much for them. There are others who are repelled by a creed which bristles too formidably with shafts and arrows, but are to be won by gentleness and conciliation. It is the doctrines of "verbal inspiration of Scripture," and "election," and the "personality of the devil," which are so fatal to the young and the sensitive and the uneducated, of whom I see so many. I could name, if I chose, more than one Nonconformist preacher known for their power to "stain the imaginations of young children (as Mr. Lecky expresses it) by ghastly pictures of future misery," to whom I am indebted for instructive cases of religious mania. These "foolish and abominable denunciations" (as Dr. Conolly called them) achieve incalculable mischief, and consign many nervous and impressionable subjects to a misery as hopeless even in this life as has been charitably predicted for them in the next.

(To be continued.)

ORIGINAL COMMUNICATIONS.

A CASE OF MEDULLARY TUMOUR OF THE FEMUR, WITH REMARKS.

By F. A. BULLEY, F.R.C.S.,
Consulting Surgeon to the Royal Berkshire Hospital, Reading.

Ann M., aged 48, was admitted into the Royal Berkshire Hospital, April 23, 1867, on account of a large, somewhat globular, elastic swelling, occupying the lower part of the left femur. The integument covering the enlargement is tense and shining, with two or three large tortuous distended veins ramifying over it in different directions. The circumference of the largest part of the swelling, which is just over the centre of the condyles, measures 20⅝ inches, whilst that of the sound limb at the same part is fourteen inches. The lower part of the tumour seems to terminate somewhat abruptly opposite the articular surfaces of the condyles, the knee-joint and the upper extremity of the tibia being apparently unaffected by the disease. She suffers a great deal of pain in the part, especially at night, and she has not been able for a long time to support her weight upon the limb. The disease had commenced about six years before, when, after a slight accident, she began to feel uneasy sensations about the knee-joint, and some little stiffness in walking; but there was no perceptible swelling of the part until within the last three years, when it began to enlarge, and as it had then become very painful, she was admitted into the Hospital, whence she was discharged, after five or six weeks' treatment, with but slight relief to her symptoms. Shortly after this she had a severe attack of jaundice, when the swelling and pain and the general uselessness of the limb increased so much that she became unable to move it forward in going upstairs or even in walking upon crutches. From this time she became quite unable to put her foot to the ground, and the enlargement gradually increased to its present dimensions, the pain towards the last becoming almost intolerable. Her general health had become much impaired through the constant pain, and she had got very thin from the loss of appetite, which had latterly almost entirely left her. She had formerly enjoyed good health, and before the commencement of her present complaint was a robust and hearty-looking woman. Her parents and family generally had been particularly free from malignant disease of any kind.

May 3.—Ten days after her admission the limb was amputated. The inguinal glands were quite free from disease when the operation was performed. On sawing through the bone just clear of the enlargement, the medullary cavity appeared to be more capacious than ordinary, and was filled with the same kind of morbid deposit as was found to constitute the bulk of the tumour, of which, indeed, it seemed to have formed a part, and evidently extended for some further distance up the bone of the stump. The stump healed kindly, the cicatrisation being only a little delayed by the gradual dissolution and discharge of the deposit which had been left in the medullary cavity of the bone. As soon as this had been completely discharged and its place occupied by healthy ossific matter, the wound of the integuments rapidly healed, her appetite had returned, and, as she shortly afterwards appeared to have recovered in every respect her former good health, she was discharged from the Hospital, five weeks after the amputation of the limb.

Examination of the Amputated Limb.—The tumour was composed entirely of a homogeneous unlobulated mass of yellowish brain-like matter, somewhat firmer and more compressed than ordinary brain, and having numerous bloody points upon its divided surfaces. In one part of it was a small clot of coagulated blood, round which the morbid deposit had become condensed, so as to form a cyst resembling in appearance an ordinary apoplectic cyst in the brain. The diseased mass completely occupied the condyles of the femur, the cancellous structure of which had entirely disappeared, as well as about five inches of the adjoining shaft of the bone, the portion removed by the saw (about three-quarters of an inch) remaining embedded in the tumour where the shaft had abruptly terminated. The immediate covering of the tumour was composed of the stretched and hypertrophied periosteum, strengthened in parts by thin flat scales of bony matter in its substance. Over the articular surface of the outer condyle the cyst was thicker than elsewhere, being formed by the undestroyed cartilage of the part; but over the inner condyle the cartilage had disappeared, the enclosing membrane of the tumour being here nothing more than the capsular ligament of the joint somewhat thicker than natural, and having a more bulged, elastic feeling than the other parts of the cyst. The crucial ligaments had lost their femoral attachment, and lay loose in the joint, and the alar ligaments, as well as the capsular, were thickened and softened, with other marks of progressive disorganisation of the joint, but with no appearance of pus in its cavity. The heads of the tibia and fibula were quite free from disease.

Remarks.—It is now nearly five years since the operation and there has not been the slightest perceptible symptom of a return of the disease either in the stump or in any other part of the body; it may therefore be fairly presumed that the malady had a strictly local origin, and was not the result of any pre-existing cancerous cachexia of the system, or from any hereditary predisposition to malignant disease on the part of the patient.

Judging from the examination of the tumour, and the absence of cartilage or other characteristic cells in its structure, I could not help thinking that the morbid deposit had commenced in the medullary cavity of the bone, and that, owing to some peculiar disturbance or loss of balance between the secretory and absorbent functions of the part, through the injury received, the natural medullary secretion had become deposited in excess, and thus by its subsequent eccentrical expansion and pressure had caused the absorption of the lamellated structure of the shaft at first, and afterwards of the cancellous texture of the condyles; until at length, by additional deposit, it got altogether out of the influence of the absorbent system of the part and constituted a tumour, which, although apparently composed only of the natural secretion of the part in excess, was insusceptible of absorption and could only have been removed by amputation.

Thus much for what may perhaps be considered a non-malignant affection of the parts; but there are other morbid enlargements in this situation, such as the osteo-sarcoma and fungoid growth originating in the bone, from which the innocent disease is not easily to be distinguished, especially in the earlier stages; and as they are all equally, during every part of their progress, unamenable to local remedial means, and as, in fact, amputation seems to be the only remedy in extreme cases, whether malignant or not, the principal consideration would be as to how far the operation might be expected to afford permanent relief to the patient. To illustrate this point, Sir B. Brodie has recorded the case of a patient whose limb had been amputated for encephaloid disease of the bone, who four years after the operation was in perfect health; and Mr. Stanley, in his treatise on diseases of the bones, has given an account of a case of the same kind of disease originating in the head of the tibia, where the patient at the end of two years had had no return of the disease. Other instances, however, have been recorded of directly opposite results, and in the seventeenth volume of the Medico-Chirurgical *Transactions* may be found a case, under the care of Mr. Lawrence, of an encephaloid tumour originating in the head of the tibia, in which, the patient dying after the amputation of the limb, encephaloid deposits were found in the bone

and the inguinal absorbent glands; and other similar instances have been recorded by Surgical writers on the subject.

It would appear from these and other instances that some amount of doubt must always exist as to the remote effects of amputation in diseases of this kind, and, such being the case, it would seem only reasonable to give the patient the benefit of the doubt, provided there should be no particular implication of the absorbent glands, nor the constitution broken down by such an amount of general cachexia as would be almost certain to be followed by the reappearance of the disease, either in the part or in some one or other of the internal organs of the body; in which respect a tumour in this situation might perhaps be regarded in the same light as some other questionable growths in external parts of the body, of which the exact nature is often only revealed by the reappearance of the disease, or otherwise, after their removal by operation.

ON PYURIA IN YOUNG CHILDREN, WITH AN ILLUSTRATIVE CASE.

By ROBERT C. R. JORDAN, M.D.

The passage of large quantities of pus with the urine is far from infrequent in young children, and many cases have come under my notice amongst the little patients at the Birmingham Children's Hospital. No case of idiopathic cystitis has, however, fallen under my care at any time; so that the very existence of such a disease in the young seems to me doubtful. The pus appears to depend always on some impediment to the passage of the urine, or on local irritation to the organs themselves, produced by the presence of a foreign body. In either case a certain amount of urine is retained, which, becoming ammoniacal, either causes or else increases the irritation. The commoner sources of such discharge may be classed thus:—

A. Internal—
- Stone in the bladder.
- Stone in the kidney.

B. External—
- Congenital phymosis.
- Hypospadias.

Rarer cases of either class—such as, for example, tubercular deposit in the kidney, and consequent abscess—are not noticed in the table. If there be impediment it reacts backwards, and the sequence is usually as follows:—First, hypertrophy of the bladder occurs; and if this cannot overcome the obstruction, then discharge of pus, produced by the irritation of the decomposed urine; next comes dilatation of the ureters; and, finally, cystic degeneration of the kidneys, with abscess and death. The primary cause is almost always Surgical, and the treatment (when it can be of any avail) is Surgical also.

The following case which lately came under my care well illustrates these points:—

W. M., aged 6 years, was admitted into the Children's Hospital, Birmingham, in February, 1872. He was sent to me from the Surgical department by my colleague, Mr. G. Elkington, as he felt that the time for Surgical interference was gone. He had been sounded of course with care, but no stone detected. There was no phymosis, but he had slight hypospadias. The orifice of the urethra was on the inferior surface of the glans instead of at the apex; but there was no difficulty whatever in passing a sound into the bladder. The quantity of water passed was very small, and laden with pus; it became more and more scanty until the suppression was almost complete; and after being in Hospital about ten days, the boy lapsed into coma, and died. During the forty-eight hours immediately preceding his death he only passed three ounces of water, or rather of pus, with a very little urine with it.

Unfortunately there was great difficulty in obtaining a post-mortem examination, and for this reason the urethra could not be examined. The following was the condition of the other parts:—The body was not deficient in fat, and the organs were generally healthy, and without albuminoid infiltration. The bladder was hypertrophied, and its coats considerably thickened. Both ureters were enlarged and dilated until they quite equalled the small intestine in calibre. Of the kidneys, the right was hollowed out into a mere collection of cysts, the cortical part not being thicker than the partition-wall between these. It was filled with pus, and in its posterior wall were two orifices which communicated with an abscess in the psoas muscle; but there was no pus outside its sheath. In the left kidney the same process of disintegration had gone on as on the right side, but not to quite so great an extent; and there was still a very thin layer of cortical portion, which, scanty as it was, must have been the only portion of either kidney capable of secreting. The large cysts and pelvis of this kidney were full of pus, and there was also a communication with the psoas, which was, however, so firmly adherent to it all round that a small encysted abscess was the only result. The renal arteries were enlarged and thickened; the supra-renal bodies seemed healthy.

This case teaches its own lesson, which is, that wherever the slightest obstruction exists to the free passage of urine in a child, Surgical interference should be promptly resorted to. Had early measures been taken in such a case as this, no doubt the fatal result might have been prevented. Even so simple a cause as congenital phymosis may lead to death. Every impediment—even the simplest—ought to be attended to as early as possible.

REMOVAL OF THE LOWER LIP FOR EPITHELIOMA—CHEILOPLASTIC OPERATION.

By J. FAYRER, M.D., C.S.I.,
Hon. Physician to the Queen.

Sietanath, a Hindoo blacksmith, aged 58, was admitted into the Medical College Hospital, Calcutta, on May 1, 1871, with an ulcerated epithelial growth involving the centre of the lower lip. It was indurated, nodular, and ulcerated, made its first appearance five years ago, and had been growing rapidly during the last six months. There were no glandular complications, but a portion of the centre of the lower alveolar process and gum were affected, and the incisors were partly displaced. His health being otherwise good, the diseased parts were removed on May 10.

The entire lower lip was removed by a V-shaped incision extending from the commissures of the lip to the point of the chin; portions of the alveolus and gum, with part of the frænum linguæ, were also taken away. The incisions were prolonged from the point of meeting at the chin in a curved direction downwards, outwards, and then upwards as far as the masseter on either side. The flaps, being dissected away from the bone, were then brought forwards and upwards until the first two incisions formed the margin of a new lip, the flaps being united by three horschair sutures in the central line, and leaving a triangular gap over the chin to be closed in by granulation and cicatrisation. Union occurred rapidly, and he was doing well until the 16th, when he had a severe attack of erysipelas of the face and scalp. From this, under the influence of purgatives, quinine, tr. ferri. muriatis, and plenty of wine and nourishing diet, he recovered, and union was not disturbed. His recovery was somewhat delayed. Cicatrisation of the lower part of the wound was not complete until July 21, when he was discharged.

The lower gum and teeth were well covered by the new lip, and the triangular gap had contracted to a small scar. The lip was adherent to the jaw, and its margin cicatrised satisfactorily.

The German Army.—The establishment for 1873 includes 1672 Surgeons.

Caries.—We have each year to report numerous cases of caries, and that principally of the left lower jaw. This tendency to caries may often arise from their unwillingness to part with decayed teeth. As pointed out in last report the Chinese part with portions of their body very unwillingly, from the fear of disfiguring them and being obliged to enter the other world maimed and imperfect, thus dishonouring those who gave them being. We forgot, then, to mention this additional circumstance when speaking of eunuchs, that individuals becoming such, and without a home or relations, roast and eat the parts there referred to, for fear of their going amissing by being obliged to carry them continually about with them till death. Decayed teeth are attributed by the Chinese to worms, supposed to be lodged in them. In one man the entire lower jaw, nearly perfect, was removed. His appearance was most peculiar before the operation. A boy appeared with exfoliation of nearly the entire skull; and a man, with the frontal bone entirely black and exposed.—*Report of the Peking Hospital, by Dr. John Dudgeon.*

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

GUY'S HOSPITAL.

THREE CASES OF LACERATED PERINEUM.

(Under the care of Mr. BRYANT.)

Case 1.—*Fracture of the Pelvis—Laceration of the Perineum—Protrusion of Intestine (large and small) with the Uterus and Bladder through the Perineal Wound—Recovery.*

Martha B., aged 4, was admitted into Martha Ward, Guy's Hospital, under the care of Mr. Bryant, having been sent up to him from Wales, with a note from Mr. Hugh Bennett, who saw her after the accident, fourteen months previously. The injury was caused by a two-wheeled cart carrying a ton of coal passing over the child's pelvis. When seen half an hour subsequently, the bladder, uterus, rectum, and small intestine were protruding from the lacerated perineum, having been "pulped" out by the abdominal pressure. Some part of small intestine protruded between the protruding rectum and coccyx. The parts were reduced as well as they could be, and the perineal wound stitched up. Although some prostration followed, the child's life was saved. At the time of the accident there was likewise a lacerated wound upon the right crest of the ilium. Two weeks after the accident the perineum partially gave way, and the parts protruded as seen when admitted. Between three and four months after the accident three pieces of bone came away—one through the wound over the ilium, one in front of the protruding gut, and the third behind. After seven months the child was able to leave her bed and to walk. The descent of the bowel, however, prevented her going much upon her legs; it used to descend as low as her knees when walking.

On Admission.—The pelvic bones are clearly separated for about two inches; the bowel is protruding for about two inches. The posterior commissure of the vulva is completely gone with the perineum, being represented by a deep fissure in front of the protruded gut. In front of this, again, the labia minora and clitoris may be seen just to the left of the middle line, between the widely separated labia. Looking at the child from behind, the pelvis is clearly widened. The buttocks are flattened, and the knees abducted and everted. The urine constantly dribbles away. There is some power over the motions.

On April 30 Mr. Bryant attempted to bring the divided borders of the perineum together, and succeeded with the aid of quill sutures; but the parts subsequently gave way, and no good result was obtained.

Case 2.—*Lacerated Perineum into Rectum—Prolapsus Uteri—Cured by Operation.*

Ellen J., aged 47, was admitted into Guy's Hospital, under Mr. Bryant's care, on June 3, 1871. She was a married woman, and had had five children. She received the injury for which she was admitted during her first confinement twelve years ago. For many months she had been able to do very little, on account of the "falling of the womb." She had no control over her motions on admission. Most complete laceration of the perineum was seen, with the loss of one inch of recto-vaginal septum. The womb appeared externally.

On June 22, with the patient under chloroform, Mr. Bryant operated, taking away a good inch of mucous membrane from the sides of the perineum, paring the free border of the recto-vaginal septum, and dissecting off a column of mucous membrane from the posterior wall of the vagina from the septum upwards. He then brought the parts together with the quill suture, using gut. He put in also some superficial sutures of silk. On the sixth day the sutures were removed, Mr. Bryant fearing the parts were about to slough; but in this fear he was wrong, for good repair took place at the posterior part and in the recto-vaginal septum. Mr. Bryant thought that a second operation would be required to make a longer perineum to support the uterus.

The patient left the Hospital on July 12, to return in a few months when stronger.

She was readmitted on October 27, 1871, and on Mr. Bryant making an examination he said nothing more was needed; all the parts had contracted up so well that a good perineum existed. The patient had full control over her motions, and very slight prolapse of the uterus.

Mr. Bryant pointed out that no case proved better the value of delay before operating a second time in these cases than this.

Case 3.—*Lacerated Perineum—Operation—Recovery.*

[Reported by Mr. Carter.]

Fanny B., aged 28, was admitted into Guy's Hospital, under Mr. Bryant's care, on May 10, 1871, with a lacerated perineum through sphincter. It took place during her first confinement in November, 1868, the child being hydrocephalic. She has had no power in retaining her motions since then.

On May 15 Mr. Bryant operated, the patient being under chloroform. He pared the edges of the perineum freely, as well as the anterior border of the recto-vaginal septum, taking away some of the mucous membrane of the vagina in front of the septum. He brought the parts together with the quill suture, using silkworm gut as sutures. Opium was given subsequently. On the eighth day the sutures were removed, complete union having taken place. On the eleventh day the bowels acted, and the woman left with a good perineum on June 7, well able to retain her motions.

ST. GEORGE'S HOSPITAL.

CASES UNDER THE CARE OF DR. JOHN W. OGLE.

Supposed Swallowing of a Farthing—Glass Bead passed per Anum.

The following is the case of a child, aged 4, who was supposed to have swallowed a farthing several days previous to admission. The mother at the time had made vain attempts to get out the farthing, and the child had taken no food, excepting milk and tea, since the event. The child was healthy in appearance. Pressure outside the neck seemed to occasion pain. For a day or two still the child only took liquid food. After this, as nothing had been given to him excepting soft pudding and bread, he began to eat solids, and soon ate like other children. The probang was avoided, and it seemed as if the unwillingness to swallow solids was the result of pain occasioned by rough treatment on the part of the mother in her attempts to recover the farthing supposed to have been swallowed. The stools were daily watched, and after a few days a large glass necklace bead was found in the evacuations. The child after this went home quite well.

Supposed Swallowing of Money—Uræmic Coma.

The patient, a waterman, past middle-age, got wet in a state of intoxication. Violent dyspnœa and shivering came on, and he was brought into Hospital with broncho-pneumonia. At this time the urine was free from albumen. He asserted that his illness was the result of some money which he had swallowed hurriedly to avoid his wife stealing it from him. Consolidation of the lung on one side followed, and some effusion into the pleural sac. All this cleared off, and he was convalescent, when his feet and ankles began to swell. This led to the urine being examined, and it was found to be loaded with albumen. In spite of treatment, coma and insensibility, lasting for two or three days, set in, from which he recovered under the use of a blister to the nape of the neck and croton oil. Afterwards he became quite convalescent, and all œdema left him. By degrees the albumen in the urine diminished so that scarcely a trace was left. Later on it increased, and he had again threatenings of head symptoms, which were relieved by elaterium and jalap purges. Eventually he left quite well, excepting that the slightest trace of albumen existed in the urine. At no time were casts of uriniferous tubes discerned by the microscope.

Acute Rheumatic Fever.

This case commenced by pain and tenderness and swelling of the *left* temporo-maxillary articulation. On recovery, the lymphatic glands of the *right* side of the neck swelled and formed a large indurated mass. Under iodine, it was greatly reduced on her quitting the Hospital. In connexion with this case, Dr. Ogle mentioned certain cases of permanent immobility of this articulation resulting from rheumatism.

Itch Cured by Peruvian Balsam.

This was the case of a child affected by well-marked itch about the fingers and elbows. A German Physician had lately visited the Hospital, and spoke of the cure of this disease by the balsam; and, at the suggestion of Mr. Claridge, the House-Physician, Dr. Ogle gave it a trial. The daily rubbing of the affected parts night and morning sufficed, in four or five days, completely to cure the patient.

Suicidal Tendency from Cerebral Congestion.

A young man of healthy appearance, in whose family was no hereditary taint, had become, as he said, "queer in the head," and tormented by the idea that he must commit suicide. There appeared reason to think that unwonted venery had been given way to. On admission the head was hot, and pain in it was complained of. The face was red, and the eyes rather suffused. He was freely purged, low diet was ordered, and ice, followed by evaporating lotions, applied to the head. After some days he quite recovered, and there was no return of his mental disturbance.

Almost Total Blindness—Intracranial Tumour or Deposit (?).

The patient, a woman—Anne S.—aged between 45 and 50, suffering from much pain in the head, has been almost entirely blind for several months. The muscles of the face and limbs act naturally, as also those of the eyeballs. There is very slight divergent squint with the left eye. The eyes were examined by Mr. Carter by the ophthalmoscope, and atrophy of the optic nerve was found, obviously the result of neuritis. The retinal veins were not only winding, but beaded as if varicose from past distension. The urine is free from albumen and sugar, and no syphilitic history is traceable. The loss of vision only came on gradually after the cerebral symptoms had existed some time. There has been no double vision. Under the use of bromide and iodide of potassium and blisters to the neck the pain has ceased, and she says she can distinguish the outline of objects sometimes which she could not previously do; the power of vision, however, is obviously but little improved.

GERMAN HOSPITAL, DALSTON.

IDIOPATHIC (RHEUMATIC) TETANUS.

(Under the care of Dr. HERMANN WEBER.)

From the notes kindly furnished by Dr. Port, the Resident Medical Officer, we learn that H. S., aged 35, a well-nourished and muscular man, a labourer in a gas factory, began to feel stiffness in the jaws on January 22; a few days later stiffness in other parts (especially the thighs) supervened, and he was obliged to remain in bed. On January 29, when admitted into the German Hospital, he was in profuse perspiration; the jaws could only be opened far enough to admit a spoon; the muscles of the neck, back, and lower extremities were especially stiff, while those of the arms still allowed a tolerably free movement. In addition to this constant stiffness he had painful attacks of spasms, occurring especially at night, during which attacks he had twice bitten his tongue. The intellect was quite free; the urine scanty, acid, free from albumen. Pulse 78; temperature 98·4° F. (36·9° C.) Treatment: Subcutaneous injection of one-sixth of a grain of morphia; fluid food.

January 31.—No marked change. Temperature 99° to 99·6° F.; pulse under 90; respirations 32 to 36 (irregular). The perspiration continues. The face has an anxious expression, the muscles of the lips being contracted, leaving a roundish opening. At night sleepless. Treatment: Subcutaneous injection of one-fourth of a grain of morphia twice a day.

February 2.—The symptoms are rather aggravated. The arms are likewise affected, but less so than the legs. Abdominal muscles rigid; nights sleepless; retention of urine since yesterday. He has occasional attacks of general spasm, with violent shaking of the whole body, during which the back is somewhat arched, opisthotonus-like. During the attack he gives about every forty seconds a single loud hoarse cough, with rather abundant thin muco-purulent expectoration. The perspiration, constantly profuse, is during the attack increased to that degree that it runs from the forehead and face in large streams. Pulse during the attack 85 to 88; irregular. Respirations 30 to 34; very irregular. The attack lasts from four to six minutes, immediately after which the pulse is only about 60, from which number it gradually rises again to between 80 and 90. There is scarcely any pain during the intervals. Treatment: Instead of the morphia injections, thirty grains of hydrate of chloral three times, afterwards four and five times, per day.

Under this treatment the nights became better, the attacks milder, the perspiration diminished, and the expression of his face and the general health improved. The pulse, however, became weaker, and he continued to require the catheter.

On the 12th the chloral was left off, in order to test its share in the treatment. The attacks became immediately increased in severity; the nights sleepless, the perspiration profuse, and the secretion of urine very scanty. From the 14th the chloral was resumed and led to rapid improvement; the stiffness of muscles likewise gradually diminished, and in the beginning of March he regained the power over the bladder, and was able to walk and to masticate.

The temperature after the 17th was never above 99·5°; it in general was under 100°, but on the 16th it reached 102·8° Fahr. The evening temperatures were always higher than those of the morning.

Dr. Hermann Weber remarked that it was rather difficult to demonstrate to which of the heads of idiopathic tetanus this case was to be assigned, but that he regarded it as rheumatic. Rheumatic fever, he said, was a most general affection at the time, occupying every third bed in the Hospital. The perspiration was much the same as in rheumatic fever, and the man's occupation exposed him to high temperatures, frequently alternating with cold draughts in the passages. He had, besides, met with another case of idiopathic tetanus, in which the alliance of the disease to rheumatic fever appeared to him as much as certain, as the patient, a lad aged 21 years, had previously suffered from rheumatic fever, without affection of the heart, while endocardial affection supervened during the course of the tetanus. As to treatment, the chloral had a decidedly favourable effect in half-drachm doses three to five times during the twenty-four hours, for the first improvement manifested itself soon after the administration of this medicine; the omission of the chloral during several days was attended with a recrudescence of all the symptoms, and the resuming of it was again followed by rapid improvement.

EDINBURGH ROYAL INFIRMARY.

RECURRENT ABSCESSES OF LABIA MAJORA.

(Under the care of Dr. MATTHEWS DUNCAN.)

[Reported by Dr. J. R. Haldie.]

B. J., aged 22, has been married for four months, and came into Ward XVI., December 20, 1871, complaining of frequent gatherings in the private parts. The first time that she noticed anything the matter was four years ago, when, after a fall off a ladder, an abscess formed in the left labium. Since then the abscesses have recurred eight or nine times, always at the same place, and without apparent cause. When left to themselves they have burst and healed up well; when opened with a lancet they also terminated quickly and well. On examining patient, an abscess is seen occupying the left labium—about the middle of its longitudinal direction. It is about the size of a walnut; not tender to the touch.

December 21.—Patient says the abscess burst to-day.

23rd.—No mark or trace of it could be detected.

25th.—Dismissed.

With this form of abscess of the labia—so far as can be judged from what has been written concerning it—the Profession do not appear to be very familiar. There is still great room for enlightenment with regard to it, its history being but imperfectly understood, and its preventive treatment (which would appear to be the treatment chiefly aimed at—in fact, *the* treatment) being in its infancy or still unborn. It is characterised by the formation of consecutive abscesses, which follow one another sometimes very rapidly, at others not so quickly, a considerable interval elapsing between their appearance. In some cases, before one abscess has burst or been artificially evacuated, another is in the process of formation. It matures and bursts; and this may go on until the patient has been the victim of ten or twelve, or even more of them. In others an interval of a few months may elapse between their formation. That the fall had any closer relation to the appearance of the first abscess than coincidence of time seems doubtful, since after the removal of the supposed cause the supposed effect was still apparent. Considerable pain generally attends their onset and maturation, which is only alleviated on the advent of suppuration.

The treatment to be adopted is that for the same disease occurring in other parts—namely, poulticing and evacuation locally, with the employment of any general remedies which the circumstances of the case may require; but, as has been already pointed out, what is greatly desiderated is some method of treatment which can either prevent the disease coming on at all, or cause it to abort when it has set in.

It is to be noticed as remarkable how little trace of the disease is left after evacuation, either natural or artificial;—so much so, that to one who had not seen the abscess before bursting its previous presence might appear questionable.

The following is an account of the autopsy of a case of Malignant Disease of the Ovary, under the care of Dr.

Matthews Duncan, reported in the number of the *Medical Times and Gazette* for February 17, 1872:—

The post-mortem was made twelve hours after death. Ascitic fluid to the amount of forty pints was drawn off. Abdomen only examined; the right ovary much enlarged. The tumour which it formed was eight inches long, nodulated and hard. Externally there was a cyst about the size of a billiard-ball. Throughout the tumour there were several small cysts; these all contained a viscous fluid. The left ovary was similarly affected, but to a less extent, its greatest diameter being about two inches. The uterus was little enlarged; its fundus felt hard. The left Fallopian tube was enlarged in its transverse diameter to the extent of half an inch. All these parts were perfectly free from unnatural adhesions. The right ovary on section proved to be hard throughout. Under the microscope it was seen to consist of cancer cells in a fibrous matrix. There was also cancer of pylorus, causing constriction. Mesenteric glands and pancreas cancerous; liver, kidneys, and spleen healthy.

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Medical Times and Gazette.

SATURDAY, MAY 11, 1872.

PYÆMIA.

The discussion on Pyæmia at the Pathological Society on Tuesday evening, which was commenced by Dr. Burdon-Sanderson, was of a most instructive kind, and lasted the whole evening. Dr. Sanderson related his earliest experiments on the subject—how he injected purulent fluid from a patient who had just died of metastatic abscesses into the abdomen of two guineapigs; both died, both had metastatic abscesses, one also tuberculosis. A dog, treated in like manner, had tubercles only. These and other experiments led him to believe that the two conditions called pyæmia and tuberculosis were closely allied. For a time his experiments stood still, but they were resumed in 1871, and the next discovery he made was that bacteria or their germs were invariably present in pyæmic pus, and that such fluids at once determine their development in any suitable fluid. When the subject was resumed with the help of Dr. Klein, the peritoneum was chosen as the most appropriate site for experiment, as its relation to the lymphatic system was best known. They found that there were endless varieties of the infective results—in one set of cases these were of a nature resembling pyæmia, in another resembling tuberculosis. As to the poison itself, it was found that its effects could be intensified by a kind of cultivation. If a pyæmic liquid was introduced into the peritoneum of a guineapig, and allowed to remain two days, it might produce no very striking effect on the animal itself; but if a portion of fluid was now withdrawn, and introduced into another animal, it had acquired such deadly activity that death followed in a few hours. Such an experiment was made before the Society—a dog being exhibited in a state of collapse which had been injected with a few drops of fluid in the afternoon. During the meeting it was killed, and its abdomen exhibited. The whole alimentary canal was intensely injected; the epithelium was shed, and the mucous membrane infiltrated with fluid. Dr. Sanderson also pointed out that though bacteria were constantly present in such fluids, any theory of the mode of origin of these bacteria was beside the question.

This, Dr. Bastian—true to his doctrine of heterogenesis—was by no means prepared to admit. Mr. Hulke did good service by eliminating the subject of septicæmia from that of pyæmia; but he gave a definition of septicæmia which we are hardly prepared to accept. Pyæmia was alleged to be due to the introduction of some form of pus into the system, septicæmia to the entrance of some putrescent substances; so that septicæmia might be an accident in the course of pyæmia or no. As we understood him, he would limit the origin of this state to the entrance of putrescent solids or fluids into the system. From our point of view, gaseous or volatile bodies may be equally powerful, or, at all events, capable of giving rise to symptoms similar in character to those produced by solids or fluids. We would almost take as our type of the disease or condition that which sometimes occurs in students busily engaged in dissecting semi-decomposed bodies, when there are fever, *malaise*, headache, very likely passing off with some diarrhœa. Nevertheless, it was well for Mr. Hulke to bring distinctly under the notice of the Society that the two conditions, though allied, are not identical—a doctrine we have frequently been compelled to preach.

Mr. Spencer Wells thought the poison might be due to some chemical substance, and alluded to a case in point which came under his notice. This, subsequently, Dr. Sanderson denied, although admitting that the subject had not been worked out. At all events, the specific poison was not of a diffusible nature.

Upon the whole, the discussion was not so brilliant as had been expected, though it was very good. A good many men of authority who could have spoken well on the subject were not present, and some who were present did not speak. The only exception to the rule of good speaking was one gentleman whom the Society would not endure, though he entered into the merits of salt as an application to castrated animals.

The most valuable results, we take it, which have been obtained from the discussion are these—the due separation of septicæmia and pyæmia, and the demonstration of the alliance between pyæmia and tuberculosis: an alliance which we take pride to ourselves that we pointed out now many years ago.

At the next meeting Dr. Sanderson will exhibit microscopic specimens illustrative of his views on the matter.

THE "MANIFESTO" ON ALCOHOL—ITS ORIGIN AND RESULTS.

Now that there has been full time to consider the "Medical Manifesto" concerning "alcohol," its origin, and results, we believe we may fairly assume that many, if not most of those who signed it, and certainly the great body of the Profession, regard its publication as a "mistake." Talleyrand regarded a mistake as "worse than a crime," and undoubtedly in some cases it is. It is more easy to determine the final effects of a crime than of a blunder. In one case they are definite, in the other indefinite. We have no hesitation in saying that the originators and the signers of the "Manifesto" have inflicted grievous injury on their Professional brethren as well as on themselves. It has been said that a man cannot be at once a "criminal

and a judge"; but almost every Practitioner whose name is appended to the "Manifesto" did in reality sustain these two characters—"two gentlemen at once." For it cannot be denied that many of these advocates of temperance are, and have been, in the habit for years past of stimulating with "intoxicating" spirits in cases of low fever, or depression following severe injury, and in most cases where the condition of the system called for support. Indeed, it would be criminal in them to withhold this means of sustaining life, when such means are demanded by nature, spite of the theories of half-crazed total abstainers, and the objections and denunciations of "temperance" advocates.

It is not our intention to go into "argument" as to the "wording" of the document in question. Without hair-splitting, and viewed merely by the light of common sense, the "Manifesto" is a denunciation of the members of the Medical Profession for their encouragement of the vice of intoxication. The offenders, however, may pride themselves on the fact that their accusers do not charge them with wilful and corrupt encouragement of intoxication. No, they are too charitable and polite to do this. On the contrary, they are convinced that drunkenness as fostered by Medical Practitioners is due to the carelessness or ignorance of the prescribers. If the Manifesto means anything, it means this. A grosser (but we believe unintentional) insult was never offered to intelligent members of an honourable and learned Profession. The reaction, however, has commenced, and is still going on. Discussions are constantly taking place in all gatherings of Medical gentlemen, whether over the dinner-table, in societies, or elsewhere; and it is not too much to say that the Manifesto is generally denounced as an attack upon the Profession. But the evil which this "Manifesto" has inflicted upon Medicine in the eyes of the public cannot be overrated: it has tended to lower the faith of the public in legitimate practice quite as much, if not more, than "homœopathy" or any other quackery. The reason of this is obvious. The charge against the Profession is made by nearly 300 of those who claim, and not without good cause, to be the "heads" of Medicine and Surgery.

"If," say the public, "the great mass of our Medical attendants deserve such a reproof from their 'betters,' how can we trust them?" The public has, however, we should hope, too much sense to regard the "offenders" in one light only. How many men, and women too, can point to their Medical advisers as their saviours from habits of gross intemperance! By precept, by example, by carefully and gradually reducing the amount of stimulus, how many a drunkard has been saved and reclaimed by his "Doctor"! If that Doctor, in the pursuit of his practice, finds occasion to stimulate as a means of curing disease or of saving life, we should not hold him guiltless if he withheld the required assistance. We say, on the contrary, that his neglect of the use of "alcohol," when alcohol was required, would be little short of a criminal act, and might be "murder" by omission—in the eyes of equity if not of the law.

In the whole discussion of the subject of intemperance it is to be regretted that the question has been taken up by the "societies" on either side as a party question.

"They give up to party what was meant for mankind."

Yes, it is a subject which cannot fairly or satisfactorily be discussed in this one-sided and unsatisfactory manner. Drunkenness is unquestionably to be denounced in unmeasured terms by all right-thinking people; but "temperance"—and by this we mean the moderate and wholesome use of "wine"—is not only not to be condemned, but is, as a general rule, beneficial to health and longevity. In these days of harass, competition, and the "wear and tear" of life, there is little that is "natural." If it be natural to drink only water, so it is equally natural to live as our first parents did in Paradise—feed on herbs and dispense with clothing. The mistaken enthusiasts who confound the abuse with the use of wine are not open to argument. They assume a position and hold it, fortified by their own self-conceit, in a citadel of prejudice, guarded by ignorance. In saying what we have said in defence of our Professional brethren, we desire to be understood as objecting to "over-stimulation," even in disease, if such is ever resorted to. It may be in some few instances, and in these perhaps from ignorance. But we are firmly convinced, from a long and extensive acquaintance with the Surgeons in general practice in this country, that as a body they are not open to the grave charge made against them by the three hundred. On the contrary, we assert, without fear of contradiction, that they are too well informed, too intelligent, too conscientious to fall into such a mistake. It must be recollected that the progress of knowledge, the improvement in Medical education, the increase of severity in the examinations by our qualifying bodies, have had the effect of raising the Surgeon in general practice to a position very different indeed from what it was a quarter of a century ago. It is not too much to say that the "village doctor" of the present day is a man equal to something more than the "common exigencies of his Profession." He may not be so "acute," "subtle," or "microscopic" as some of the leading "specialists," but he takes a broad view of humanity in its healthy and diseased states, and as a Practitioner is as safe—nay, safer, if not so "brilliant"—as the man who confines his study to one organ at the expense of all the rest. We have spoken severely, and we intended to do so, of the "Manifesto." It originated in a *ruse* and is worded in a most objectionable manner. It is a blunder as to the influence it has exerted on the "cause" for which it was framed; it is erroneous as to its statements and inferences; and it is gravely offensive to many thousands of men as able and as worthy to "stand erect" as any of the three hundred who have needlessly called the conduct of their brethren into question.

THE WEEK.

TOPICS OF THE DAY.

We hear that a Bill will before long be introduced into Parliament to enable the Apothecaries' Society to take part in a Conjoint Examining Board for England.

The death of Mr. Dasent is only one of a long list of fatalities that lie at the door of the University of Oxford. Our old Universities, and the colleges in connexion with them, have enormous revenues, which they are supposed to expend—and great privileges and rights which they are supposed to exercise—in maintaining the education of the better classes of English society. They receive large sums for the maintenance of the young men whom they educate; and yet it is marvellous how indifferent the authorities show themselves to their safety and physical well-being. In this matter of bathing, Sandford Lasher—the pool where Mr. Dasent was drowned—is well known to be a magnificent bathing-place, only it is excessively dangerous. It attracts to it all the best swimmers in the University during the bathing season, and yet the University authorities have taken no pains to provide assistance on the spot in case of accidents. A couple of men and a boat with a rope would have saved Mr. Dasent's life, and would have preserved to the country one of the most promising scholars in the University.

Under the heading "Layers of Infection," the *Pall-mall Gazette* extracts from the report of the City Officer of Health for Manchester some facts relating to the number of coats of paper found on the walls of houses infected with small-pox in that city. On the walls of one cottage fifteen coats were found. But it is not only in cottages or in Manchester that old papers are left on walls. Most of us have seen in respectable houses in London layer after layer of paper stripped off servants' bedrooms which we have recommended to be cleansed after scarlatina and other infectious diseases. The practice of whiting sepulchres is not confined to Palestine.

As we anticipated, the charge of manslaughter preferred against George Hurry, one of the "Peculiar People," was withdrawn from the consideration of the jury by Mr. Serjeant Ballantine, the leading counsel for the prosecution. Such a charge could not be sustained unless the death could be directly connected with the neglect to provide Medical assistance. To establish the charge of manslaughter such neglect must at least conduce to the death; and as Mr. Ryley, a Surgeon at Woolwich, very properly said in giving evidence, "he would, of course, not say that the child would have survived if he had been called in." The defendant was, however, convicted of a misdemeanour in having neglected to provide Medical assistance and advice for his child while suffering from small-pox. But even this seems a very questionable offence in the eye of the law, and Mr. Justice Byles expressed himself willing to reserve the point of illegality for the decision of the Court of Criminal Appeal. There being no desire to press harshly on the defendant, a person of exemplary character, he was eventually discharged upon his own recognisances of £50 to come up for judgment if called upon, which, as the judge said, would probably never be the case if he did not misconduct himself in future. The point of law will not therefore have to be argued, and the question still remains doubtful, whether such neglect constitutes an offence known to the law. Common sense and morality, a consideration for the health of the community, and a humane protection to infancy should of themselves suggest that such neglect should be specifically rendered criminal by some short Act of Parliament, and the question set at rest as to the relative duties in this respect of parents or those *in loco parentis* towards children as well as to the community at large.

We are informed that circumstances have occurred which have induced Mr. Holmes Coote to withdraw his name from the list of candidates for the post of Surgeon to the Orthopædic Hospital.

We are informed that 57 deaths took place in Dublin last week from small-pox, and that during the three previous weeks the deaths from the same disease were 83, 52, and 60—a mortality which would be represented in London by 830, 520, and 600. Meanwhile, the Corporation have provided no Convalescent Hospital, and are now only proceeding to borrow money for the purpose. By the time they have got their Hospital we may hope that the want may cease to be felt.

Sir William Jenner will preside at the distribution of prizes in the Faculty of Medicine at University College on Thursday, May 16.

THE EXHIBITION OF THE ROYAL ACADEMY, 1872.

THE Exhibition of the Royal Academy is open for the season, and we may be allowed to jot down a few of the points of interest for Medical readers. Amongst the busts in the vestibule we cannot fail to recognise John Flint South (by H. Weekes), beaming with shrewd, quaint *bonhomie*. Near him is Sharpey, by Thorneycroft, looking the incarnation of solid, dignified good sense; his portrait, too, by J. P. Knight (No. 167), in Gallery No. 3, represents him with left hand raised in the act of teaching with weight and earnestness. Both are public monuments, worthy of the man and of the institution for which they are designed. Professor Owen's bust, by M. Wagmüller, almost exaggerates the light of self-consuming enthusiasm which beams from those features. No. 431, in Gallery No. 5, is the portrait of Erasmus Wilson, by S. Pearce, draped in his robes as Professor of Dermatology at the Royal College of Surgeons; a good portrait, with thoroughly calm and gentlemanly expression. No. 554 is the portrait of Sir James Paget, by Millais. It represents this great Surgeon standing as he taught in the theatre of St. Bartholomew's, with the black diagram-board behind him, and a bone just to indicate the subject of his teaching. To say that it is full of earnestness and vigour would not be half the truth; the fact is, it is too full—painfully full; and the degree in which mental tension is expressed deprives the portrait of that air of repose which is essential to a perfect work of art. [So we said on a first view; second impressions force us to say that it is a powerful portrait, beaming with conscientious earnestness.] No. 638, by Richmond, is a bright, clear, intellectual presentment of Richard Quain, Esq.; and 952, by Macbeth, the powerfully drawn clear Scottish face of Arthur Mitchell, M.D., one of H.M.'s Commissioners for Lunacy in Scotland. No. 299 will bring to our readers' recollection that Sir Henry Thompson, if he were not a great Surgeon, might rank as a great painter. No. 1529 is a model of the statue of Dr. S. T. Chadwick, by Birch, to be erected in bronze for the town of Bolton: his features plain and thoughtful, and the whole figure worthy of a great Physician and philanthropist. No. 1481 is the prize medal of the Army Medical Department in memory of the late Director-General Thomas Alexander, whose effigy occupies the face of it. No. 1474, a bust with good square-cut Irish features, represents the late Dr. Barter, the promoter of Turkish baths. We must add that the features of Dr. Lockhart Clarke, the investigator of the spinal cord; of Dr. Joy, who we believe contributed several articles to the "Cyclopædia of Practical Medicine"; of the late Dr. Finch, Dr. Hadaway, and Dr. Greenhow (of the Middlesex Hospital), are all represented in monumental marble or in the preliminary clay. Some of them, at least, are faithful likenesses.

IMPORTANT DECISION.—LANGAN *v.* THE GREAT WESTERN RAILWAY COMPANY.

THIS case, recently adjudged by the Court of Queen's Bench, Westminster, raised a question of very great importance, not only to the public generally, but to the Medical Profession especially. The question was as to the liability of railway companies for necessary aid to sufferers in railway accidents. The case arose out of an accident which occurred at the Horsley-fields Junction, in the county of Stafford, in December, 1870, and the action was brought by the landlady of the "Durham Ox," at Horsley-heath, to recover from the Company £109 for board and lodging of three persons injured on that occasion. When the accident happened, the station-master at once appeared to assist the sufferers, and three of them were removed to the plaintiff's inn. The inspector, whose duty it was "to attend to accidents," assisted at the removal, and the Company's Surgeon was sent for, who attended the three sufferers at the plaintiff's house for some weeks, as they were not in a position to be removed. One of them asked who was to pay, and the inspector said the Company would see to that. Accordingly, they received all proper nourishment for a month, and the bill came to the sum claimed. The case was tried at the Stafford Assizes, before Mr. Baron Pigott, who, upon the authority of Cox *v.* Midland Railway Company, quoted in "Weightman's Medical Practitioner's Legal Guide," as having decided that a station-master had no authority to pledge the credit of the Company by sending for a Surgeon, directed a nonsuit, the correctness of which was now disputed. The remarks of the judges are well worthy of consideration.

The Lord Chief Justice (Cockburn) said that this was a case of agency from necessity. He would not carry the case of "Cox *v.* Midland Railway Company" one iota further. What was to be done with wounded passengers in a railway accident? Were they to be left to bleed to death or to die of their wounds? Their lives might depend upon their having prompt Surgical aid and continued care and attention. And although he knew that Medical men in a case of emergency never waited to think who was to pay them, it was too much to expect continued care and attendance unless they were paid. The authority in every such case must depend upon the circumstances, and this case differed materially from that cited. . .

The "inspector of accidents" had, by virtue of his authority, a discretion to exercise with reference to sufferers. The plaintiff's claim, therefore, was sustained.

Mr. Justice Hannen said that the case cited only decided that a station-master had not necessarily, and as incident to his office, authority to send for a Surgeon; but here the officer who pledged the credit of the Company was one whose duty it was to attend to accidents and see to the persons injured.

Mr. Justice Quain said that he concurred. The officer here was one whose special duty it was to look after the sufferers, and he had authority to order them what was necessary.

This case, therefore, although relating to an innkeeper's bill, really decides that an "inspector of accidents" has authority to send for Medical attendance, and can pledge the credit of the company; and it would also seem that "the authority" of even a station-master must, to repeat the words of the Lord Chief Justice, "depend upon the circumstances" of the case. For there may be no "inspector of accidents" at the particular station; prompt Surgical attendance may be required, and yet the company's Surgeon may not be within call, and in such case the services of one on the spot may be secured. On the whole, the present case may therefore be considered both a more mature, and certainly a more righteous decision, than its predecessor.

THE WOMEN-STUDENTS.

The Senatus of the Edinburgh University recently decided by a majority to defend the action of declarator brought against them by the women-students, and they have now given in their answers. Six of the professors (Bennet, Lorimer, Calderwood, Masson, Charteris, and Hodgson) have, however, declined to be parties to the defence of the action, and have entered a minute giving at length their reasons for such refusal, the last being that they would "individually feel ashamed of appearing as defenders in such an action."

MEDICAL SOCIETY OF LONDON.

The annual oration of this Society was delivered by Mr. F. J. Gant, F.R.C.S., on Monday last, May 6, at the rooms of the Architectural Society in Conduit-street. The orator chose for his subject "The Aspects of Modern Surgery as a Science and an Art"—a theme which seemed to be specially appropriate on the occasion of the celebration, within one year, of the Society's centenary. Having traced the development of scientific Surgery from the Hunterian conception of biology, and the subsequent alliance of physics and chemistry—the latter sciences having been chiefly cultivated in the Continental schools of Germany and France—Mr. Gant approached pathology, as the more immediate ground of modern Surgery as a science. Standing, as it were, at the bedside, he expounded the various directions of inquiry which had thence arisen in the clinical investigation of disease—with regard to diagnosis; in the laws relating to the operation of diseases, and the prognosis of their further vital history; in their course, terminations, and consequences. These aspects of modern Surgery, and of Medicine collaterally, were abundantly illustrated and enforced by the observations of distinguished clinical Surgeons and Physicians, past and present.

Turning to the practice of Surgery as a scientific art, the leading features which had marked the progress of modern treatment were singularly interesting. The known resources of nature in the cure of disease and the repair of injury; preventive Medicine and Surgery, especially respecting infection or contagion, and the doctrine of antisepticism; the rise of conservatism in Surgery, and thence the rigid check imposed on the reckless amputations and mutilations formerly practised; the more recent relation of "excisional Surgery" to the natural cure of joint disease by anchylosis; plastic Surgery for the repair of deformities and malformations; the guidance of pathology in the design and performance of Surgical operations; and the introduction of anæsthetics, to complete the beneficent no less than the artistic character of modern Surgery. These, and other large topics, were handled with much force and skill.

Amongst the many interesting objects exhibited at the *soirée* after the oration were the original drawings of the late Mr. John Leech; by Dr. Crisp, casts of the brains of various animals; by Mr. Hogg, the finer nerve-fibres of the cornea of the frog; by Dr. Sansom, an American preparation derived from petroleum, called "cosmaline;" by Messrs. Savory and Moore, pharmaceutical preparations; microscopes, photographs, Surgical instruments, etc.

THE JACKSONIAN PRIZE.

Again we have to record the melancholy fact that out of six essays sent in to compete for the Jacksonian Prize of the College of Surgeons, not one was deemed worthy of receiving an honorarium of about fifteen pounds. Such an abortive result as this can only be explained by one of three reasons. Either the candidates failed to come up to the required standard of excellence; or they neglected to show sufficient originality and comprehensiveness in detailing their observations; or, what is more probable, they overshot their mark, as did poor Price, by including in their essays matter not strictly appropriate to the subject in hand. We very much regret such an unsatisfactory termination to the labours of these six gentlemen, because we are of opinion that a verdict like this tends to discourage gentlemen of standing in the Profession from competing for these prizes. Certainly, as far as the candidates are concerned, it ought to be the rarest possible thing that when several compete no award should be made. It was a practical subject—"The Treatment of Wounds after Operation, including the Arrest of Hæmorrhage, Primary and Secondary"—and the essays ought to have been good.

ELECTION OF MEDICAL OFFICERS TO CHARITIES.

A resolution of considerable importance to the Profession was passed at the last meeting of the Council of the Charity Organisation Society. It was to the following effect:—

"That, in the opinion of the Council, the system of periodical contested elections by the whole body of the subscribers is open to much objection in its application to Hospitals and orphanages; and that it would be more conducive to the object of such institutions if the selection of the persons to be benefited were made after full investigations of comparative claims by a committee elected according to such conditions as would secure a real representation of the subscribers."

The system of election of Medical officers to our charitable institutions which at present prevails is open to the gravest objection. It is one not calculated to the selection of the best men for the vacant offices, and it is derogatory to the candidates themselves. It is difficult to conceive anything more humiliating to an educated gentleman than for him to go cap in hand to the governors of a Hospital to solicit their "votes and interest." The labour of such a proceeding is often very great, and the electors have really no proper means of arriving at a just estimate of the candidate's fitness for the office he seeks to obtain. In some institutions, even at the present time, the vicious system prevails of "making votes" at the last moment to carry in a particular candidate. We look with shame and dismay at the late meeting of the Governors of the Orthopædic Hospital, as an instance in which governors permit themselves to be made to serve the purposes of an individual. If the resolution of the Council of the Charity Organisation Society can be carried out, it will confer an immense benefit on the public and the Profession.

CONVICTION UNDER THE MEDICAL ACT.

The Medical Act would appear to be more effective than is generally supposed, when care is taken to select cases for

prosecution under its provisions. There can be no doubt that there is a multitude of cases similar to that of "Dr. Andrews," and it is to be hoped that the successful issue of this case may induce parties to prosecute whenever an infringement of the Act can be clearly proved. On Tuesday last an appeal—Andrews (appellant) *v.* Styrap (respondent)—was heard in the Court of Exchequer; it was an appeal from the conviction of the magistrates of Shropshire. The appellant had been practising as a Physician in Shrewsbury, describing himself on his cards as "M.D.," and having a brass plate on his hall-door with the same initials upon it. Upon this he was prosecuted before the magistrates, which resulted in a conviction of an offence under the statute of the 20 and 21 Vic., 1843, and a penalty of £20. It was contended, in support of the appeal, that the conviction was bad, as there was nothing to show that the appellant had wilfully and falsely styled himself a Doctor for the purpose of deceiving the public; that he had obtained a diploma from a German College of Physicians, and he believed himself fully authorised to practise in this country; and that to establish the offence it was necessary to show that he had "wilfully and falsely" styled himself a Doctor for the purpose of obtaining those objects. Evidence was given in support of the conviction, and the Court gave their unanimous judgment, confirming the conviction, declaring that there was evidence to prove that the appellant had been guilty of "wilful falsehood," and expressing their approval of the measures taken by the American Government in conjunction with us to put a stop to this traffic in false diplomas.

WHAT NEXT, AND NEXT?

In an old Bill of Sir Andrew Agnew for preventing Sunday work, the provisions were carried to an extent that rendered the measure ridiculous and impracticable. In a popular song of the time—one of Hudson's—amongst other things mentioned was—

> "Women taken in labour on Sunday
> Must put off the hard work until the Monday."

Even the wags of the period, however, did not venture to suggest a "day of rest" for the poor Doctor—that was beyond the imagination of the most imaginative and suggestive. But now there seems something approaching, at all events, a release from labour for even the hard-worked Medical Practitioner. It is stated that the Doctors' coachmen in Edinburgh are organising against the imposition of Sunday labour. If the effort be successful, the horses of course must rest. If the horses, why not their masters, as well as their drivers?

HEALTH OF MANCHESTER.

It is remarkable how slow are the improvements in some large towns for the purpose of lessening disease and mortality. The authorities of Manchester appear to have been very energetic in removing nuisances. Mr. J. Leigh, the Officer of Health, states in his report that the number of deaths in the city averages 9526, "more than two-thirds of which occur from infectious diseases in children under 10 years of age," and he offers some observations upon the best method of removing some of the causes of this excessive mortality. A large number of cellar dwellings have been closed during the year, and the Health Committee, after having closed 2400 of these places, are now able to announce that at the present time, with the exception of a few temporarily occupied by very old people, it may be said that there are no cellar dwellings in Manchester.

TROUBLES IN PARIS AND THE DOCTORS.

The ferocity displayed by the opposing troops in the struggles around Paris during the civil war was all but unparalleled in history. Even in the most savage warfare the persons of the "Doctors" are, as a rule, held sacred. Not so, however, in the civil strife of last year. Attention has been drawn by a Paris journal to the fact that several Surgeons belonging to Val-de-Grâce were summarily executed by the Versailles troops in endeavouring to protect a number of wounded insurgents near the Place St. Sulpice. The Government, it would seem, has attempted to hush up the affair; but the Dolbeau scandal has aroused some of the intractable students, and a private inquiry into the matter has commenced. MM. Fano and Ferreogobi, two well-known Surgeons, who had disappeared since the repression of the insurrection, are stated to have been among the victims.

SMALL-POX IN DUBLIN.

During last week 415 applications for relief were entertained by the Mansion-house Relief Committee, which met every day. At the meeting of Wednesday week, Dr. Evory Kennedy brought under notice the propriety of communicating with the Public Health Committee of the Corporation as to what steps had been taken towards providing a convalescent home for small-pox patients. Accordingly a deputation from the Relief Committee waited on the Public Health Committee on Thursday, when it was ascertained that the latter body had secured a suitable site, on which it was intended forthwith to erect a permanent structure as a Convalescent Hospital for city patients. Pending the completion of this building, a temporary arrangement has been made to accommodate some sixty convalescents in a house close by one of the metropolitan Hospitals.

THE "PECULIAR PEOPLE" AND THE SPREAD OF SMALL-POX.

The Grand Jury at the Central Criminal Court, on Wednesday, annexed to the indictments a presentment in which they stated that the case of the "Peculiar People," who ignored the application of Medical science in cases of sickness, appeared to call for attention on public grounds; as, while the local authorities were bearing the expense of providing Medical officers for the purpose of attending to sanitary matters and making use of disinfectants, the "Peculiar People" did not appear, even in the case of small-pox, to call in Medical assistance or take means to prevent the spread of the disease, and such a practice as that was dangerous to the public at large. The Grand Jury expressed a hope that some action would be taken to provide a remedy in this matter.

SMALL-POX JOTTINGS.

During the past fortnight four cases of small-pox were reported to the Newington Vestry.——The deaths in East London from small-pox in the past week were six, of which four occurred in the Poplar Union.——Benjamin Pritchard, a potter, was last week fined 5s. by the Hanley magistrates for going about the town before he was thoroughly recovered from the small-pox. His defence was that the Medical officer never came near him, and he had therefore left the small-pox Hospital. He was ordered to return to the Hospital, and remain there till he received a certificate of convalescence.——The new Hospital at Halifax for the reception of small-pox patients was opened last week.——The return of small-pox cases in the Aberdeen Small-pox Hospital shows, for the week ending Monday last—total number of cases admitted since opening, 189; new cases admitted on Monday last, 2; number of patients now in Hospital, 20; total discharged recovered, 137; total dead, 32. The fatal cases of small-pox in the metropolis, which in the four previous weeks had gradually declined from sixty-five to forty-one, rose again last week to sixty-two.—— In Edinburgh the disease is still on the decline. Thirty-eight cases were admitted into the Small-pox Hospital last week, thirty were discharged cured, and ten died.——In Plumstead East sub-district there are living about fifty of the "Peculiar People," among whom small-pox is raging severely. Three deaths occurred from the disease during last week.——Small-pox still lingers at Norwich. Since the disease first appeared in Norwich, 536 deaths have occurred from it.——Dr. Aldis, St. George's, Hanover-square, reported last week one case of small-pox, which was removed to the Hospital.

FROM ABROAD: M. OLLIER'S DRESSING BY OCCLUSION INAMOVIBLE —DR. VOGT ON ERGOTINE INJECTIONS FOR VARICOSE VEINS— M. VERNEUIL ON PRECOCIOUS ERYSIPELAS.

In relation to the *pansement ouaté* of M. Alphonse Guérin, to which we lately adverted (*Medical Times and Gazette*, April 6, page 406), M. Viennois, in continuation of a former paper describing the isolating mode of dressing (*Medical Times and Gazette*, December 30, page 804) adopted by M. Ollier, furnishes in the *Gazette Hebdomadaire* for March 29 an account of the *occlusion inamovible* adopted by the Lyons Surgeon. Applied to large wounds in general—wounds of joints and those succeeding operations—it possesses, he observes, not only the advantages justly claimed by M. Guérin for his *pansement ouaté*, but also other special advantages, which are only attainable by the absolute immobility of the wound. Having now observed this plan applied to more than forty cases, M. Viennois is enabled to state that its adoption has entirely changed the prognosis of some wounds when treated in infected localities. Hospital Surgeons are now able to obviate the accidents which have hitherto excited their terror, and have often prevented their performing even the most rational operations in Hospitals.

Occlusion inamovible depends upon two essential principles—(1) occlusion by means of cotton, as practised by M. A. Guérin, preserving the wounds from infecting germs; and (2) complete, absolute, and permanent immobility of the wounded region by means of a silicated bandage, enveloping all parts the movements of which might in any way influence the divided tissues. The value of the first of these has been amply shown by the admirable success obtained by M. A. Guérin during the siege of Paris; and for the second M. Ollier prefers the silicate of potash to any other solidifying agent, by reason of its convenience of application and its lightness. It is much easier manipulated than plaster, and secures immobility just as well. When there is reason to suspect abundant production of pus or serosity, the layer of silicate may, after its desiccation, be perforated at several points, in order to allow of evaporation, without penetrating the wadding envelope which it surrounds. The immobility is not impaired, and the cotton remains dry beneath. M. Ollier was induced to recommend these perforations, as he found, in consequence of the moisture from want of evaporation, the skin near the wound became macerated and excoriated. The *occlusion inamovible* will hereafter much influence Surgery on the battle-field, as, with abundance of cotton and the silicate, most of the early dressings can be performed, while in wounds where immediate intervention is dubious and after amputation, transport is greatly facilitated.

Immobility seems especially advantageous in calming pain, limiting suppuration, and preventing subcutaneous detachments. Some wounds and stumps when they are only enclosed in masses of cotton and supple bandages still continue painful; but as soon as a silicated bandage has been added, and has dried, they cease to be so. For this to be so, the bandage must be well applied, and embrace a sufficiency of the body to secure immobility. Thus, in amputations of the arm, the shoulder, and in those of the leg the pelvis, has to be comprised; and even in amputations of the hand and foot the corresponding portion of the trunk must be embraced. M. Ollier is so convinced of the importance of immobility that, when congestive or articular abscesses have to be opened, he first applies the silicated bandage, employing Dieulafoy's aspirator for their discharge. Every attempt must be made to prevent the removal of the silicated bandage during ten days, by which time an ordinary wound may have a layer of granulations. It may then be advantageously changed to prevent maceration of the tissues. The medium time for its renewal after amputation is three weeks. Owing to the swelling of the limbs which follows excisions for chronic diseases, occlusion is not favourable in these cases, a silicated bandage largely fenestrated being preferable. One of the most remarkable circumstances in the *occlusion inamovible* is the great diminution, or even complete absence, of suppuration.

Dr. Paul Vogt, Assistant-Surgeon in the Out-Patient Clinic at Greifswald, encouraged by the benefit which Langenbeck and others have derived from treating small aneurisms by hypodermic injection of the solution of ergotine, determined upon trying it in varicose veins of the lower extremity. Hitherto, as the various attempts at obtaining a radical cure of this affection by producing obliteration of the veins over a certain extent has led to evils and dangers out of proportion to the affection itself, he has confined himself to palliative treatment. He refers (*Berlin Kl. Woch.*, March 4) to a case in which an extensive varix which had occupied the leg for years yielded in the course of a week to two ergot injections (ext. sec. cornut. two parts, to sp. vini and glycerine of each seven parts), this being replaced by a hard, circumscribed infiltration, which eventually subsided. In various other cases as remarkable results have followed.

In explanation of the action of the ergot, Dr. Vogt believes that the following points are worthy of consideration:—1. From clinical and experimental observation the ergot injection produces contraction of the muscular coats of the vessels—chiefly of the arteries. Through the contraction of the calibre of the arteries thus produced (especially operative on those of medium calibre which are rich in smooth muscular fibre), less blood is carried into the veins, this lesser quantity being propelled with greater velocity. 2. The ergot also acts upon the muscular coat of the veins; for although this after years of persistent dilatation may have disappeared in many places, yet in others it is always still present. When, indeed, the varices have not been of prolonged duration, that a considerable elasticity of the walls of the veins persists is shown in puerperal women, who often prior to delivery have varicose veins as thick as the finger, which only a few days after that event entirely subside. 3. It is possible that some effect may be exerted by the direct compression produced on the varix by the infiltration-swelling which results.

Whether the favourable results which in all these cases have been so striking will prove definitive cannot be decided, as sufficient time has not elapsed to allow of the cure being regarded as radical. At all events, so simple and harmless a method is well worthy of further trials; and Dr. Vogt has derived good results from its employment in other forms of phlebectasis, in varicocele, hæmorrhoids, and certain forms of angioma.

At the meeting of the Société de Chirurgie on April 24, M. Verneuil introduced the subject of "The Causes and Mechanism of Precocious Erysipelas." He observed that numerous had been the discussions on the causes of erysipelas; for some, even at the present day, it is an exanthem, and for others a primarily local disease. According to some it may arise spontaneously, while others deny that it ever can do so—these last maintaining, and in M. Verneuil's opinion justly, that it has always been preceded by a prior accident or by a traumatism. He does not enter into the question of contagion, merely stating that there is a variety of erysipelas in which the patient gives himself the disease by a kind of auto-inoculation. This variety of traumatic erysipelas is marked by its precocity—that is, by its following the traumatism very speedily, sometimes coming on the same evening, or the next day after an operation. This is an exceedingly important characteristic, quite adverse to the idea of contagion, which could not operate so rapidly. When erysipelas supervenes after the removal of tumours, operations, etc., it does so about the fifth or sixth day, and in these cases it is to be observed that the incisions have been made in healthy tissues. On the other hand, precocious erysipelas appears after small operations performed on parts in a state of suppuration—*e. g.*, after exploration of a bony fistula, extraction of a splinter, or making a counter-

opening for drainage. M. Verneuil has even seen a patient who had erysipelas each time his fistula was explored. The removal of the most recent crust covering a wound may excite it.

"In all these cases of precocious erysipelas there is, on the one hand, a traumatism, and on the other a centre of suppuration, the one dependent upon the Surgeon, the other upon the patient. There takes place here, in fact, something analogous to inoculation; for it is just as if the Surgeon took pus on his lancet from the patient in order to inoculate him with it—for we open largely a series of lymphatic vessels in a place close to another which is yielding pus or septic matters. Absorption takes place, and there is produced erysipelas or angioleucitis, or rather both the one and the other. The more I see, the more I am persuaded that erysipelas and angioleucitis are in nowise different, there being the same commencement with an enormous increase of caloric, the same fever, and the same course. But I only mention this by the way, drawing from it the practical conclusion that this septic erysipelas can be prevented. Holding the conviction which I have just explained, I have pursued the practice of cauterising or touching with tincture of iodine all incisions which I practise in suppurating lesions; and this is a precaution, to the efficacy of which I do not hesitate to attribute a great value."

M. Desprès had long held and published the same opinions, believing that erysipelas is not contagious, and that it is really an affection of the lymphatics. As to its contagion, no proof whatever has been advanced; for it will not suffice to say that it is so because patients in the vicinity of each other contract it. In this way menstruation itself might be said to be so, for many women have this come on earlier when they enter a Hospital where other women are menstruating. When the lymphatic vessels have been opened, we may have sometimes angioleucitis, and at others erysipelas, or both at the same time. M. Chassaignac observed that angioleucitis and erysipelas are entirely distinct. The former is a phlegmasia of the sub-epidemic network, giving rise to red traces, the network being separated by lozenges of healthy skin. There are also the engorged glands, in which the inflamed vessels terminate. In erysipelas we have a uniform colour, with festooned edges, but without regular lines. It may commence by the hand, mount up the arm, and redescend to the hand, which is not the case with angioleucitis. In angioleucitis there are never phlyctenæ, which are present in most cases of erysipelas. In erysipelas there is a serious general condition, while in angioleucitis the patients sometimes clamour for food. Still, it is possible that the two affections may coexist. M. Chassaignac believes in spontaneous erysipelas, and refers to a case in which the disease has attacked the face in three successive years. He also believes that it may be propagated by contagion. M. Blot believes in the distinction between angioleucitis and erysipelas, and could not agree with M. Verneuil that the latter is always preceded by a lesion of the mucous membrane or skin. He referred to the case of an infant, kept most scrupulously clean, in whom this appeared in the back, where no lesion whatever could be discovered. In spontaneous erysipelas of the face, the eruption on the lips is preceded by general symptoms for three days—a condition very analogous to that in eruptive fevers. He is much disposed to believe the same thing takes place in traumatic erysipelas. M. Le Fort, while inclining to M. Desprès' belief in the identity of erysipelas and angioleucitis, believes that the question of contagion must be answered in the affirmative. M. Verneuil, in reply to M. Blot, observed that the initial lesion, whence erysipelas springs, may be a mere microscopic wound. In one of his own cases a patient had what seemed to be a spontaneous erysipelas of the face, until it was recollected that the evening before he had epistaxis, which of course implies lesion of a vessel. The initial lesion may not always be detectable, but since this has been more sought for negative facts have become more and more rare. In 999 times out of 1000 the erysipelas can be referred to such lesion. In M. Trélat's opinion, erysipelas must be regarded as an infectious disease, of which angioleucitis must be looked upon as constituting one of the pathological elements.

PARLIAMENTARY.—THE GOVERNMENT LICENSING BILL—EPPING FOREST—LONDON WATER SUPPLY.

On Thursday, May 2, the Intoxicating Liquors (Licensing) Bill was read a second time in the House of Lords.

On Friday, in the House of Lords, the Bill for preserving Epping Forest was read a second time.

Mr. Kay-Shuttleworth asked the President of the Board of Trade what had been done by the London water companies, the Board of Trade, and the metropolitan authorities respectively, under Sections 17 to 22 of the Metropolis Water Act (1871), regarding regulations as to fittings; and how soon those regulations would be in operation, so that application might be made for a constant supply.

Mr. Chichester Fortescue said the metropolitan water companies had complied with the requirements of the Metropolitan Water Act of last session by submitting a set of regulations, which they had all agreed upon, to the Board of Trade and to the different metropolitan authorities. Until confirmed by the Board of Trade, however, these regulations were of no force whatever, and an inquiry must first be made by the Board of Trade, at which the metropolitan authorities and the metropolitan water companies themselves would have a right to be heard.

REVIEWS.

Red-Cross Operations in the North of France, 1870-72. Printed for the Boulogne English Committee for Aid to the Sick and Wounded in War, by Spottiswoode and Co. London. 1872. Pp. 215.

Nine English residents at Boulogne were formed into a committee, with a French Secretary, at the end of August, 1870, and were at once adopted as a branch society by the gentlemen who had established themselves as a national committee at St. Martin's-place. This book is the account of their stewardship. The active work of the branch was carried out by three soldiers—Colonel Cox, Lieut.-Colonel Berington, and Captain Umiacke—with the assistance of six temporary volunteer convoy agents, four of whom were also members of the British army, three "Drs." (one a M.R.C.S. and L.S.A. of 1869, and two whose names do not appear in the "Medical Directory"), and sixteen ladies. The reports of the gentlemen named, which are included in the book, are straightforward and sensible productions, and show that the writers did their best to carry out the duties that they had undertaken, without fear or favour. So much can scarcely be said for the rest of the work. That excessive self-consciousness and attitudinising for applause which are so common among people who set themselves up as benefactors appear to have found their way by some unlucky accident into the Boulogne committee-room. "They can only talk of England's bounty and sympathy;" "Dressed in England's shirts;" "One is so proud of one's Queen and country;" "Would I not leave the things? Certainly not, *ma sœur;* I am here to bestow England's bounty, and no one else shall give it;" "Proof that the labours of our Society have touched chords of generous sympathy in many a French heart, which will not easily cease to vibrate;" "The purest pleasure and self-congratulation at having been privileged to become, in the hands of Providence," etc.; "La conduite du peuple Anglais est au-dessus de tout éloge et digne d'admiration du monde entier;" and a variety of similar expressions, would perhaps have looked better in a French than in an English report. That such expressions should occur in the letters of good people, whose enthusiasm at the moment of writing outruns their judgment, is natural enough; but to publish them deliberately after a year's interval is scarcely compatible with due self-respect.

The amount of Medical and Surgical work done by the English in the district between Boulogne and Paris appears to have been somewhat minute. Except at Villers-Bretonneux, where some hundreds of wounded were left badly provided for after the battles near Amiens on November 27, at Querrieux on December 23, 1870, and at St. Quentin at the end of January, 1871, the three young Surgeons with the party had little opportunity of gaining experience otherwise than as distributors of stores. Nevertheless, the mere fact of having been eye-witnesses of what was going on in France at that time will

have given them a store of recollections which may be of great value in after life.

Many questions have been raised as to the usefulness of the Red-Cross Society and the results obtained by the expenditure of the contributions of the English people. It cannot be denied that the American Sanitary Commission succeeded better. But it could hardly be expected that the small knot of gentlemen who volunteered themselves suddenly at the outbreak of the war as a committee to collect subscriptions—labouring as they already were under the disadvantage of some fanciful notions about a semi-religious order—should not fail when the unexpected liberality of the public put them in possession of sums of which they had never dreamt, and when their plaything apparatus of "prior," "brotherhood," and "chapter-room" was called upon to carry out a work for which common sense and skill in organisation were imperatively required. A flagrant instance of the results of attempting to administer France and Germany from a committee-room in St. Martin's-place occurs in this report. A "regularly authorised member of the Society" had been to the Crown Prince of Saxony near Paris, and had promised a supply of stores. These were sent by direction of the London Committee to Dammartin from Amiens, a distance of some seventy miles, through a population of excited French, within nine days after the surrender of Metz; and this notwithstanding the objections of the English officers on the spot, who saw the danger of the proceeding, and notwithstanding the fact that an English depôt existed at Meaux, a town within the German lines at less than one-fifth of the distance (pp. 9, 51, 67-70). Thus, to fulfil the pledge ignorantly given by a starring committeeman, Colonel Berington and Captain Uniacke were put in danger of their lives among a howling mob at Amiens; and everyone who has seen a savage and frightened mob—especially in France—in war time can appreciate the danger. Moreover, when this risk had been safely passed through by dint of considerable tact, courage, and self-command—"We were most fortunate," say they; "but in every village we might have been stopped, and it only required one Frenchman to have raised the cry that we were taking provisions to the Germans to have had our waggons destroyed. We were very near it sometimes." But this convincing proof of bad management was scarcely needed; it was impossible to expect anything else from a fortuitous group of amateurs without experience. It is to be hoped that in case of another great war public opinion will enforce a better administration of any new fund that may be created, as well as of the £70,000 which the St. Martin's-place Committee have hoarded from the sum subscribed in the last one.

The estimation in which such an organisation holds our Profession may be understood from the chief agent at Amiens asking leave to keep a young Doctor there, who chanced to come by that way, with this remark:—"A Doctor would be useful to us about the medicines, and this young man appears very desirous of making himself useful in any way." It does not seem to have occurred previously to the gallant colonel who asks the question, nor to the Committee who appointed him, that he might not find himself as thoroughly at home with the pestle and mortar as with the sword. To trust in the Committee, and keep your powders dry, appears to have been thought a sufficient qualification for a temporary great medicine man. Those who think that the civilisation of Europe is not sufficiently far advanced to allow Medical aid in war to be made an international affair may possibly be right, though events seem rather to tend in the opposite direction; but it is at all events certain that no plans of the kind will succeed thoroughly which do not avail themselves of the freemasonry which exists among members of our Profession in all civilised countries. The initiative—in fact, the duty of determining what kind of help is required, and where—must rest with men experienced in the Medicine and Surgery of war, who must see the need with their own eyes; while the different and equally necessary duty of conveying stores to the spots where they are wanted cannot rest in better hands than those of the gentlemen who worked so conscientiously and bravely in France in the winter of 1870-71. Then the home committees would be able to limit themselves to their proper function of collectors and transmitters, and would not have to issue orders in the dark, nor be driven to any more sensational absurdities like patting two combatants on the back and giving them a "tip" of £20,000 a-piece in order to get rid of the money for which they were unable to find a use.

The report of the Boulogne Committee does not furnish any new hints for practice. The area for which they acted was so little involved in the track of the war that they had not, it appears, seen a hospital-train till the end of February, 1871, though the Germans had been using them nearly half a year. But it is clear, notwithstanding the slight tendency to over-colouring shown in the book, that the energy and goodwill of the agents of the branch (two of whom contracted small-pox in the discharge of their duty) produced considerable results in the relief of suffering, and may have tended towards the much-to-be-desired neutralisation of everything relating to Medicine in war. The sum expended by the branch was about £1000, besides goods collected or sent from England in kind.

NEW BOOKS, WITH SHORT CRITIQUES.

Annuario delle Scienze Mediche, riassunto dalle più Importanti Publicazioni dell' Anno. Per i Dottori P. Schivardi e G. Pini. Anno ii., 1871. Milano, 1872. 12mo, p. 376.

*** A small book, teeming with information, and containing abstracts of the books or memoirs of nearly a thousand writers and workers. It is a capital index to the progress of Medicine and the allied sciences during 1871. Amongst English authors we find the names of Clifford Allbutt, W. Cholmeley, Cumming, Marcet, Meadows, and "*l'illustre chemico*, Richardson." Notices of W. D. Moore, T. H. Tanner, Edwin Lee, Sir James Clark, and W. Clements, of Shrewsbury, are found in the "Necrologia."

FOREIGN AND COLONIAL CORRESPONDENCE.

AUSTRIA.

Vienna, May 1.

The Results of Professor Stricker's Investigations on the nature of Dr. Lostorfer's Corpuscles.

The last two meetings of the Vienna Medical Society were crowded with members and visitors anxious to listen to Professor Stricker's discourse on the much-discussed question of the so-called syphilitic corpuscles of Dr. Lostorfer. In the last meeting we noticed amongst the visitors Mr. Jonathan Hutchinson, of London, and Dr. Bumstead, the well-known writer on syphilis, of New York. Professor Rokitansky presided, and Professor Stricker commenced his lecture, declaring that he has undertaken the investigation in order to gain information; firstly, on the nature of the corpuscles discovered by Lostorfer; and, secondly, on the question of their being characteristic to syphilis.

The experiments were commenced with the blood of three syphilitic male patients, in all of whom the corpuscles became visible in great quantities after some days' germination. Thus material was sufficiently furnished for the solution of the first question. But there was a preliminary question to be solved first—namely, whether or not the corpuscles of Lostorfer may not be found in fresh blood. Before entering into that question, the lecturer considered it necessary to describe his method of preparing and preserving his objects.

If objects are prepared for the mere purpose of being examined fresh and with high magnifying powers, they ought to form as thin a stratum as possible. This is best obtained by well cleansing and drying both the object-glass and covering-glass, and by bringing the latter into contact with the blood of a small wound in such a manner as to leave on the glass only a very small drop. By putting now the covering-glass quickly on the object-glass, the small drop turns into a stratum sufficiently thin for examination; if not, a slight pressure on it suffices to produce the desired effect. As the examination is always effected by means of immersing-lenses; as it is, further, important to observe the edges of the covering-glass as far as possible—overflowing of the water necessary for immersion rendering the object useless—it may not be amiss to mention that only a very small drop of water is put on the covering-glass, by means of a pipette, both ends of which are drawn out into capillary tubes.

The appearance of fresh blood is various. In some persons the blood shows nothing but normal elements—namely, red blood-corpuscles, white corpuscles, and minute granules devoid of any colour. Very often, however, small colourless lumps may be seen of the size from a nucleolus to the average magnitude of a nucleus of a white blood-corpuscle. To these granules our attention is particularly drawn if we work with very high powers.

It is not necessary to enter into a description of these bodies.

Suffice it to make the general remark, that many of them have the appearance of pieces of young cells, whilst others make the impression of crossing-points produced by coagulation. Such points are particularly produced where the blood stratum is somewhat thicker, and on spots containing no blood corpuscles, but being traversed by fine filaments. It may be supposed that the filaments, as well as the crossings or ramifications, consist of fibrine. The lumps, having the shape of pieces of white blood-corpuscles, are, like the latter, polymorphous, and only rarely spherical. Besides the elements just described, fresh blood of some persons contains other very minute granules in active undulation. They can be defined by Hartnack's No. 10à immersion, and it is not to be decided whether the undulation is that of Brown, or whether we have some organisms before us. The fact is, however, worth while mentioning, in order to draw attention to the question of the possibility of the existence of very minute lower organisms in the circulating blood of healthy persons. Fresh blood, however, contains also, though rarely, bodies of which it is very difficult to say whether they are accidental admixtures or whether they have already been in circulation. They are generally of spheroid shape, have dark contours, and are characterised by their being of a very dark hue when accurately focussed with very high powers (Hartnack No. 15).

The aim of germination for the lecturer's purpose consists in preserving good objects, accessible to air, as long as possible. This end is arrived at by the objects being put in some space where, on the one hand, they are prevented from exsiccation, and, on the other, protected from the accession of evaporated water. For this purpose they are placed in a camera exhibiting a comparatively small surface of water in respect to the cubic space of the camera. This exsiccation-glass affords room for a small stand to contain about a dozen objects, which, if provided with tickets, permit the placing of preparations of different individuals into the same glass and on the same stand. For the purpose of germination the preparations are not made so thin as described above. Before the object is prepared Professor Stricker forms on the object-glass two small ridges of wax, so as to support the covering-glass. After the preparation has been made he presses the covering-glass on these ridges until the rouleaux assume a reticulated arrangement. The meshes of that net, filled with plasma (plasma-islets), contain germinating-spaces exceedingly suitable for our purpose.

(To be continued.)

GENERAL CORRESPONDENCE.

LATENT MALARIOUS DISEASE.

LETTER FROM DR. CHRISTIE.

[To the Editor of the Medical Times and Gazette.]

SIR,—I wish to mention a case of long continuance of malarial poison in the system before development, which appears curious. I must state that I have for six years practised Medicine close to Washington, America, on the eastern branch of the Potomac river, where remittent and intermittent fever in all their varied forms prevail so extensively that some years not one in ten escapes the malady. The manner of seizure and its effects vary infinitely—a single type case of ague, with a cold stage, hot stage, and sweat, may be all the inconvenience one may feel during an epidemic; while another, apparently under precisely the same exposure and conditions, may, by repeated attacks, be rendered so anæmic and ill that to a casual observer he would appear in the last stage of phthisis. Intermittent attacks of any kind, of diarrhœa, vomiting, headache, without fall or rise of temperature, is the way some are affected, while others are sometimes seized with a sudden and violent attack of general *malaise*, in which it would be impossible to say in what part of the body most discomfort is felt, each organ asserting its claim to bearing the palm in that respect. Were it not for quinine, which many keep in their houses, deeming it as much a necessary of life as salt, I think many populous parts of the States would be uninhabitable. But with regard to the case I began about: I left Washington the night of March 22 in strong health, sailed on the 23rd from New York for Liverpool; once during the voyage feeling ill, the possibility of malaria entered my mind, but a little hot brandy-and-water quickly dissipated the feeling and idea; landed on April 5, and reached London the same day. On the 7th, while in a Turkish bath, I suddenly became quite ill, came home, and was unable to sit up. After a couple of days' illness, I began quinine; thirty grains in twenty-four hours put me on my feet. Had I not taken this my recovery would have been postponed. Thus malaria was doubtless carried in the system from March 22 to April 7, sixteen days before making its appearance.

I am, &c., ARTHUR CHRISTIE, M.D.

9, Stanhope-street, Hyde-park-gardens.

PRACTISING CHEMISTS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondent, "Fifty-five," in his letter concerning chemists who practise as Medical men, has the following words:—"But it may be said, they dare not come out and visit. Wait a few years, and see who shall dare hinder them." Those who think that chemists do not dare now to visit, and visit too as regularly and openly as any qualified and registered Medical man, are greatly in error, for I myself know those who are largely employed by both rich and poor, and who attend all cases of minor disease, though they are wise enough to refuse to undertake any case that threatens danger, thus avoiding all risk of exposure by an inquest. They carry stethoscope, pocket-thermometer, pocket-case of instruments, ostentatiously use all the most modern aids to diagnosis, and are looked upon by the multitude as at least equal in science and skill to the qualified Practitioners of the district. The comparatively few and far between dangerous cases, with, as your correspondent says, "their enormous labour and anxiety which no money can compensate," thus fall to the qualified Practitioner who can give a certificate in case of death, while the many slight cases which ought to help so largely to make up the Practitioner's income fall into the practising chemist's hands, who is always fawning and obsequious, and who, professing to make no demand beyond that for Medicine and cabhire, is regarded as a generous man who gives his time and skill gratis, while the qualified man is one who, with no greater advantages but the power of giving a certificate, demands money for that which the other gives freely. The double gratification is thus enjoyed by an "enlightened public," of patronising a deserving and "good-hearted" man and of saving its own pocket. Consequently, when danger compels qualified attendance, it grumbles and grudges and delays payment as long as it can; the Medical man being fortunate if all the while the chemist is not in back-door attendance, criticising his treatment, and altering it from time to time according to his "better judgment." I know that this often happens in regard to one of the chemists whom I have now in my eye.

As to "waiting a few years" before anyone dare hinder this irregular practice, I would ask you, Sir, who dares, or rather who has the power to hinder it now, for I know no law by which I, and those circumstanced like me, can protect ourselves. If there be any method, present or prospective, by which we can now, or may in future be able to do so, I, and I am sure many others, will be much obliged by your pointing it out. I enclose my card. I am, &c.,

May 6. FIFTY-FIVE No. 2, AND A CONSTANT READER.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 23.

T. B. CURLING, F.R.S., President, in the Chair.

A PAPER by Dr. C. THEODORE WILLIAMS was read, "On the Results of Warm Climates in the Treatment of Pulmonary Consumption, as exemplified by an analysis of 251 cases." The author, after dwelling on the difficulties involved in the selection of proper climates for consumptive patients, enumerates three grounds for forming an opinion. First, the alleged immunity from phthisis of certain localities. Second, the existence in certain localities of atmospheric conditions the reverse of those under which the disease was contracted. Third, the ascertained results of certain climates on similar cases. After pointing out objections to the "immunity" found arising from diversity of the climatic conditions accompanying it, he discusses the second, or "contrast" ground of selection, and in order to explain it, the causation of phthisis is considered and shown to be probably twofold: first, inflammatory—that is, influences which excite or keep up inflammatory affections

of the lungs, such as great variations of temperature, a combination of cold and damp, etc.; second, septic—that is, influences which blight and corrupt the bioplasm of the blood or lymphatics, such as foul air, bad nourishment, the combination of warmth and damp, etc. The differences in the type and distribution of phthisis arising from each of these causes are pointed out as indications in climatic treatment, dryness and warmth being desirable in consumption of inflammatory origin, and dryness and purity of air for consumption of septic origin. The far greater importance of the third or "fact" ground is then dwelt on, and, after regretting the paucity of published information of this character, and especially of statistics, Dr. Theodore Williams furnishes, from the practice of Dr. C. J. B. Williams and himself, a statistical account of 251 cases of consumption who passed periods varying from one to eleven winters in warm climates out of the United Kingdom. Sex: 190 were males and 61 females. Age: The average age at the onset of the disease was among the males 29·04, and among the females 23·39; nearly half the number of both sexes being attacked between 20 and 30. Predisposition: Family predisposition was present in 52 per cent., and hereditary in 27·8 per cent. Origin: 11 were cases of scrofulous phthisis, in 55 the disease had an inflammatory origin, in 41 a catarrhal, and in 2 a syphilitic; 2 cases followed on asthma, 6 were instances of hæmorrhagic phthisis, and 130 of chronic consumption. Hæmoptysis existed in 62½ per cent. in varying amounts. State of lungs: At the time the patients quitted England 61 per cent. were in the first stage, 21½ per cent. in the second, and 17½ per cent. in the third stage. Sixty-seven per cent. had one lung alone affected, 33 per cent. both lungs. A comparison is then made between these cases taken separately and 1000 cases of which they form a part; and it is shown that in the "climate" patients the disease was more advanced, but at the same time more local in its character. The climates of which a trial was made were classified as follows:—1. Moist temperate, as Pau, Bigorre, and Rome. 2. Dry climates of the Mediterranean, including the Riviera, Malaga, Algiers, etc. 3. Very dry climates of Africa, including Egypt, Cape of Good Hope, and Natal. 4. Moist Atlantic, as Madeira, the Canaries, and the West Indies. 5. Miscellaneous, including India, the Andes, New Zealand, etc. 6. Sea voyages. The average of winters passed abroad by each patient was 2½; and of eighteen patients who took voyages, the average number of voyages per patient was 2½. The results of the climate on the *general* condition of these patients were that 65 per cent. were more or less improved, 6 per cent. remained stationary, and 29 per cent. became worse. The *local* effects on the lungs were, that in 43½ per cent. cure or decrease of the disease took place, in 14 per cent. it remained stationary, and in 42 per cent. it increased either in the way of advance or extension, or of both. The influence of the various groups of climates is next considered; and from the results of a table it is shown that the *moist* climates, temperate or warm, yielded a percentage of "improved" varying from 50 to 55, of "stationary" varying from 4½ to 14½, and of "worse" from 32 to 45; also that the *dry* climates yielded percentages of "improved" varying from 58 to 65, of "stationary" from 20 to 25, and of "worse" varying from 10 to 21; and that of the patients who took sea voyages, 89 per cent. improved, 5½ per cent. remained stationary, and 5½ per cent. became worse. The marked difference in the effects of the dry and moist groups gives rise to an inquiry as to whether it might not be accounted for by difference in the class of cases sent to each group of localities. This results in the conclusion that, except as regards the Pau cases, which were slightly more unfavourable than the rest, there was no important difference; and the natural inference is, that the less favourable progress of the patients was owing to some element in the moist climates themselves. The leading meteorological features of the climates of Pau, Rome, and Madeira are then sketched, the effects of each pointed out, and their less favourable results attributed to their moister and less stimulating character. With reference to the question whether or no certain forms of consumption derive special benefit from any particular climate, the author deduces from fifty-five cases of phthisis of inflammatory origin who wintered in various warm or temperate localities, that a dry climate is more favourable than a moist one for the treatment of this form of the disease; and as regards phthisis of catarrhal origin the deduction from forty-one patients is that "warmth and equability of climate are more important than dryness for patients of this description." Forty of the climate cases died, and 202 were living at the last report. Among the former the average duration of life was eight years, and among the latter about nine years, which, when compared with the average of life among patients who did not go abroad, showed a slight extension of duration. The effect of cod-liver oil in prolonging life is demonstrated by the instances of thirteen patients, who, though they had the full advantages of climate, either omitted oil or took it irregularly. Among these, who are all dead, the average duration was four years eight months and a half.

Dr. Wilson Fox, professing his inability to grapple with the vast array of figures presented to the Society, was fain, by a comparison of the thousand cases brought before the Society some time ago by Dr. Williams with those now before him, to come to the conclusion that climatic results are *nil*, inasmuch as no single climate exhibits a result equal to all the cases quoted collectively. He also referred briefly to the fact that many cases of phthisis, apparently hopeless, live on in London year after year, and asked the author if cases of septic and inflammatory origin can be accurately distinguished, and if so, how?

After some brief complimentary observations by Dr. Dobell,

Dr. Hermann Weber expressed his belief that mountain air most benefited cases of the inflammatory type, and that early hours and quiet habits had also much to do with success of treatment.

Dr. Heywood Smith quoted personal experiences of a winter on the Riviera in proof of the opinion enunciated by Dr. Williams, that a high and dry was better than a moist climate.

Dr. Leared had arrived at the conclusion, from personal experience, that climatic laws with reference to phthisis were empirical, and quoted Iceland as a country in which phthisis is unknown, but where the houses have no ventilation; and Palestine, part of which is below the level of the sea. He asked the author how, during life, the particular variety of phthisis could be accurately determined?

Dr. Sutro and Dr. Douglas Powell made brief observations, and

Mr. Charles Brooke remarked that there were two distinct climates in Natal, the contrast between the coast-line, in which the rainfall was enormous, and the plateau being very striking.

Dr. C. J. B. Williams replied to so much of Dr. Wilson Fox's criticisms as referred to the inflammatory, catarrhal, and septic varieties, and remarked that by the inflammatory type were meant those cases that commenced in a distinctly acute attack, whether pneumonic, pleuritic, or pleuro-pneumonic, and that subsequently drifted into phthisis. He believed that Madeira was particularly suited to cases of phthisis aggravated by frequent catarrhs; that though statistics on this as on all other Medical subjects ought to be received with caution, he could point out many cases benefited by residence in particular places.

Dr. C. Theodore Williams expressed his obligations to the Fellows of the Society for their able but commendatory criticisms of his paper, and, in reply to Dr. Wilson Fox, explained that the classification of the states of the climate patients at last report differed materially from that used for the 1000 cases included in his paper of last year. In the former, the report, which was noted under the terms "much improved," "improved," "stationary," and "worse," referred to the patients' condition at the close of one or more winters spent abroad. In the latter, the report, under the terms "well," "tolerably well," and "invalid," applied to the patients' condition at the end of the entire treatment, which extended over many years, the average being eight. The duration of the climate cases was greater than the duration of the patients who did not go abroad, though the difference was small; but it should be remembered that the average number of winters spent abroad was only two and one-third; and also that the influence of the less favourable climates was taken into account. With reference to cases of inflammatory origin, Dr. Theodore Williams had, in a former paper, decisively proved by statistics that they had a longer average duration than the rest. In reply to Dr. H. Weber, he stated that the distinction between septic and inflammatory cases had been arrived at from observation of the out-patient department of the Brompton Hospital, confirmed by Gnilbert's researches in Peru, and that some of Dr. Weber's own cases showed the benefit of mountain air in phthisis of septic origin. The benefits of cold pure air might be highly advantageous to invalids strong enough to take exercise sufficient to keep them warm, but many consumptive patients, and especially ladies, were unable to do this, and for them the combination of warmth with purity of air was desirable. After replying to Drs. Leared, Heywood Smith, Powell, and Dobell, Dr. Theodore Williams thanked the latter for the complimentary way in which he had spoken of the labours of Dr. C. J. B. Williams and himself, and, in conclusion, remarked that it would have been impossible for him to frame

the present statistics had not Dr. Williams's notes been most carefully kept.

At the conclusion of the meeting Dr. Dobell exhibited a Bed invented by him for patients with severe heart disease. The bed had been constructed by Mr. Heather Bigg. Many chronic cases of heart disease passing through a stage in which the patient is unable to lie down or even to lean back beyond the perpendicular line without distress or danger, coupled with the difficulty of finding any support for the head and elbows in front which shall not continually slip away when the weight of the patient is thrown upon it, this couch has been devised to meet these requirements, and to support the head and arms in a position favourable for obtaining a certain amount of comfort and a passing chance of sleep.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 16.

Mr. J. Wood, President, in the Chair.

The Chairman announced that, on the first meeting in May, Dr. Sanderson would commence a discussion of pyæmia, and would illustrate his subject by specimens.

Mr. Rivington exhibited a specimen of Bloody Tumour connected with a Nerve. The patient was a female, and in her axilla was a good-sized tumour, nearly as large as a cricket-ball. It was of nearly two years growth, and had been painful for five weeks. He tapped it, and blood came away. The tumour was then removed, and was found to be made up of cysts containing blood-clots. It was connected with the musculo-spiral nerve; but there was no paralysis. It was not an old aneurism. (Referred to Morbid Growth Committee.)

Dr. Broadbent exhibited some Eyes the subject of Retinal Hæmorrhage in Bright's Disease. The patient was a female, aged 50. Some months ago she had a sudden fit of fury, and at intervals from that time suffered from fits beginning in one leg and ending in a regular epileptic seizure. Her mental powers were feeble, and she could walk if led by the fingers. She had albuminuria and a dilated heart. She was attacked by pneumonia, and died not long after. During life the retina was elevated and vascular, and in it were seen a number of hæmorrhages. He thought there might be a cerebral tumour, but there was not; only a contracted kidney.

The same gentleman also showed Eyes from a case of Meningitis. There was injection of the commissure and optic nerves, with some elevation of the disc. The girl had been ill a fortnight. In the Hospital she seemed stupid, lay on her back, and was partly paralysed. She died twenty-four hours after admission.

Dr. Murchison related the case of a girl, aged 22, who had Scarlatina followed by Dropsy. A fortnight after she had convulsions and impaired sight. Her eyes were examined by the ophthalmoscope, and signs of hæmorrhage were found.

Dr. Thorowgood exhibited a specimen of Stricture of the Œsophagus from a man, aged 64, who had complained of vomiting and what seemed dyspepsia. He used to bring up a quantity of pieces of meat after his food. He had not been long in the Hospital when he died suddenly, after sucking an orange. There was a pouch just above the stricture, and this was filled with bits of orange. There was no other disease. In answer to a question whether this pressed on the trachea, the gentleman who made the post-mortem examination said it did not.

Dr. Langdon Down exhibited some specimens of Abscess in the Liver from a man who had never been abroad. For three months he had suffered from swelling in the side, and had had ulceration of the stomach. Six months before the man had suffered from dysentery, and he thought the abscesses might be secondary. He drew off a quantity of fluid by the inspirator, but pleurisy followed, and he died. There were large abscesses surrounded by pultaceous matter, and the colon was covered with ulcers of various sizes. It was not common to find such an amount of disease originating in England.

Mr. Rivington had recently seen a case of abscess of the liver pushing the heart over to the left. The man had been in India.

Dr. Galton said that in China he had two cases of abscess of the liver perforating the lung and ending in recovery.

In reply to Dr. Cayley, Mr. Rivington said the evidence of the nature of the disease in his case was an opening in the side, whence issued pus and liver-tissue.

Dr. Payne exhibited a specimen of an unusually large Tumour growing within the Heart. It was nearly as large as a billiard-ball, and almost filled the right auricle. Continuations of the same growth were traced in the superior vena cava and some of its branches. There was, besides, a tumour in the anterior mediastinum; and this appeared to be the primary seat of the growth, which might thus have extended into the thoracic veins, and thus into the heart. All these growths, though eminently malignant in their mode of growth, were in structure of the lymphatic or lymphadenoid type. The remarkable point in the history was that both the patient and his friends traced the symptoms of cardiac obstruction from which he suffered to over-exertion on one particular occasion.

Dr. Powell asked if he referred to tumours in the anterior mediastinum or to those originating in the glands in the posterior mediastinum. Their anatomical character was strikingly different—those originating in the glands were apparently cancerous; those in the anterior mediastinum were lymph-adenomatous.

Mr. Hulke said that out of twelve malignant tumours of the anterior mediastinum which he had seen, not a single one was anatomically cancerous. All were lymphadenoma.

Dr. Kelly showed a Heart covered in certain parts with Vegetations. The child was 9 years old, and had been healthy till the end of last month, when chorea set in, and all the limbs were jerky. There were signs of fever, but the heart's sounds were normal. The temperature went up to 106°, and the child died comatose. There were rows of vegetations in the mitral and tricuspid valves, but only on the auricular side. The right lung was hepatised, and the liver fatty; there was no embolism. The membranes of the brain were healthy, and no plugs could be found. The corpora striata were soft—more so in parts; the vessels were fatty, and there were numerous small hæmorrhages. Generally when there was high temperature in heart disease there were plugs to be found, but not so here.

Dr. Broadbent said there were few deaths from chorea without hearts such as this. The changes in the corpora striata were of great importance.

Mr. Durham exhibited a specimen of Intussusception of the Bowel. The patient was a male, passing slimy motions streaked with blood. Obstruction in the bowel was diagnosed, and they could feel a tumour in the rectum resembling an invaginated gut. Constipation was absolute. They tried injections, but could get nothing to pass. Colotomy was performed, and a quantity of fæces removed, but the patient had erysipelas, and died. The upper part of the rectum was invaginated into the lower. Just at the bend was a growth of a villous kind, which was probably the cause of the invagination.

Dr. Bristowe exhibited the Brain of a Female, aged 42, who suffered from Right Hemiplegia after a fit. She was aphasic, but was beginning to understand words when she had a recurrence of the attack. Then amnesia existed to some degree. Suddenly she had something like a fit, but there was no paralysis. Her feet became cold and livid—the left first and most—and she died. The left corpus striatum was found completely destroyed and collapsed. In the heart was a softening clot; in the right lung was a gangrenous abscess; in the aorta was a clot extending downwards from the renal arteries.

Dr. Broadbent said this was the only case he had heard of where there was merely lesion of the corpora striata, and yet loss of speech followed for so long a time. The change in the character of the loss of speech was very important.

Dr. Bristowe next proceeded to show a specimen of Obstruction of the Bowels from a man aged 23. Seven or eight months ago he had obstruction, with pain; and this time he was admitted to the Hospital with pain, sickness, and constipation. His bowels had not been open for three weeks. The pain was paroxysmal. Opium and warm baths at first did much good, but by-and-by the bowel swelled up to an enormous size. With enemata a little fæces came away, but not much. To relieve the distension, he punctured the bowel. Very little air escaped, and a little fæces. Peritonitis and death followed shortly. There was no inflammation near these spots, but there was perforation of the ileum near the cæcum, and the extravasated fæces had caused the peritonitis and death. The stricture was at the junction of the transverse and descending colon. It was caused by a colloid growth, and was quite impermeable. There were a few ulcers in the cæcum and ileum nearly perforating the gut, and one had gone through.

Dr. Murchison said he had seen a case where puncture had done great good. The patient was a lady, who was much distended, partly from flatus. Sir James Paget sanctioned the proceeding. Air passed out, and no fæces. There was great relief, but the patient died a week after.

Mr. Wood had punctured the bowel for accumulation of gas,

much to the relief of the patient. In one case it did not reaccumulate till death.

Mr. Croft related the following case of Osteo-Sarcoma of Femur:—J. R., aged 18, in May, 1871, was the subject of a tumour as large as a fist on the front of the lower third of the left tibia. It had been growing seven months, and appeared to be an osteo-sarcoma. The limb was amputated no higher than the tubercle of the tibia, at the desire of the friends. On section, the tumour was of a graduated ruddy colour, was very vascular, and consisted of a soft structure, supported by a reticulum containing osseous spicules. The reticulum was composed of fibres and spindle-shaped cells, and in many places presented growths of bone, including canaliculi. The alveoli contained cells and nuclei of various forms—round, ovoid, polygonal, and even caudate. These all were multinucleolated, and many cells were multinucleated. The surface of the tibia was eroded, and the growth had invaded the medullary structure. The patient quickly recovered from the amputation, and returned to his employment. Four months after the operation he noticed that the knee had begun to swell. On March 15, 1872, he was readmitted into St. Thomas's Hospital with a knee-joint nineteen inches and five-eighths in circumference. A femoral gland was as large as a small egg. He was suffering severely, and the growth was increasing rapidly. On April 3 amputation at the hip-joint was performed, and the enlarged glands were dissected out. The patient had made an excellent recovery from the effects of the operation. On examination of the limb the tibia was found to be quite free from the disease. The joint had not been invaded. The growth appeared to have sprung from the condyloid extremity of the femur. Mr. Stewart, curator of the museum, had injected the tumour, but only partly succeeded—sufficiently to show great vascularity. Colour of section varied from greyish-white to chocolate. Septa radiated from a small centre of cicatrix-like fibrous texture, forming a reticular structure. The stromal tissue and the cells and nuclei in the alveoli were composed of elements similar to those found in the first tumour. The same sort of osseous deposits were also observed. The gland tumour was soft and brain-like on section; it yielded a juice rich in round and ovoid nuclei, containing several nucleoli. After hardening in chromic acid, this manifested a reticular structure, which consisted of connective tissue. Mr. Croft drew attention to the fact that the growth had not recurred in the stump of the bone on and in which it had been situated. He thought the character of the stroma and the cell-shape distinguished it from encephaloid cancer.

CLINICAL SOCIETY OF LONDON.

Friday, April 12.

Sir William Gull, Bart., President, in the Chair.

A paper by Dr. Cockle and Mr. Christopher Heath was read, "On a case of Aneurism of the Arch of the Aorta treated by Ligature of the Left Common Carotid Artery." The patient (who was brought before the Society) was a man, aged 48, a farm labourer from Cambridgeshire, who came under Dr. Cockle's care in January, 1872. He had experienced pain in the right side of the head, neck, shoulder, and chest, for four or five years, attributed to rheumatism. In April, 1871, he noticed a pulsating swelling in the hollow of his neck, and was in Addenbrooke's Hospital for two months without relief. After Christmas, 1871, he was compelled to give up work, from the increasing pain in the shoulder and neck. He presented marked symptoms of aneurism of the ascending and transverse portions of the arch of the aorta. There was displacement of the right sterno-clavicular articulation, with projection of the right and upper portion of the sternum; and the episternal notch was filled by a pulsating swelling. There was a strongly heaving and expansile impulse over the whole of the swelling, and marked dulness on percussion existed over the whole area of the tumour. No bruit could be heard, but a double concussion-shock was felt. The respiratory murmur was feeble or absent over the upper portion of the right lung. The heart-sounds were dull and muffled, but without appreciable murmur. There was no cough or difficulty of deglutition. The left radial pulse was decidedly feebler than the right; and the left pupil was much dilated, and the left eye congested. On exertion, he complained of shortness of breath, palpitation, and pain. Mr. Heath tied the left carotid artery above the omo-hyoid on February 26, 1872. Carbolised catgut was used for the ligature, and the wound was covered with cotton-wool. No constitutional disturbance followed. Within forty-eight hours the patient could lie and sleep on his right side, which he had been unable to do before. The left pupil became natural, and the congestion of the eye disappeared. On the eighth day, when the dressings were removed for the first time, the wound was found completely healed by first intention. Since the operation, the condition of the patient had in every way improved, the chest having become flatter, and the heaving impulse greatly diminished. The patient was free *from* all pain or inconvenience. He was brought before the Society before returning to the country, and the authors proposed to report upon his condition at a later period.

Dr. Anstie showed some tracings of the pulses before and after the operation. These showed decided improvement in the left pulse. The aneurism had probably partially consolidated, but it was still felt to beat in the neck. There was a tangible difference between the two pulses.

Dr. Andrews asked if rest and diet had been tried. He could not understand how ligature of the carotid could affect an aortic aneurism, though confinement in bed might.

Dr. Anstie said he was inclined to believe the carotid was affected as well as the aorta.

In reply to Mr. Barwell, Mr. Heath said he acted on no very definite principle, but experience abroad had shown the practice to be successful. He had already tried ligature of both the carotid and the subclavian with success. He this time tied the branch of the vessel next beyond the affected spot—that is, in this case, the left carotid—and the result had surpassed his expectation. The patient had been for some months in Addenbrooke's Hospital, and did no good.

The President asked Dr. Anstie and Mr. Barwell, as a committee, to report on the case. Professor Humphry might also be asked to look after him. He considered there was something more than mere mechanical effect.

Mr. Gant related a case of Spontaneous Gangrene of Both Feet in a messenger-boy, aged 16, who, when he was about 7 years old, had a decidedly bluish aspect, was always breathless, and complained of feeling cold even in warm weather. The boy himself stated that he had suffered from shortness of breath, with occasional dyspnœa, ever since he could remember; otherwise the boy's general health had remained unaffected. Latterly he had been much exposed to cold during very severe weather. After a day's exposure, during the night, when in bed, his feet "burned very much"; and the next morning the great toe and two adjacent toes of both feet were nearly black, and quite insensible. In this state he walked to the Royal Free Hospital. After admission, gangrene progressed until it reached the dorsum of both feet, presenting to some extent the appearance of senile gangrene. But the livid blueness and œdema of both legs up to the knees contrasted with the pale, shrunken condition of the legs as observed in senile gangrene; and the gangrene itself, at this early stage, was more succulent or moist than dry. Pulsation was quite free in both the tibial arteries of the feet. A physical examination of the chest was made by Dr. Cockle. The heart's action was feeble but regular, and unaccompanied by any appreciable murmur. Pulsation could be readily seen in both carotids, and a diffuse forcible pulsation in the external jugular veins. Pulse at the wrist 27 per minute, small, feeble, irregular. The only pulmonary signs were emphysema, and slight bronchitis at the bases of both lungs. Respiration was oppressed—16 per minute. The temperature in the axilla was—morning 103·8°, evening 101·6°. The urine was scanty and high-coloured, with a copious deposit of greyish-brown lithates and of albumen. The patient was lethargic, dull of understanding, and he spoke with a stridulous voice and broken articulation. Occasionally, when the heart's action became very feeble, and dyspnœa very urgent, fits of unconsciousness occurred, accompanied on one such occasion with epileptic convulsive movements of the upper limbs and face, this state lasting two hours. A line of demarcation having formed on the dorsum of the feet, Mr. Gant performed double amputation by modifications of Chopart's and Hey's operations. Both stumps united soundly in a week. But the cardiac and pulmonary conditions recurred at intervals with increasing severity; and in a fortnight the patient sank into a state of coma, and died quietly. The post-mortem examination showed that the heart in its right half was the seat of disease, the origin of which would seem to have been at a very early period of life. The right auriculo-ventricular opening was enlarged sufficiently to admit two, or even three fingers; but the three segments of the valve were healthy; the auricular cavity was dilated and distended with blood to more than twice its natural size; the wall of the auricle, not thickened in any part of its extent, was, between the musculi pectinati, reduced to a membranous state; the foramen ovale was entirely closed;

the right ventricular cavity was also somewhat enlarged, and equally distended with blood, but the wall was not hypertrophied. The pulmonary valves were quite healthy. On the left side of the heart no morbid condition was discovered, either as regards the cavities or the valves. Recent pericarditis had occurred. Both lungs were emphysematous, but the texture generally was much congested, and the bronchial tubes were engorged throughout with frothy mucus. Recent pleurisy had taken place on both sides of the chest. The abdominal viscera generally were much congested, and the liver and kidneys considerably enlarged by interstitial deposit, passing into fatty degeneration. The brain exhibited marked venous congestion. Mr. Gant was disposed to draw the following two conclusions:—1. That the gangrene of both feet, depending evidently on systemic venous congestion, was caused by the enlarged state of the right auriculo-ventricular opening; and the accompanying dilatation of the auricle and ventricle, being thus essentially cardiac, although the immediate and exciting cause might have been exposure to cold. 2. That the immediate cause of death was pericarditis, pleurisy, and more particularly capillary bronchitis.

The President said there was not much to discuss in this case, it was so complete clinically. The patient was so weak there was hardly likely to be a bruit.

Dr. Broadbent thought it rare that from simple feebleness of the right heart such a train of symptoms should flow. He thought the kidneys the origin of the gangrene—perhaps, too, of embolus in the lung.

In reply to Dr. Cholmeley, Mr. Gant said there were no changes in the vessels in the limbs.

Dr. Broadbent related a case of Tumour of the Pons Varolii and Medulla in a man, aged 46, with a syphilitic history and aspect, who, while cutting grass in the sun, was suddenly seized with giddiness, and suffered afterwards from pain in the head, vertigo, double vision, and facial distortion. He entered the Hospital six weeks after the attack, and was then found to have slight weakness of the right limbs; marked paralysis of the left side of the face, of the kind seen in hemiplegia, and not involving the orbicularis oculi, as in Bell's paralysis; lateral deviation of both eyes to the right, with double loss of vision; sensation over the area of the right trigeminus; difficulty of deglutition, and indistinct articulation, the voice also having a nasal twang, due to partial paralysis of the soft palate. The ophthalmoscopic signs were negative. There was no albuminuria, and no heart disease. The diagnosis given was tumour in the pons and medulla. He remained under treatment for about three weeks, taking iodide of potassium in doses gradually increased to sixteen grains three times a day. The headache from which he continued to suffer on admission was greatly relieved, and he walked much better. At the end of this time he insisted on leaving the Hospital, and a week later he was found one morning dead in his chair, having got out of bed in the night to smoke. The only morbid appearances discovered were two small tumours just beneath the floor of the fourth ventricle, near the median line—one in the lower half of the pons, the other near the lower end of the ventricle. The tumour in the medulla undoubtedly gave rise to the dysphagia, and was the cause of the sudden death, as it was in close relation with the nuclei of the glosso-pharyngeal and pneumogastric nerves. The question of greatest interest was, whether the tumour in the pons could have given rise to the paralysis in the left side of the face and the lateral deviation of the eyes to the right, as well as to the anæsthesia of the right side of the face and head. Had the paralysis simply been of the sixth and seventh nerves, from lesion involving their common nucleus, there would have been no difficulty; but both the facial and ocular paralysis were such as is met with in hemiplegia, and, if caused by the tumour in the pons, could only be due to interruption of the fibres which connect the nucleus of the sixth and seventh nerves with the corpus striatum of the opposite side immediately after their decussation. No lesion was discovered, by most careful search, either in the crus or corpus striatum; and the author was inclined to believe that the explanation given above was the true one, and the more so because the lateral deviation of the eyes, usually a fugitive phenomenon, was here persistent.

Dr. Buzzard said the lateral deviation of the eyes to the right was interesting; and, as it turned out, there was nothing the matter with the spot usually connected with the lesion—viz., the corpora striata. Perhaps the condition was one rather of spasm than paralysis. Irritation of the corpora quadrigemina produced that, especially irritation of the nates. There was something of the kind in unilateral epilepsy. Was there anything wrong with the corpora quadrigemina?

Mr. Carter asked if the direct or indirect method of using the ophthalmoscope had been used. He was quite sure the former was the better for such purposes.

The President said the case was interesting physiologically, especially with regard to the decussation of fibres. We did not know well the conditions of the deposit of syphilitic matter in the nervous system.

Dr. Broadbent said the indirect plan of using the ophthalmoscope had been used. There were no changes of importance. Lateral deviation might be due to spasm, but certainly, too, to paralysis. Here it was undoubtedly paralytic. The corpora quadrigemina were unaffected.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, April 3.

J. Braxton Hicks, M.D. F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—J. R. Bosworth, M.R.C.S., Sutton; C. E. Buckingham, M.D., Boston, U.S.; C. P. D. Chittenden, L.R.C.P., Lee, Kent; Thos. Savage, M.D., Birmingham; and A. W. Tomkins, M.D., Leamington.

Dr. Aveling exhibited his Apparatus for immediate Transfusion, which he has now modified by adding a tap at each end of the tube close to the nozzles. He had performed the operation successfully a few days previously. Dr. Aveling believed that the methods of preventing coagulation adopted when the mediate mode of transfusion was used were the cause of needless deterioration of the blood and of unnecessary delay.

Dr. Barnes suggested that instead of filling the syringe and tube with warm water it would be better to use a solution of phosphate of soda. In reference to the defibrination of blood in transfusion he would observe that, however carefully the filtration might be performed, it was still to be feared that in the filtrate some fibrine might coagulate and act as minute emboli.

Dr. Playfair had found no difficulty in defibrinating the blood, and he considered defibrination to be the best means of retaining the blood fluid. In his own case a gravitation instrument had failed to act satisfactorily, probably because there was not sufficient force to overcome the resistance of the venous wall on the nozzle of the instrument.

After some remarks by the President, Dr. Routh proposed a recommendation to the Council of the Society to appoint a Committee to report generally on the operation of transfusion.

Dr. Cleveland also hoped the Society might be enabled to give directions for facilitating the operation, and referred to a fatal case he had seen in consultation, in which, had it not been for the uncertainty of the operation, transfusion would probably have been performed, and perhaps a life saved.

The recommendation was carried unanimously.

Dr. Heywood Smith showed a modification of his Angular Scissors. The small scissors had curved blades, and when bent forwards would be useful for the removal of polypi, and bent backwards for cutting the sutures after the operation for vesico-vaginal fistula.

Dr. Hall Davis communicated a case of Inversion of the Uterus. The case came to the Middlesex Hospital ten months after labour. The patient was very prostrate from hæmorrhage. Ordinary efforts at reduction having failed, and the patient being much too weak for endeavours by sustained elastic pressure during consecutive days to effect reduction, the everted organ was removed by the single-wire écraseur. The patient was discharged convalescent on the thirty-third day. The inverted organ, which was exhibited, was much involuted; it contained parts of the ligaments, but not the ovaries.

Dr. Barnes read a paper "On the Essential Cause of Dysmenorrhœa, as illustrated by cases of Menstrual Retention." The author sought, by comparison of different cases of dysmenorrhœa, to discover a common essential cause. Having discussed the question of "irritable uterus," and adverted to the evidence accumulated since the time of Gooch and Ferguson in proof that cases of neuralgic and constitutional dysmenorrhœa were being gradually transposed under closer clinical analogies to the class of obstructive dysmenorrhœa, the author stated the proposition that the essential condition of a large proportion of cases of dysmenorrhœa was really retention of menstrual fluid. He illustrated this by several cases typical of various kinds of obstruction, and especially by some of congenital or acquired stenosis and atresia of the genital canal. For example, one was that of a healthy woman

who never suffered dysmenorrhœa until after a severe labour, which was followed by sloughing of the vagina and gradual atresia by cicatricial contraction. As the constriction advanced dysmenorrhœa become more and more severe, until, the vagina being completely obliterated, the phenomena of complete retention ensued. When the vagina was restored by operation, the dysmenorrhœa was cured. So in cases of imperforate hymen there was dysmenorrhœa from retention. Some points in the history of this affection were discussed. The term "amenorrhœa" usually applied was bad; menstruation went on; it was occult and painful. The sources of danger and the modes of operating were considered. The cases of dysmenorrhœa from flexion and from stenosis of the os internum and os externum uteri were compared with those of complete atresia of the vagina, the common condition being in all retention of menstrual fluid. Other illustrations were adduced to show that retained fluid or clots in utero caused symptoms similar to those of dysmenorrhœa. The effect of stenosis and atresia in producing retrograde or ascending dilatation of the genital canal was shown, and the mechanism by which retained or injected fluids found their way through the tubes was attributed to the contractile efforts of the uterus excited by the pressure of the retained fluids. One condition submitted was that if the most common essential condition of dysmenorrhœa was retention of menstrual fluid, search must be made for the cause of the retention in order to remove it. This conclusion was as logical as the necessity, always recognised, of giving exit to the menstrual accumulation in cases of complete retention from imperforate hymen. Dysmenorrhœa was incomplete retention. The indication was the same, only less imperative.

Dr. Playfair believed that clinical facts were not in accordance with a theory so seductive from its simplicity as that advocated by the author. He had no wish to throw the least doubt on the mechanical theory as explanatory of a large number of cases, but he believed that cases existed far more frequently than Dr. Barnes allowed where no obstruction could be found. He referred especially to the cases of so-called congestive dysmenorrhœa, and to those usually included under the class of ovarian dysmenorrhœa.

Dr. Snow Beck said that nearly all acquired, as distinct from congenital, alterations of the uterine organs from a state of health were attended with more or less increased pain during menstruation; and some affections of the neighbouring organs gave rise to a similar increase of pain. He had no hesitation in expressing his belief that obstruction to the exit of the menstrual flow formed but a small proportion of the cases attended with increase of pain during menstruation, and that treatment directed essentially to this object would in the large majority of instances be attended with unfavourable results.

Dr. Rogers also believed that dysmenorrhœa was not a disorder depending solely on obstructive causes. Many cases of dysmenorrhœa were cured before the theory of obstruction was first acknowledged. Many of the cases depended on ovarian, rectal, or purely neuralgic disorders. One cause of dysmenorrhœa—fundal endometritis—had been specially described by Dr. Routh.

Dr. Tilt thought the most frequent cases of obstructive dysmenorrhœa were those in which the obstruction was clearly of a spasmodic nature. He had repeatedly met with cases in which dysmenorrhœa was intense, although the cervical canal was perfectly free, and the discharge of a florid colour and without clots. The dysmenorrhœa in such cases sometimes depended on chronic inflammation of the menstruating surface, sometimes on morbid ovulation and subacute ovaritis, whereas in exceptional cases the complaint could only be considered a neuralgia of the menstruating womb.

Mr. Spencer Wells believed a very large proportion of cases of true dysmenorrhœa depended on mechanical impediment to the free escape of the menstrual fluid, and to be curable by removal of the obstruction. Sympathetic pains in the breasts or elsewhere, and nervous symptoms common at the menstrual period, should not be confounded with true dysmenorrhœa. He narrated cases in which severe obstructive dysmenorrhœa had been cured by replacement of the flexed uterus, by dilatation of the cervical canal, and by opening a closed vagina.

Dr. Barnes then replied.

Ovariotomy.—In the *Berliner Klinische Wochenschrift* for February 26 and March 4 Professor E. Martin relates seven cases of ovariotomy performed by him during 1870-71. Four of these were successful. He terminates the paper by some practical remarks derived from a consideration of these cases and his numerous prior operations.

OBITUARY.

THOMAS EDWARD BEATTY, M.D.

It is with no ordinary feelings of regret that we announce the death of one of the worthiest of our brethren in the sister country. Full of years and of honours, Thomas Edward Beatty has passed from amongst us after an illness of but a few days' duration. Indeed, so brief was that illness, that many will hear of it only at the same time with the announcement of its fatal termination. So lately as April 17 last, Dr. Beatty in his wonted health and vigour took the chair at a meeting of the Medical Society of the College of Physicians in Ireland. Two nights afterwards, at the Surgical Society of Ireland, he spoke on the treatment of diffuse cellulitis in the region of the neck. Alas! but one short week later the earliest symptoms of this same affection showed themselves in his own person, extreme asthenia supervened, and on the morning of Friday, May 3, the kindly, genial spirit took its flight from earth. Born almost with the present century, Thomas Beatty at the age of 14 entered Trinity College, Dublin. Four years subsequently he graduated in Arts, having already followed in the footsteps of his father, Dr. John Beatty, in choosing Medicine as a profession. In 1820 he proceeded to the degree of Doctor of Medicine at Edinburgh, and the following year joined the Royal College of Surgeons, Ireland. In 1824 he became a Fellow of the College, and entered upon the active pursuit of his Profession, his tastes leading to the closer study of obstetrics and gynæcology. In due time he was chosen Master of the South-Eastern Lying-in-Hospital, an institution which for many years did good service among the poorer inhabitants of a thickly populated district in Dublin. The chair of Medical Jurisprudence at the College of Surgeons was also conferred upon Dr. Beatty. In 1832 the subject of this notice aided in founding the City of Dublin Hospital, of which he became a trustee, and to which he was attached as Consultant in Midwifery until his death.

Beatty now began to reap the reward of untiring assiduity, thorough uprightness of character, and conscientious discharge of duty. It was his good fortune to enjoy the confidence of a wide circle of patients, and his Professional brethren were not slow to recognise his worth. In 1850 he was honoured by election to the Presidentship of the Royal College of Surgeons in Ireland. A similar dignity was conferred upon him by the Dublin Obstetrical Society, and in 1859 he was chosen to preside over the celebrated Pathological Society of that city. But this was not all. In 1864, the King and Queen's College of Physicians, of which corporation he had become a Fellow two years previously, made Dr. Beatty their President, his eminence as a Physician being thus recognised as his Surgical attainments had been many years before by the College of Surgeons. At this time, too, the University of Dublin granted the degree of Doctor of Medicine *honoris causâ* to their distinguished alumnus. Well might the recipient of all these favours at the hands of his brethren exclaim (in the preface to his well-known work), "The many evidences of the esteem of my brethren in both branches of our Profession, with which I have been honoured, might well satisfy the most soaring ambition, and afford grounds for the deepest thankfulness, which I now desire to express; and again I repeat that my cup of Professional honours is full, even to overflowing."

Of the work to which these words are prefatory we need here say but little—it is too well and widely known and appreciated; suffice it to remind our readers that "Contributions to Medicine and Midwifery" are to all time the witness of the industry, the research, and the varied attainments of their author.

His writings, many of which in a revised form were republished in the work to which we have just referred, appeared at intervals from the year 1830. Among the most remarkable of them was an account of a case of abdominal aneurism which terminated fatally in 1829. Dr. Stokes, in his work on "Diseases of the Heart and Aorta," says of this communication—"Our knowledge of the diagnosis of this affection may safely be said to date from the year 1830, when Dr. Beatty, of this city, published his accurate observations on a single case of the disease."

It remained that a yet more general tribute should be paid; and accordingly, on the occasion of the visit of the British Medical Association to the Irish metropolis in 1867, Dr. Beatty was called upon to preside over the Midwifery Section of the meeting. His modest, brief, and interesting address to the Section is still fresh in the memory of many of our readers.

So far, we have dwelt merely on the Professional character

of him we mourn. Those who have had the good fortune to be brought into personal relations with Thomas Beatty, will understand how hard it is to have lost one whose sterling qualities of heart and hand, whose happy disposition, genial humour, and unfaltering allegiance, surrounded him with a host of friends. Truly we "shall not look upon his like again."

On Tuesday morning last, all that was mortal of Thomas Beatty was laid in the tomb, and the sad occasion was taken advantage of by a vast number of friends to do honour to his memory. The procession included a large body of students; the Fellows and officers of the two Colleges in their robes; the Governor, Presidents, and Court of the Apothecaries' Hall; the members of the Order of Friendly Brothers of St. Patrick; many masonic brethren; members of the Royal Irish Academy; several Fellows of Trinity College; and almost the whole Medical Profession of Dublin and its vicinity.

ALDERMAN LAURENCE SPENCER, M.D. Aber., F.R.C.S. Eng., etc.,

Died at his residence, Winckley-square, Preston, on the 1st inst., in the 61st year of his age. He was a native of Burnley, and, after being educated at the Burnley Grammar School, came to Preston when he was 13 years of age. He was apprenticed to the late Mr. John Gilbertson, father of the present Dr. Gilbertson and Mr. Alderman Gilbertson. In 1834 he proceeded to London, where he became a Licentiate of the Apothecaries' Company and a Member of the Royal College of Surgeons. Subsequently he became a Fellow of the Royal College of Surgeons, a Licentiate of the Royal College of Physicians, Edinburgh, by examination, a "Doctor of Medicine" of King's College, Aberdeen, and a Fellow of the Obstetrical Society. He was twice president of the Lancashire and Cheshire branch of the British Medical Association, and was placed in the commission of the peace for the county of Lancaster. His practice in Preston commenced in 1835, and he was one of the most successful Practitioners in that part of Lancashire. He delighted to undertake difficult cases, and he attained a degree of proficiency rarely equalled and scarcely ever excelled. He was kind and genial with his patients, tender-hearted to a degree, and he seldom left a sick-room without the subject of his visit feeling the most perfect confidence in his skill. In November, 1841, he was elected a Councillor for Fishwick Ward, and was re-elected in 1844. In July, 1857, he was chosen Alderman, and maintained that position up to the time of his death. In 1857, and again in 1870, he was Mayor of the borough, and held the office with becoming dignity. He took a very active interest in the management of the water-works, and had the honour, as Chairman of the Water Committee, of cutting the first sod of the Hodder Valley Extension (now in progress) and the Grimsargh Reservoir in 1857. He has spent a most useful life in the service of the town of his adoption, and his removal from it will create a void which it will be almost impossible to fill. To the sick poor that loss is irreparable. The deceased gentleman was married, in 1834, to the eldest daughter of the late Thomas Barton, Esq., of Malton-le-Dale, the issue being four sons and two daughters, all of whom are living. The eldest son (Mr. W. H. Spencer) is a Surgeon practising in Preston; the second is a solicitor in the town; the third is the first Miller Exhibitioner and a Graduate of the University of Cambridge; and the fourth is completing his studies for the Medical Profession. His wife died in December, 1869.

JAMES HALL PARK, M.D. Edin., L.R.C.S., etc.,

Died a fortnight since at Broughty Ferry, Dundee, and his remains were interred in the cemetery at Barnhill on the 30th ultimo. The funeral was intended to be quite private, but in addition to all the Doctors in the village, and the clergymen of the Free Church, the officers of the 3rd Forfarshire Volunteer Artillery (of which Dr. Park was Surgeon)—who had expressed a wish to be present—along with a few of the Coast Brigade of the Royal Artillery, followed. Dr. Park, after studying at the High School of Edinburgh, entered the University, and passing successfully through all the Medical classes, took his degree of M.D. and L.R.C.S.E. in 1857. In 1855, being in the last year of his Medical studies, in compliance with a request from the Government, backed by the strong recommendation of Dr. Millar (at that time Professor of Surgery), he along with some other Medical students volunteered to serve as Hospital dressers in the war that was then waged with Russia. Accordingly he joined the fleet that proceeded to the Baltic under the command of Admiral Dundas, and was present in the *Pembroke* Hospital-ship, at most of the naval engagements that season, for which services he obtained a medal. After graduating, the following year, he was preparing to enter the navy—for which the Government offered inducements to those youths who had already served their country—when a circumstance occurred which entirely changed his prospects in life. Some severe cases of typhus fever broke out in Broughty Ferry, and the two senior Physicians, Drs. Gordon and Henderson, in the exercise of duty, caught the infection. At the request of the late Dr. Langlands, brother-in-law to Dr. Gordon, Dr. Park generously consented to take Dr. Gordon's practice pending the fever, but both these Physicians succumbed to the disease. At the request of many, Dr. Park consented to commence practice in Broughty Ferry, and was soon thereafter appointed Physician to the Monifieth Parochial Board, and Surgeon to the garrison at Broughty Castle. The effects of a severe cold, caught nearly seven years ago, never left him, and he passed the winter of 1870-71 at Bournemouth. He returned in June last year, with little or no abatement of his disease, and in the autumn went out to Calcutta. He returned in the beginning of March much worse, a new form of disease having set in, and seven weeks after he died. During the latter days of his life, though frequently severely tossed with affliction, he retained his intellectual strength, and was able to prescribe for himself to the last. His kind friends, Dr. Begbie, of Edinburgh, and Dr. Nimmo, of Dundee, and his assistant, Mr. Stewart, saw his case was hopeless, and he met their decision with the calmest fortitude. He has left a widow and five children.

R. M. WATSON, M.R.C.S., L.S.A.,

Of Devonport, was born in 1801, at Woolwich. In 1810 he entered the navy, where he remained seven years; but, as was usual at that time, he lived on shore, receiving the customary education. He then retired from the navy, and began studying Medicine; he entered at St. Bartholomew's, and passed in 1827. He immediately after commenced practice at Devonport, where he practised until his retirement in 1847. His practice was at no time a remunerative one, although at the earlier part of his career his work was very heavy, and the poor always found him ready to help in their hour of need. Whatever he undertook he did thoroughly and conscientiously. He never wrote any book, but he must have been a laborious and diligent student of current literature and scientific subjects even to within a few years of his death, as testified by many manuscript notes found among his papers. About 1847 he began to take an active part in the public affairs of his borough. He was elected Mayor in 1856 and 1857, made a borough magistrate in 1859, and a county magistrate in 1860. He was thoroughly beloved and respected by his fellow-townsmen. He died on April 16, at Stoke, aged 70, and was buried at the cemetery, Mayor and Corporation following, and very many friends sending their carriages.

JOHN HERBERT PATTERSON, M.D. Glasg., M.R.C.S., Deputy Inspector-General of Hospitals and Fleets, died at Bournemouth on the 1st inst. The deceased officer, who had received a medal and the Order of the Medjidie of the fifth class for his services, became an Assistant-Surgeon in the Royal Navy in 1838, Surgeon in 1845, and Deputy-Inspector on the retired list in 1868.

BOWYER VAUX, F.R.C.S.,

Formerly one of the Surgeons of the General Hospital, Birmingham, died on Saturday, May 4, aged 90, at Teignmouth, South Devon, where he had resided for the last seventeen years. Within a few months of the resignation of his father, Jeremiah Vaux, who had filled the office from the establishment of the institution, he was elected one of the Honorary Surgeons of the Hospital, and resigned in 1843, having held the appointment for thirty-five years.

NEW INVENTIONS.

NIGHTINGALE'S INVISIBLE RESPIRATOR.

(*Charles Nightingale*, 17, *Sackville-street, Piccadilly, London, W.*)

"Keep your mouth shut" is the well-known advice which Mr. Cattlin gives with such emphasis and point. Mr. Nightingale gives us an instrument by the aid of which it can be done. This is described as an "invisible respirator and mouth protector, inducing natural respiration, for protecting the teeth, throat, lungs, etc., against cold, damp, fog, or noxious influences." It is a curved metallic shield fitted to the front teeth, and intended to induce the wearer to keep the mouth

shut and to breathe through the nose, and to warm the air before any of it reaches the teeth. It is ingeniously designed, but we must not anticipate the verdict which experience only can give.

GRANULAR EFFERVESCING "IRON AND ARSENIC" SODA AND MAGNESIA WITH BISMUTH; AND BISMUTH WITH IRON AND STRYCHNINE.

(*Young and Postans, Analytical and Pharmaceutical Chemists, 35, Baker-street, London, W.*)

In proportion as Medical Practitioners are giving up the preparation of their own medicines, we find gradually introduced a series of handy ready-combined preparations, which need no further "dispensing," and which the patient can easily administer to himself in the proper dose. The above preparations belong to this class. They are all in the "granular" form, and effervesce readily when mixed with water. They are as little physicky or sickly as possible. The iron and arsenic is a good compound; it dissolves readily, forms a clear pinkish solution, and looks nicer, and tastes quite as nice, as some champagne. The other preparations answer well to their titles. They are all instalments of a great change impending over pharmacy, which we believe will cause nauseousness to be no longer associated with the idea of the "Doctor's shop."

MEDICAL NEWS.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH—DOUBLE QUALIFICATION.—The following gentlemen passed their first Professional examinations during the April and May sittings of the Examiners:—

Bennett, William, Clonakilty.
Davies, James H., Llandilo.
Espaignet, Marc Edouard Tursand, Mauritius.
Keir, William Ingram, Musselburgh.
Leader, Nicholas, Cork.
Marsh, Herbert Elliott, Lancaster.
Page, Frederick M., Corfu.
Pollard, Clement, Taunton.
Stevenson, John, Edinburgh.

And the following gentlemen passed their final examinations and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

Allin, William Briggs, Torrington.
Anderton, William, Lancashire.
Bernard, Gerald, Portsmouth.
Berry, William, Lancashire.
Blyth, Charles, Suffolk.
Chaffey, Elswood, Canada.
Corbett, Michael, county Cork.
Dixon, Joseph, Cumberland.
Gilligan, William Arthur, Bradford.
Hawkes, Alfred Edward, Northamptonshire.
Hunter, Christopher, county Tyrone.
Kenny, Maurice Aloysius, Limerick.
Mackenzie, Alex., Kelso.
Mackenzie, Lawrence Storrar, Liverpool.
Masterton, John, Edinburgh.
Murphy, John Joseph, county Carlow.
Orr, Hugh, county Cavan.
Quarry, Charles, county Cork.
Rowan, Thomas, county Down.
Smith, Charles Edward, Essex.
Smith, George Cockburn, Winchester.
Wood, William John Haram, Boston.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology at a meeting of the Court of Examiners on the 7th inst., and when eligible will be admitted to the pass examination:—

Bacon, Alfred P., student of the Leeds School.
Clare, John, of Guy's Hospital.
Darker, Frederick W., of St. Thomas's Hospital.
French, Peter, of the Dublin School.
Haden, Arthur C., of University College.
Heale, Alfred L., of the Westminster Hospital.
Hughes, P. Walter, of the Liverpool and Edinburgh Schools.
Jones, T. Cattell, of Guy's Hospital.
Lee, Edwin, of the Leeds School.
London, Edwin H., of University College.
Morton, Richard J., of Guy's Hospital.
Newington, A. S. L., of University College.
Parson, Henry, of St. Thomas's Hospital.
Powell, Howell M., of Guy's Hospital.
Price, Robert J., of University College.
Priestley, Clement E., of St. Thomas's Hospital.
Ross, George H., of University College.
Scott, Jeremiah, of the London Hospital.
Smith, William, of the Manchester School.
Smith, William, of the Sheffield and Glasgow Schools.
Tamplin, Charles H., of St. George's Hospital.
Worthington, Walter M., of the Birmingham School.

The following gentlemen passed on the 8th inst., viz.:—

Barrow, John, student of St. Bartholomew's Hospital.
Collins, Charles E., of University College.
Crouch, Edward T., of Guy's Hospital.
Deardon, John A., of the Manchester School.
Draper, Matthew R., of the London Hospital.
Dixon, Thomas A., of St. Bartholomew's Hospital.
Eastall, Henry F., of Guy's Hospital.
Fowler, Breame W., of St. George's Hospital.
Haines, Edmund, of St. Bartholomew's Hospital.
Hind, Henry J., of Guy's Hospital.
Howell, Bruce K., of St. Bartholomew's Hospital.
Hutchings, Edward J., of Guy's Hospital.
Hutchinson, Joseph, of the Manchester School.
l'Anson, Welby, of St. Bartholomew's Hospital.
Landon, Arthur J., of St. Bartholomew's Hospital.
Nadin, Joseph, of St. Bartholomew's Hospital.
Powell, Richard, of St. Bartholomew's Hospital.
Richards, George P., of the Dublin School.
Roe, Leyland F., of the Manchester School.
Smith, Arnold A., of the Sheffield School.
Steavenson, William E., of St. Bartholomew's Hospital.
Sykes, William, of the Sheffield School.
Treharne, John L., of Guy's Hospital.

The following gentlemen passed on the 9th inst, viz.:—

Byrne, John J., student of the Manchester School.
Deeley, Ambrose W., of the Manchester School.
Emmerson, William L., of the Westminster Hospital.
Farfan, Joseph V., of St. George's Hospital.
Garrett, Charles F., of the London Hospital.
Hoffmeister, John B., of St. Bartholomew's Hospital.
Hughes, Lewis J., of the Dublin School.
Kershaw, Alfred, of the Manchester School.
Moore, George E., of King's College.
Smith, John P., of St. Mary's Hospital.
Smith, Rev. William, M.A. Trin. Coll. Dub., of the Liverpool School.
Tatham, G. George, of the Manchester School.
Wallis, Kenneth S., of the Manchester School.

Forty candidates out of the ninety-eight examined having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Anatomical and Physiological studies for three months.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their first Professional examinations during the March and April sittings of the Examiners:—

Greene, John Joseph, Dublin.
O'Callaghan, John, county Kerry.
Whittington, Thomas Price, South Wales.

And the following gentlemen passed their final examinations and were admitted Licentiates of the College:—

Adams, George Norris, Southampton.
Aubrey, Richard, Somerset.
Bailey, James Buttersby, county Cavan.
Cluxton, Frederic Charles, Ontario.
Cunninghame, William Love, Beith.
Fleming, John, county Derry.
Fraser, John, Ontario, Canada.
Harris, Alfred Charles Edward, Cawnpore.
Lucas, John Cutchick, Calcutta.
Murdoch, Robert, Ayrshire.
Norris, Henry Lee, jun., United States.
Stewart, Henry Ward, Woolwich.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, May 2:—

Delamotte, Peter William, Swanage, Dorset.
Jenkinson, Harold, Ramskill, Yorkshire.
Stickland, Samuel, Hawkhurst, Kent.

As Assistants in Compounding and Dispensing Medicines:—

Garratt, Arthur, Market-street, Guildford.
Richards, James Griffiths, Crumlin, Monmouth.

The following gentleman also on the same day passed his Primary Professional Examination:—

Davies, John Hopkyn, Middlesex Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BROWNE, WILLIAM HENRY, L.R.C.P. Edin., L.R.C.S. Edin., Medical Officer to the Aldborough District, Skirlaugh Union, Yorkshire.

CHAMBERS, E., M.R.C.S. England—House-Physician to St. Bartholomew's Hospital.

HOPKINS, FREDERICK FRAZER, M.R.C.S. Eng.—Resident Surgeon to Birmingham General Dispensary, *vice* Mr. J. H. Kenny, resigned.

MACKENZIE, DUNCAN JOHN, M.B., C.M.—Assistant House-Surgeon to the Leith Hospital.

ALLAN, RICHARD, L.F.P.S.G., L.R.C.P.E.—Medical Officer to the Dalmellington Union, Ayrshire.

ANDERSON, WILLIAM, R.N., L.R.C.S.—Medical Officer to Kilmaurs Union, Ayrshire.

THOM, GEORGE S., M.R.C.S., L.S.A.—Resident Medical Officer to the Royal Albert Hospital, Devonport, *vice* M. M. Moore, Esq., L.R.C.P., M.R.C.S., resigned.

WALKER, GEORGE CHARLES, M.D.—Physician to the Bootle Borough Hospital.

WHITE, FREDERICK, M.R.C.S., Surgeon to the Eye and Ear Infirmary, Liverpool.

NAVAL AND MILITARY APPOINTMENTS.

MEDICAL.—Dr. Fleetwood Buckle, Assistant-Surgeon to the *Dart*; John M. Hunter, Surgeon, additional, to the *Duke of Wellington*; Charles J. Fennel, Surgeon to the *Duke of Wellington*; and Charles P. D. Chitterden, Assistant-Surgeon to the *Hercules*.

MEDICAL DEPARTMENT.—Staff Surgeon-Major William Godfrey Watt, to be Deputy Inspector-General of Hospitals; Staff Surgeon Thomas George Fitzgerald, having completed twenty years' full-pay service, to be Staff Surgeon-Major, under Article 342 of the Royal Warrant of December 27, 1870; Assistant-Surgeon Henry Carden Herbert, M.D., from 49th

Foot, to be Staff Surgeon, *vice* Staff Surgeon-Major John Rambaut, M.D., who has retired upon half-pay; Staff Assistant-Surgeon Williams Leaven White, M.B., resigns his commission.

Brevet.—Apothecary William Wilson, Bengal Medical Establishment, to have the honorary and local rank of Assistant-Surgeon.

BIRTHS.

Duncan.—On May 2, at 139, Buckingham Palace-road, the wife of H. M. Duncan, M.D., M.B., M.R.C.S., of a son.

Gray.—On May 1, at 45, St. Giles's, Oxford, the wife of Edward B. Gray, M.D., of a son.

Hunter.—On May 1, at 18, Abercromby-place, Edinburgh, the wife of James A. Hunter, M.D., of a daughter.

Inglis.—On May 7, at Devon House, South Penge-park, S.E., the wife of Walter W. Inglis, M.D., of a son.

Inkson.—On April 5, at Nynee Tal, the wife of James Inkson, M.D., Staff Assistant-Surgeon, of a son.

Marshall.—On May 7, at Holly House, Mortlake, the wife of W. Marshall, M.D., of a son.

Mumford.—On April 29, the wife of William Lugar Mumford, M.D., of a daughter.

Prentis.—On April 6, at Goruckpore, India, the wife of Surgeon Charles Prentis, B.M.S., of a daughter.

Rogers.—On April 11, at No. 4, Marine-lines, Bombay, the wife of A. M. Rogers, Presidency Surgeon, of a son.

MARRIAGES.

Moore—Shirley.—On April 30, at Moreton-in-Marsh, Gloucestershire, John New, second son of George Moore, L.R.C.S., L.S.A., to Annie, younger daughter of the late John Shirley, Esq., of Moreton-in-Marsh.

Roe—Verdon.—On April 27, at the parish church, Eccles, near Manchester, Edwin Hodgson Roe, M.R.C.S., The Poplars, Patricroft, to Annie, only daughter of the late Rev. William Verdon, B.A., incumbent of St. John's, Pendlebury, and sister of Richard Verdon, M.A., Fellow of St. John's College, Cambridge.

Smith—Shaw.—On April 30, at St. George, Tombland, Norwich, W. Arnold Smith, M.D., Surgeon 2nd Madras Light Cavalry, to Charlotte Sutton, eldest daughter of Commander Charles Shaw, Royal Navy.

Wades—Baxter.—On May 7, at St. Paul's, Knightsbridge, John Wades, M.D., Hanley, Staffordshire, to Sarah, daughter of the late Charles Fletcher Baxter, Esq., of Oxford.

DEATHS.

Barfoot, Clarissa, the beloved and deeply regretted wife of Edward Barfoot, M.R.C.S. Eng., L.S.A., at Freshwater Villa, Surbiton, Surrey, on May 4.

Brown, James Lundin, M.D., suddenly, at Malvern, on May 2, aged 44.

Cooke, T. Weeden, M.R.C.S. Eng., L.S.A., at his residence, Upper Berkeley-street, Portman-square, on May 7, aged 56.

Dunn, Charles, M.R.C.S. Eng., L.S.A., late of Fareham, Hants, at Ramsgate, on May 4, aged 40.

Hodson, Mary Beatrice (Daisy), eldest child of Thomas Hodson, M.R.C.S. Eng., L.S.A., Ingatestone, Essex, on April 28, aged 6 years.

Patterson, J. H., M.D., Deputy Inspector-General of Hospitals and Fleets, at Bournemouth, on May 1.

Spencer, Laurence Catlow, M.D., J.P., at his residence, Winckley-square, Preston, Lancashire, on May 1, in the 62nd year of his age.

Vaux, Bowyer, F.R.C.S. Eng., formerly one of the Surgeons to the Birmingham General Hospital at Teignmouth, on May 4, aged 90.

Watson, Clara Lindsay, only daughter of Staff Surgeon Watson, at Manchester, on April 25, aged 22 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Ashton-under-Lyne District Infirmary.—House-Surgeon. Candidates must possess both a Medical and Surgical diploma. Applications and testimonials to be addressed to "The President of the District Infirmary," and forwarded to H. T. Darnton, Esq., Honorary Secretary, Ashton-under-Lyne, on or before May 11.

Bradford Infirmary.—Senior House-Surgeon. Diplomas and testimonials to be sent to Mr. C. Woodcock, at the Infirmary, on or before May 22.

Central London Sick Asylum District.—Assistant Medical Officer for Highgate Infirmary. Candidates must possess a double qualification, according to the Regulations of the Local Government Board. Applications on a printed form, which will be provided, with not more than four recent testimonials, to be forwarded to the Committee, at the Asylum, not later than twelve o'clock on Thursday, May 16.

Derby County Lunatic Asylum, Mickleover.—Assistant Medical Officer. Candidates must possess both a Medical and Surgical diploma. Applications and testimonials to be sent to John Barber at the Asylum.

Great Northern Hospital.—Ophthalmic Surgeon. Candidates must be F.R.C.S. Applications and testimonials to be sent to G. Reid, Secretary, 46, Great Coram-street, W.C., on or before May 16.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

Kidderminster Infirmary.—House-Surgeon and Secretary. Applications and testimonials to be sent to the Chairman of the Managing Committee, on or before May 16.

Middlesex County Lunatic Asylum, Hanwell.—Medical Superintendent of the Male Department. Candidates must be Fellows, Members, or Licentiates of one of the Royal Colleges of England, Scotland, or Ireland, and duly registered in Medicine and Surgery. Copies (only) of testimonials, accompanied by a form (which will be forwarded on application), must be sent to Richard William Partridge, Clerk to the Visitors, on or before Saturday, May 4.

North Riding Infirmary, Middlesbrough-on-Tees.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

Sheffield General Infirmary.—Assistant House-Surgeon. Candidates must be Members of one of the Royal Colleges of Surgeons of the United Kingdom, or L.F.P.S.G. and L.S.A., or L.R.C.P.L. Applications and testimonials to be addressed to "The Medical Staff of the Infirmary," care of the Secretary, on or before May 16.

University College Hospital.—Resident Medical Officer. Applications and testimonials to be sent to John Robson, B.A., Secretary to the Council, on or before May 18.

Westhampnett Union, Sussex.—Medical Officer. Candidates must be duly qualified. Applications and testimonials to be sent to R. G. Raper, Clerk to the Guardians, at the Office, West-street, Chichester, on or before May 17.

Westminster Union.—Medical Officer. Candidates must possess both a Medical and Surgical degree. Applications and testimonials to be sent to the Union Office, Poland-street, Oxford-street, on or before May 15.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATION.

Altrincham Union.—The Workhouse Medical Officership is vacant; salary £50 per annum.

APPOINTMENTS.

Atherstone Union.—John A. Lycett, M.R.C.S. Eng., L.S.A., L.R.C.P. Lond., to the Polesworth District.

Barrow-upon-Soar Union.—Wm. Paulson, L.R.C.P. Lond., to the Rothley District and the Workhouse.

Glanford Brigg Union.—Wm. Richardson, L.R.C.P. Edin., L.R.C.S. Edin., to the Messingham District.

Newport Pagnel Union.—George N. Swinson, M.R.C.S. Eng., L.R.C.P. Edin., to the Eleventh District.

Rotherham Union.—Wm. J. Smith, L.S.A., to the Rawmarsh District. Clement S. Blythman, M.B., C.M., M.R.C.S. Eng., to the Swinton District.

St. Thomas Union.—Wm. John Land, M.R.C.S. Eng., L.S.A., to the Littleham District.

Tendring Union.—Saml. N. Squire, M.R.C.S. Eng., L.S.A., to the Elmstead District.

Torrington Union.—Lewis R. H. Rouse, M.R.C.S. Eng., to the Shebbear District.

York Union.—James F. Henderson, M.D. & C.M. Univ. Aber., to the Fourth District.

Mr. George W. Jotham, jun., has been appointed Honorary Surgeon of the Kidderminster Infirmary.

Dr. Strange has been appointed Honorary Physician to the Worcester County Gaol, in the room of the late Dr. Williams.

The new Infirmary at Kensington will be opened early next month.

A new dispensary is to be erected in the Liverpool-road, Islington, on the site of the old workhouse.

The Vaccination Officers of Newtown, not considering a shilling for each successful vaccination sufficient, memorialised the Board of Guardians for one-fourth of the fines for the neglect of parents, etc., which the Guardians acceded to.

The Committee of Management of the West London Hospital, at a meeting held on the 6th inst., resolved that one of the new wards be named the "W. L. H. Ward," in recognition of two donations of £1000 each, one received in 1871 and the other in 1872.

We regret to record that Dr. J. L. Brown, of Malvern Wells, while walking on Thursday week on the line of railway at Great Malvern, was overtaken and knocked down by a luggage train, the wheels of the trucks literally cutting his body in two. The guard of the train saw Dr. Brown on the line, but had not time to stop the train. At an inquest held on Saturday on the body, it appeared that the deceased was at the time greatly depressed in consequence of the death of his wife and child, and he fell between the trucks after throwing away a pipe he had been smoking. Dr. Brown was in his 44th year.

Royal College of Surgeons.—The lectures for the present year will be resumed on Monday, the 3rd proximo, by Professor Holmes, F.R.C.S., who will deliver six lectures on the "Surgical Treatment of Aneurism in its various forms," to be followed by Dr. G. M. Humphry, F.R.S., who will commence his course of lectures on "Human Myology" on the 17th proximo. These lectures will be delivered on Mondays, Wednesdays, and Fridays, at four o'clock.

Fees of Old and Young Practitioners.—The Medical Association of Liége and Belgium has lately established a minimum tariff of fees to be adopted by all its members. This, of course, has often been done elsewhere, but not frequently with much success. One point, however, which the Association insists upon (and which other similar bodies would do well to note) is the extreme injustice of senior members of the Profession who have made their way and are

in easy circumstances continuing to charge the same fees as those who are just entering it.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, on Monday, May 6, 1872, Sir Henry Holland, Bart., M.D., D.C.L., F.R.S., President, in the chair, the following Vice-Presidents were nominated for the ensuing year:—The Marquis of Salisbury, the Earl of Rosse, General Sir Edward Sabine. William Spottiswoode, Esq. the Treasurer. John Erie Erichsen, Esq., Charles Howard Esq., John Saunders, Esq., George Noble Taylor, Esq., were elected Members of the Royal Institution. John Tyndall, Esq., LL.D., F.R.S., was re-elected Professor of Natural Philosophy.

MEATH HOSPITAL, DUBLIN.—DISTRIBUTION OF PRIZES.—On Thursday, May 2, Dr. Stokes, Regius Professor of Physic in the University of Dublin, Senior Physician of the Hospital, and Mr. Porter, Surgeon to the Queen in Ireland, Senior Surgeon of the Hospital, distributed the Medical and Surgical prizes awarded at the examinations held at the termination of the winter session. The prize of ten guineas presented by Dr. Hudson, President of the King and Queen's College of Physicians, for six Medical cases—three of acute and three of chronic diseases—observed in the Hospital, and to be accompanied by commentaries, was divided between Mr. Charles Alexander McMunn and Mr. Henry Mallins. At the *viva voce* Medical examination Mr. H. Mallins obtained the first, Mr. Archibald Adams and Mr. Charles Alexander McMunn the second prizes. The first Senior Surgical prize was awarded to Mr. Marens Given, the second to Mr. Archibald Adams. The first Junior Surgical prize was obtained by Mr. Cuthbert Fitzsimon, the second by Mr. John Middleton. Dr. Stokes complimented the Medical prizemen in eloquent and graceful terms upon the extent and variety of the information and practical knowledge they had proved themselves to be possessed of, and congratulated them upon the extent to which they had cultivated the physical sciences accessory to Medicine. Mr. Porter spoke in the highest terms of the distinguished answering of the Surgical class, and expressed the marked approbation with which he and his colleagues had witnessed the diligence and attention of the Surgical pupils throughout the past session.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN APRIL, 1872.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	18·41	0·117	0·149	0·004	14·6	3·8
West Middlesex	19·20	0·075	0·135	0·001	15·1	4·1
Southwark & Vauxhall	18·83	0·155	0·141	0·003	14·8	3·9
Chelsea	17·87	0·188	0·139	0·004	14·3	3·6
Lambeth	17·93	0·151	0·138	0·005	14·4	3·6
Other Companies.						
Kent	26·63	0·011	0·165	0·000	20·0	5·8
New River	18·63	0·079	0·148	0·001	15·0	3·8
East London	19·13	0·056	0·146	0·002	15·3	4·0

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in those of the Grand Junction, Southwark and Vauxhall, the Lambeth, and the Chelsea Companies.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 102,857,846 gallons; and the number of houses supplied was 493,978. This is at the rate of 31·5 gallons per head of the population daily. The last official return from Paris stated that the average daily supply per head of the population was 26·8 gallons; but this includes the water used for the public fountains, and for the ornamental waters in the Bois de Vincennes and the Bois de Boulogne.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. A. P. Stewart.—We think the controversy may cease. Dr. Stewart has had the opportunity of showing wherein he thinks we committed a public wrong, and withdraws a word to which we objected; so the matter may rest.

J. R.—We should be sorry to advise you to speculate. We have no faith ourselves. As for hearing the *truth* about schemes of the sort, whom are we to get it from?

Long Forceps.—There will be a meeting of the Midwifery Board on Wednesday, the 22nd instant, for the examination of candidates for the Licence in Midwifery of the College of Surgeons. See our advertising columns.

M.D., Blenheim.—Miss Hill, who supplanted Sarah, Duchess of Marlborough, was married to Mr. Masham privately, in the apartments of Dr. Arbuthnot, one of the Physicians of the Household.—*Stanhope's "Queen Anne."*

Post-mortem Examination of William III.—In his "History of England," Earl Stanhope states that the demeanour of William was certainly in no common degree dry, forbidding, and austere; that he never appeared quite at ease or quite to his advantage except on a day of battle. There, and there alone, the hero was fully manifested. For this coldness and reserve there might be, perhaps, in some degree a physical cause assigned, as, when his body came to be dissected in the presence of ten Physicians and four Surgeons (the most eminent of their day), they state at the conclusion of their joint report—"It is very rare to find a body with so little blood as was seen in this." The report is given at length in the "Complete History of Europe for 1702," p. 76.

The following is circulated by John P. Coldstream, W.S., 5, St. Andrew's-square, Edinburgh, to whom communications may be addressed:—

"Appeal on behalf of Mrs. Henrietta Mary Bell, daughter of the late William Turton, Esq., solicitor, Stoke-on-Trent, and widow of the late James Bell, Surgeon, formerly of Amoy, China, and latterly Physician and Justice of the Peace in Port Albert, New Zealand.

"Mrs. Bell has been left a widow with eight children, the eldest of whom is 11 years old, and their only means of support is £16 per annum, derived from property in New Zealand left by her late husband. Mr. Bell was educated in Edinburgh, and during his College career associated much with the students of the Edinburgh Medical Missionary Society, was favourably known to many of its Directors, and was instrumental in promoting the interests of the dispensary connected with that Society. In 1857, after having taken his diploma, he was requested by Dr. Hirschberg, Medical missionary at Amoy, to assist him in his work in that city; and he laboured there with much usefulness till the failing health of his wife compelled him to abandon his work in China and return to this country. After being engaged in practice for some time in Devonshire, he emigrated to New Zealand with his family, and was useful in promoting the welfare of the emigrants in Port Albert, where he settled in practice. He continued to reside there till his death, which occurred in August, 1870, after two days' illness, and by the discharge of his duties as a Medical man, a magistrate, and coroner, he won the entire respect and affection of all those with whom he came in contact. The *New Zealand Herald*, in noticing his death, stated that as a Medical man his services were always rendered wherever required, and in many cases without fee or reward; that as a settler his loss would be severely felt, as he had always taken a leading part in all public business from the commencement of the settlement, and was generally selected to occupy the chair at public meetings; that in him every one of the settlers had lost a friend; and that it would be impossible to name another person whose loss would be so generally felt. After Mr. Bell's death, Mrs. Bell continued to reside a short time in the colony; but in consequence of depreciation in the value of land and stock, she was obliged to abandon her intention of remaining there for the support of her family; and after realising her husband's estate, it was found that there would not be a larger sum at present than £16 a year for her own and her family's maintenance. On her return to this country, Mrs. Bell was kindly received by her husband's relatives, who care for her and her children according to their ability. A sister of Mr. Bell has taken one child; but this and the promise of the father of Mr. Bell, who is 82 years of age, to give a home to Mrs. Bell during his life, is all that can be done by them. Applications are about to be made to two of the public Hospitals of Edinburgh for the admission of other three of the children. From the youthful age of her remaining children, who require much attention from their mother, Mrs. Bell finds it impossible to procure a sphere in which she could earn a proper livelihood for her family. In these circumstances Mrs. Bell most reluctantly made known her position to a few of her late husband's friends in Edinburgh, who, after consultation, with the knowledge and approval of herself and her friends, now submit her case to the public, in the belief that they do not appeal in vain on her and her fatherless children's behalf. It is hoped that at least £1000 may be raised to be invested for behoof of Mrs. Bell during her life, and thereafter divided among the children."

THE BAKER BROWN TRUST FUND.

This fund is raised on behalf of Mr. Isaac Baker Brown, who is paralysed, and in great pecuniary distress.

Additional Subscriptions.

	£	s.	d.		£	s.	d.
Amount previously advertised	324	2	0	Mr. J. T. Mitchell, Clapham-road	1	1	0
A Friend	10	0	0	Mr. George Spencer, Bayswater	1	1	0
Mr. F. A. Bulley, Reading	2	2	0	Mr. C. P. Mann, Boxford	1	1	0
Dr. Burdon-Sanderson ...	2	2	0	An Old Patient, Belvedere, Kent	2	2	0
Dr. Mott	1	1	0				
Dr. Cameron, Derby ...	1	1	0				
Mr. F. Symonds, Oxford...	1	1	0				

The treasurers and trustees are Dr. Forbes Winslow, 23, Cavendish-square, and Dr. Charles Cogswell, 47, York-terrace, Regent's-park, to whom subscriptions may be sent.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the obituary notice of Dr. Masfen in the *Medical Times and Gazette* of last week it is stated that in 1853 Dr. Masfen obtained the Scholarship in Medicine on his graduating M.B. at the University of London. Dr. Masfen obtained the University Scholarship in Surgery, but the Scholarship in Medicine was gained by

Yours, &c.,

Gloucester, May 4. BUCHANAN WASHBOURN.

Old Times.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—"I stood by a pretty young maid, whom I did attempt to take by the hand, but she would not; and I did perceive that she had pins in her pocket with which to prick me if I should touch her again, and was glad that I spied her design." Thus writes that old rascal, Pepys, who dropped into St. Dunstan's Church to hear an edifying discourse one Sunday evening. Taking up another ancient book, the following story appears very good:—A certain regiment was drawn up for General's inspection—never mind when, never mind where—every man as rigid as the gensdarmes in *Geneviève de Brabant*, everyone present with an exception. The colonel fumes, the adjutant raves; where is the Surgeon? where's Doctor James? the service is going to the devil! At the last moment, slowly and solemnly, up drives a one-horse shay, from which emerges a gentleman, military as to trousers, but otherwise clad as a general Practitioner. With the rapidity of lightning, resembling Shaw, the Life Guardsman, in the circus, flinging aside the coat and hat, he assumes the scarlet tunic, the black belt, the cocked hat, and buckles on a trusty Toledo. The plot thickens as a regimental saddle appears; the venerable steed taken out of the shafts, and instaneously converted into a war-horse, inclined to sniff the battle afar off. The Assistant-Surgeon, very much against the grain, was directed to hold the charger's head, to give his superior officer a leg up, at the first blast of the trumpets to keep an eye on Rosinante, and should there be any firing, to cling to the bridle "like grim Death." All passed off well; no one turned turtle; the programme was reversed; the old nag, stripped of his trappings, sorrowfully reverted to former degradation, doubtless on the way home moralising on the vanity of greatness, as well as the mutability of human affairs.

Queer people our ancestors!

Your obedient servant, D. I. G.

COMMUNICATIONS have been received from—

Mr. H. Sterry; Mr. R. Freeman; Dr. Washbourn; Dr. Beigel; Dr. F. Winslow; Dr. Pirie; Mr. Smallpiece; Dr. O. C. Powell; Dr. Samuelson; Mr. James Campbell; Mr. F. A. Bulley; Mr. Richard Quain; Dr. F. Junker; Mr. H. C. Lawrence; J. R.; Mr. J. Millican; Fifty-five No. 2; Mr. E. Chambers; Mr. De Lacy Towle; Professor Spencer; Mr. G. S. Thom; Mr. J. Rosson; Dr. J. Whitmore; Dr. G. C. Walker; Dr. Inglis; Mr. Alexander; Mr. Vaux; Dr. Edwards-Crisp; Dr. F. R. Hogg; Dr. R. C. R. Jordan; Dr. Hardie; Mr. F. A. Maromeo; Mr. Holmes Coote; Mr. J. Chatto; Mr. T. M. Stone.

BOOKS RECEIVED—

The Tendency of Disease to cause Disease, by W. H. Spencer, M.A., M.B.—Botany for Beginners, by Dr. M. T. Masters, F.R.S.—The Institutes of Medicine, by Martyn Payne, A.M., M.D., LL.D.—The Physiology of the Soul and Instinct, as distinguished from Materialism, by Martyn Paine, A.M., M.D., LL.D.—Air and Rain, by Dr. R. Angus Smith—Annual Report of the Southport Convalescent Hospital and Sea-bathing Infirmary for 1871—The Physical Education and Development of Children in Theory and Practice, by W. H. St. Ruth—Manual of Human and Comparative Physiology, Edited by S. Stricker, Translated by H. Power, M.B., F.R.C.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

The Dark Blue—Practitioner—Edinburgh Medical Journal—The Western Lancet—Dundee Advertiser—Philadelphia Medical Times—The Clinic—Gynæcological Society's Journal—Liverpool Mercury—The Medical Investigator.

APPOINTMENTS FOR THE WEEK.

May 11. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Mr. R. A. Proctor, "On the Star Depths."

13. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

14. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Royal Institution, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

Royal Medical and Chirurgical Society, 8½ p.m. Mr. Jeremiah McCarthy, "On some Renal Calculi of unusual shape in the Left Kidney of a Woman who died of Cancer of the Uterus;" "On a Case of Intestinal Obstruction, Artificial Anus made in Small Intestine, etc." Mr. R. Hamilton, "On the Synovial Membranes in Pyæmia." Dr. Wm. Murray, "On some further Attempts to Cure large Internal Aneurisms."

15. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Society of Arts, 8 p.m. Meeting.

16. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Harveian Society, 8 p.m. Clinical Meeting. Presentation of a Testimonial to Mr. J. B. Curgenven, late Hon. Secretary.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Light."

17. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 9 p.m. Professor Abel, F.R.S., "On the more important Substitutes for Gunpowder."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 4, 1872.

BIRTHS.

Births of Boys, 1219; Girls, 1121; Total, 2340.
Average of 10 corresponding weeks, 1862-71, 2116 6.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	725	662	1387
Average of the ten years 1862-71	694·6	672·6	1367·2
Average corrected to increased population	...	...	1504
Deaths of people aged 80 and upwards	...	...	40

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	7	12	4	2	6	1	1	1	2
North ...	751688	19	21	3	1	20	1	2	1	3
Central ...	333887	2	9	...	2	10	...	1	...	...
East	638928	17	11	2	..	29	3	4	1	1
South... ...	966132	17	11	2	1	16	...	2	2	3
Total	3251804	62	64	11	6	81	5	10	5	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·954 in.
Mean temperature	52·6°
Highest point of thermometer	70·3°
Lowest point of thermometer	37·3°
Mean dew-point temperature	43·6°
General direction of wind	Variable.
Whole amount of rain in the week	0·14 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 4, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending May 4.	Deaths Registered during the week ending May 4.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·1	2340	1387	70·3	37·3	52·6	11·44	0·14	0·36
Portsmouth ...	115455	12·1	68	77	71·2	37·2	51·0	10·56	0·27	0·69
Norwich	81105	10·9	56	31	74·0	37·0	52·5	11·39	0·02	0·05
Bristol	186428	39·8	104	77	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	47	32	70·4	38·9	50·7	10·39	0·12	0·30
Birmingham ...	350164	44·7	262	145	...	...	...	...	...	...
Leicester	99143	31·0	63	61	71·7	36·5	51·2	10·67	0·34	0·86
Nottingham ...	88225	44·2	71	36	73·4	36·8	52·4	11·33	0·44	1·12
Liverpool	499897	97·9	435	242	68·0	41·8	51·4	10·78	0·17	0·43
Manchester ...	352759	78·6	257	176	...	...	...	...	...	...
Salford	127923	24·7	99	61	71·5	38·4	50·2	10·11	0·27	0·69
Oldham	84004	20·2	52	41	...	...	...	...	...	...
Bradford	151720	23·0	87	83	69·0	45·0	53·8	12·11	0·68	1·73
Leeds	266561	12·2	216	119	70·0	39·0	52·1	11·17	0·35	1·40
Sheffield	247847	10·9	229	113	70·0	37·7	51·8	11·00	0·20	0·51
Hull	124976	35·1	92	61	71·0	37·0	50·7	10·39	0·17	0·43
Sunderland ...	100665	30·4	89	38	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	91	66	65·0	43·0	50·7	10·39	0·00	0·00
Edinburgh	205146	46·3	165	148	63·0	38·0	50·5	10·28	0·20	0·51
Glasgow	489136	94·8	431	238	58·4	40·2	49·9	9·94	0·33	0·84
Dublin	310565	31·9	187	220	66·1	39·0	53·2	11·78	1·83	4·65
Total of 21 Towns in United Kingd'm	7393052	34·0	5411	3488	74·0	36·5	51·5	10·83	0·36	0·91

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·95 in. The highest was 30·27 in. on Tuesday morning, and the lowest 29·35 in. at the end of the week.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers, enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2456 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

LECTURE V.

THE animals commonly known as Lemurs, from the island of Madagascar, and certain nearly related species from the African continent and the southern parts of Asia, constitute a well-defined group of mammals, which were formerly associated with the monkeys in the order Quadrumana. As a more complete knowledge of their organisation has been gradually attained, the interval which separates them structurally from the monkeys has become continually more evident; and since they cannot be placed within the limits of any other of the previously constituted orders, it has been considered advisable by some naturalists to increase the number of ordinal divisions for their behalf, and to allow them to take rank as a distinct group, related to the Primates on the one hand, and to the Carnivora and Insectivora on the other.(a) The whole group, whether we regard it as a sub-order or an order, is naturally subdivided into three sections or families—(1) the *Lemuridæ;* (2) the *Tarsidæ;* and (3) the *Chiromyidæ*. The first family contains the large bulk of the animals belonging to the group, each of the others being constituted for the reception of a single species.

The several genera constituting the *Lemuridæ* may be grouped into four sub-families—(1) the *Indrisinæ;* (2) the *Lemurinæ;* (3) the *Nycticebinæ;* and (4) *Galaginæ*. I will first describe the digestive organs of one of the last-mentioned group—the grand galago (*G. crassicaudata*)—having lately had an opportunity of dissecting a recent specimen, and because it is (in many respects) a good representative of the whole order. I must premise that the lemurs resemble the smaller monkeys in their food, being usually omnivorous, though some (as the present example) feed chiefly on insects or small vertebrates, while others make fruit and other vegetable substances their principal aliment. We shall find some corresponding modifications in their digestive organs.

The animal I have just mentioned was an adult male, and twelve inches in length from the nose to the root of the tail. The muzzle is moderately elongated, but less fox-like than in the true lemurs. The hard palate has six very strongly marked ridges, extending from side to side, with indented margins. Those near the front, which are the most prominent, form single wide arches; near the back the arches become double by an indent in the middle, most marked in the last but one, the extremities of which are opposite the posterior molars. The inferior surface of the velum palati is thickened in the middle line so as to form a rudimentary uvula. The tongue is long, narrow, pointed, and extensile. There are three large circumvallate papillæ, having the usual disposition, situated far back, the anterior pair being opposite, or slightly behind, the attachment of the palato-glossal folds. Round-headed fungiform papillæ are scattered irregularly all over the dorsum, among the smaller conical papillæ, which are thick at the base, and have a finely denticulated apex directed backwards. On the under surface of the tongue, projecting forwards from the frænum, which is placed rather far back, is a peculiar organ called the "sublingua." It is tongue-shaped, flat, rather more than half the breadth of the tongue itself, consisting of stiff fibrous tissue covered with mucous membrane, with a median ridge above and below passing into the frænum. Its edges turn up and its apex slightly down, to adapt it to the form of the under surface of the tongue, against which it lies. At its free anterior extremity it terminates in a series of fine but stiff-pointed denticles, placed side by side, giving it the appearance of a comb. In the natural position this organ lies upon the floor of the mouth, with its pectinated apex applied to the base of the upper or internal surface of the six narrow, elongated, recumbent, anterior lower teeth so characteristic of the lemuroid animals; and as I particularly noticed in this specimen, when the mouth was first opened, and before the sublingua was disturbed, the sharp anterior prolongations lay in, and exactly fitted, the grooves between these teeth. One was median (rather smaller than the next), and lay between the central incisors; the next was between the first and second incisors; then between the second incisor and the canine was a large bifid one; and two or three small ones at the edge rested on the outer side of the canine. When the tongue was gently drawn forwards the sublingua came with it, each point retaining its position in relation to the teeth, and seeming most perfectly adapted to sweep over and keep clean the upper surface. There can be little doubt (if any function can ever be inferred from structure) that this must be their purpose. The breadth of this organ is three-tenths of an inch, its length from its inferior frænum six-tenths; superiorly it is free to the extent of four-tenths of an inch.

The sublingua of the galago must not be confounded with the salivary papilla situated on the frænum below the tongue in apes, as I believe has commonly been the case, for the latter structure is also quite distinct, well developed, and situated below the sublingua. It is soft, fleshy, triangular, flattened at the extremity, and bifid; the ducts of the submaxillary glands open upon it, close to the middle line and a short distance behind the apex. These glands are rather large and firm in substance, eight-tenths of an inch in length and five-tenths of an inch in greatest thickness, of a sub-crescentic shape, their concavity being adapted to the form of the rounded angle of the jaw, on which they rest. The duct leaves the middle of the anterior or hollow side of the gland and runs forward, having the usual relation to surrounding structures to terminate as above mentioned. In the anterior half of its course the well-developed, elongated, and flattened sublingual gland lies to its outer side. The parotid gland is rather small and thin, composed of loose lobules, situated below the auditory meatus, and passing a little way up in front and behind it; it comes in contact with the submaxillary below. Its greatest extent from before backwards is eight-tenths of an inch. The duct has a straight course across the masseter, and ends in a small slit-like orifice in the cheek opposite the anterior part of the first upper true molar. At the angle of the mouth, between the anterior edge of the masseter and the mucous membrane, is a distinct gland about the size of a hemp-seed; but I was unable to find a zygomatic gland in the situation indicated in *Tarsius* by Burmeister.

On opening the abdomen, the omentum was seen hanging from the lower border of the stomach, about half-way down to the pubis, and almost entirely confined to the left side, containing reticulated layers of fat. The superficial part of the right half of the cavity was occupied by coils of large intestine, presently to be described. The cæcum lay in the right iliac fossa, with the apex downwards and in the pelvis. The small intestines appear chiefly on the left side. The stomach is simple, oval, with a very large projecting fundus, the œsophagus being placed much to the right, and very near the pylorus. The pyloric portion is short, and can hardly be said to be distinct from the rest of the cavity. The duodenum is loosely attached by its mesentery, and has the usual course. The small intestines have much the same calibre throughout, and, after making many coils, end by ascending to join the colon in the middle of the right side of the abdomen. The mesenteric arteries form anastomosing loops. The cæcum is two inches long, thicker at the base than any other part of the intestines, but gradually narrowing to a rounded apex. It has a slight and simple curve in one plane towards its attached or mesocæcal border; a longitudinal muscular band passes along the middle of the opposite border, by which it is slightly puckered up into transverse sacculations.

The colon is quite simple, without longitudinal bands or sacculations, of about the same diameter as the small intestine. It is long, and takes a very peculiar course—first ascending to the under surface of the liver, then running forwards and downwards nearly half-way across the abdominal cavity, turning sharply upwards on itself again to the upper right corner of the cavity, then descending below the bend of the last coil, ascending again to the under surface of the stomach, and passing backwards and then downwards to form the simple descending colon, which ends in the rectum without sigmoid flexure. It is easy to show by their peritoneal attachments that the ascending and descending colons have the usual course,

(a) See Gratiolet, "Plis Cérébraux," 1853; J. Victor Carus, "Handbuch der Zoologie," 1868; Alph. Milne-Edwards, "Observations sur quelques points de l'Embryologie des Lémuriens, et sur les Affinités Zoologiques de ces Animaux" (*Annales des Sciences Naturelles*, October, 1871).

and that it is the transverse portion which is greatly elongated and developed into a loop coiled upon itself. (See Fig. 18.)

Fig. 18.

Fig. 18.—Diagram of the position of the abdominal alimentary canal in *Galago crassicaudata*. The greater part of the small intestine has been omitted; *d* duodenum, *i* ileum, *cm* cæcum, *r* rectum.

The liver occupied rather more of the right than the left side. Its left lateral lobe overlaid but did not quite conceal the stomach. The umbilical fissure is of moderate depth, dividing the central portion of the liver into two lobes of very unequal size, the right being more than twice the size of the left. There is no cystic notch on the edge of the right central lobe, but a fissure in the middle of its upper surface corresponds to the fundus of the gall-bladder. The lateral fissures are very deep, and the two lateral lobes of semilunar form, the left being the largest. The caudate lobe is triangular and of moderate size, its apex just reaching to the free border of the right lateral. The Spigelian lobe is divided into two conspicuous tongue-shaped processes, which overlay the portal fissure. The vena cava is bridged over by hepatic substance as it runs between the Spigelian and right central lobes. The gall-bladder is small and buried in the right central lobe. Its fundus is not placed near the free edge of the lobe as in most mammals, but is turned upwards into the substance of the liver, and appears at the bottom of a cleft in the middle of the upper or diaphragmatic surface of the lobe.(b)

The sub-family *Lemurinæ* consists of the genus Lemur and a few nearly related forms, all inhabitants of Madagascar. In these(c) the muzzle is more elongated and narrow than in the galago; the gape is wide. The fibrous sublingua is much less developed,(d) being of a narrow lancet-shape, with a strongly marked longitudinal median ridge on its lower surface, and a less marked ridge close to it on each side; the anterior terminations of these ridges form the trifid apex of the body. It is free from the tongue for a quarter of an inch, and its point reaches to four-tenths of an inch from the tip of that organ. Below it lies the flattened and laterally expanded leaf-like salivary papilla, bifid in front, and with notched edges. The salivary glands resemble those of galago, but are proportionately rather less developed.

Fig. 19.

Fig. 19.—Diagram of the arrangement of the abdominal alimentary canal in *Lemur flavifrons*, the greater part of the small intestine being omitted: *d* duodenum, *i* ileum, *cm* cæcum, *r* rectum.

The stomach is rather more elongated than that of galago; the duodenum takes a wider sweep, and descends further down the abdomen before it crosses behind the colon. The cæcum is considerably longer, and curled in a sub-spiral manner; and the colon is folded in a somewhat different manner, as will be best under-stood by a reference to the diagram (Fig. 19). The small intestines in *Lemur flavifrons* measured forty-four inches, the large (without cæcum) twenty-five inches, and the cæcum seven inches; the animal from tip of nose to root of tail being fourteen inches. In a specimen of the ring-tailed lemur (*L. catta*), the convolutions of the colon presented a similar arrangement.

In the liver (Fig. 20) the umbilical fissure extends nearly

Fig. 20.

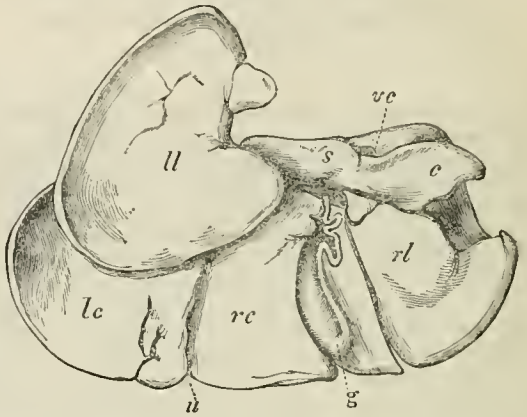

Fig. 20.—Under surface of the liver of *Lemur flavifrons*: *ll* left lateral lobe, *lc* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *s* Spigelian lobe, *c* caudate lobe, *vc* vena cava, *g* points to the neck of the gall-bladder.

half-way from the free to the attached border, and there is a well-marked cystic notch. The left lateral fissure completely cuts off the left lateral lobe from the rest of the organ, leaving a connexion only by the vessels and capsule; while the right lateral fissure on the upper surface is scarcely deeper than the umbilical fissure. The Spigelian lobe (*s*) has no tongue-shaped projection, and the caudate (*c*) though distinct and pointed, is very small compared with the right lateral, the hollow for the reception of the right kidney being chiefly excavated in the latter.

In *L. mongoz*, Hunter observes, "the gall-bladder lies in a sulcus of the liver, contrary to the common manner, for the fundus lies forward or towards the diaphragm, and is in view upon the convex side of the liver; from thence it passes down between the flaps of the liver, and is seen through its whole length; and when got as low as the lower edge of the liver, it turns up upon the posterior or concave side in a contorted manner, becoming smaller and degenerating into the cystic duct, which joins the hepatic duct at the vena portæ. There is a small hepatic duct that enters the cystic duct before the large hepatic duct enters. The common duct enters the

Fig. 21.

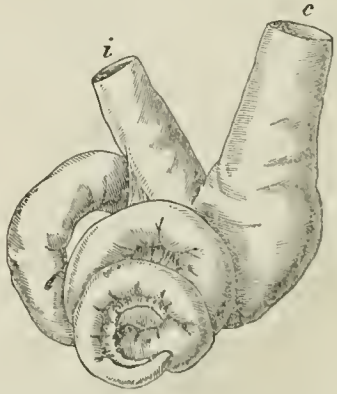

Fig. 21.—Cæcum of the Ruffed Lemur (*L. varius*): *i* ileum, *c* cæcum.

duodenum about three inches from the pylorus." This very peculiar position of the gall-bladder, which was partially indicated in galago, is characteristic of all the species of the genus *Lemur* which have been examined, as well as *Microcebus*.

(b) For visceral anatomy of animals of this genus see Andrew Smith, "Zoology of South Africa" (*G. mohali*); Peters, "Reise nach Mozambique" (*G. crassicaudata*); Hœckena Kingma (*G. peli*).

(c) These observations apply especially to *Lemur flavifrons*.

(d) Hunter, in his account of the dissection of *Lemur mongoz*, notices that "the tongue has a part underneath, in shape like that of a bird's tongue."—"Essays and Observations," vol. ii., p. 29.

Among the true lemurs, the principal known deviation in the digestive organs from the type above described occurs in the largest species, the Ruffed Lemur (*L. varius*), in which the cæcum is greatly developed, attaining a length of thirteen inches, and is coiled in a regular, spiral manner (see Fig. 21).(e)

The visceral anatomy of no member of the sub-family *Indrisinæ* having hitherto been described, the following information is derived from an imperfect specimen of *I. brevicaudatus*, in rather bad condition in the Museum stores. The structure of the alimentary digestive organs would indicate an animal of more vegetable-eating habits than the other members of the family.

The length of the animal is about twenty-two inches. The tongue is long, narrow, and with an obtuse point at the apex, being less truncated than in lemur. It is two inches and a half long, and seven-tenths of an inch broad at the widest part. The dorsal surface is covered with a very close-set soft velvety pile of small papillæ, apparently all of one kind. There are two small circumvallate papillæ, three-tenths of an inch apart, just in front of the attachment of the palato-glossal folds. Behind them the surface is almost smooth, and hence very different from that of lemur. The sublingua is narrow, especially towards the apex, which is one-fifth of an inch from the tip of the tongue, and free for a very small space (not one-twentieth of an inch). It has a well-marked median ridge below, with a groove on each side. Its apex has a median point, and a smaller one on each side, as in lemur. The whole of the free surface of this organ is covered with fine, stiff, filiform papillæ. The tonsils are a very prominent, horizontal, oval mass, two-tenths of an inch long, projecting very freely; their surface covered with conspicuous round and oval orifices. In front of each are two or three much smaller similar follicular masses, projecting freely from the mucous membrane of the fauces—supplementary tonsils, in fact. The submaxillary glands are oval or subtriangular in form, not large for the size of the animal, seven-tenths of an inch in principal diameter. The parotid glands are not preserved with the specimen.

The stomach is very short and globular, with a small fundus, and a large and distinct pyloric cavity folded back on the lesser curvature, so that the œsophageal and pyloric orifices are nearly approximated. The pyloric orifice was surrounded by a very strongly developed muscular ring. The position of the intestines had been so much disturbed before my examination that I cannot describe it accurately; but the important fact to be noticed is their extraordinary length, and especially that of the cæcum, which recalls that of the grass-eating rodents. The small intestine was about 130 feet in length, or six times the length of the animal; the colon eighty inches, and folded backwards and forwards many times, but not sacculated; and the cæcum forty-four inches and of great capacity, being considerably wider than any other part of the intestinal canal, and slightly sacculated at its commencement, though gradually narrowing to a blunt apex. The stomach was empty, but the intestines contained a brown pultaceous mass, in which all the particles which had any definite form were of vegetable structure; no traces of insects were found.(f)

It is curious that the branches of the mesenteric artery distributed both to the large and small intestines run as in the pig, in perfectly straight lines, without forming arches or loops as in the true lemur.

The liver differs chiefly from that of lemur in having the caudate lobe either aborted or coalesced with the right lateral—a very rare condition. The Spigelian lobe has a well-developed triangular projection. The gall-bladder has its neck at the free edge of the liver, and its fundus turned backwards into the substance of the right central lobe, appearing in a cleft on its upper surface; but it is not so sharply bent, and does not reach so near to the posterior edge of the liver, as in the lemur. The duct is not contorted; it enters the duodenum one inch and a quarter from the pylorus.

The *Nycticebinæ* are a group of small, slow-moving, arboreal, short-tailed, nocturnal, insectivorous or carnivorous lemur-like animals, represented by two principal forms from the south-east of Asia, and two from the West Coast of Africa.

The Asiatic species were divided into two genera, *Nycticebus* and *Loris*, by Geoffroy St. Hilaire, but were united by Illiger under the generic name of *Stenops*; hence there is considerable confusion in the nomenclature of the animals of this group.

The common slow-lemur (*Nycticebus javanicus*) has been the subject of several anatomical monographs, in one of which, by the two eminent Dutch anatomists, Schroeder van der Kolk and W. Vrolik, it is stated that, "Les sous-maxillaires sont très-grandes, et montrant une singulière disposition dans leur conduits excréteurs, qui se réunissent de chaque côté en un tube commun, et se dirigent en arrière, pour s'insérer dans la membrane muqueuse de la bouche, un peu au-dessus de l'os hyoïde. C'est une disposition tout-à-fait anormale des conduits salivaires qui nous paraît pleine d'intérêt." As this is accompanied by a figure of the parts described, comes on such very high authority, and has been frequently repeated in subsequent works, I was of course desirous to verify its correctness, and have consequently dissected two specimens of *Nycticebus* belonging to each of the two best known species, *javanicus* and *tardigradus*; but in both the ducts of the submaxillary glands have precisely the usual arrangement, running forward under cover of the ramus of the mandible, passing first beneath the digastric, and then the mylohyoid muscle, being crossed by the gustatory nerve, and opening on the salivary papilla beneath the sublingua. A preparation demonstrating the relations of the salivary glands and ducts of one of these animals has been placed in the Museum.

The sublingua is largely developed and pectinated at the extremity, much as in galago. The disposition of the alimentary canal also much resembles that of galago, the transverse colon forming a very long loop, which descends in front of the coil of the small intestines nearly to the pubis, and is folded back on itself in the same manner; but the coils are more parallel and closely adherent to each other. The cæcum is longer than in galago, capacious and slightly sacculated at the commencement, but is so contracted in its terminal third that it has been described as a vermiform appendage. In an animal the length of which was nine inches, the small intestine measured twenty inches, the colon and rectum twelve, and the cæcum three. The liver much resembles that of galago, but the gall-bladder is larger; its neck is in the normal situation, but its fundus appears in a notch on the upper surface of the right central lobe.

The slender lemur (*Loris gracilis*), from Ceylon, though resembling the last in many particulars of its structure, differs notably from it in the arrangement of the alimentary canal, the colon simply ascending on the right side, crossing to the left, and descending to the rectum, without any of that remarkable elongation and folding of the transverse colon found so generally in the animals of this group. The cæcum is rather shorter than in *Nycticebus*, narrowest at the base, and widening towards the blunt rounded apex; the stomach is very globular; the fissures of the liver are deeply cut, and the lobes very pointed; the gall-bladder nearly globular, and normal in position.

The digestive organs of the two African species—*Perodicticus potto* and *P. calabarensis*—closely resemble those of *Nycticebus*, though the cæcum of the latter is proportionally shorter.(g)

Tarsius is a very strange little animal, remarkable for the singular structure of its hind feet and the enormous size of its eyes. It inhabits some of the islands of the Indo-Malayan Archipelago, and is said to feed chiefly upon lizards. Burmeister has given an excellent account of its anatomy,(h) the principal points in which I have been enabled to verify upon specimens in the Museum. In common with all the other members of the group it has a sublingua beneath the tongue, but in a much more rudimentery condition than in the others, consisting of a median ridge and two lateral smaller ridges, but attached to the tongue almost to the very tip. The bifid salivary papilla is situated below this, and much further back. In the abdominal viscera this animal differs from the true lemurs in the comparative shortness of the colon; for, while the small intestine measures ten inches, the colon (without cæcum) is

(e) For the visceral anatomy of *Lemur* see Daubenton (Buffon, vol. xiii.), (*L. catta, mongoz,* and *varius*); Hunter, "Essays and Observations," vol. ii.; Martin, *Proceedings of the Zoological Society*, 1831, p. 58 (*L. varius*). For *Microcebus*, Martin, *Proceedings of the Zoological Society*, 1835, p. 125 (*M. murinus*); Peters, "Reise nach Mozambique" (*M. myoxinus*).

(f) Since the above was written M. Alphonse Milne-Edwards has been so good as to send me a lecture on the lemurs, published in *La Revue Scientifique* for September, 1871, in which the simple form of the stomach and the enormous size of the cæcum of the *Indrisiæ* are mentioned. The large intestine is said to be of great length, and coiled upon itself so as to form two regular and superposed spirals, recalling its condition in certain herbivores, as the sheep.

(g) For visceral anatomy of the *Nycticebinæ* see "Recherches d'Anatomie Comparée sur le Genre *Stenops*, d'Illiger," by J. L. C. Schroeder van der Kolk and W. Vrolik, in Bijdragen tot de Dierkunde, part i., Amsterdam. 1848-54. Daubenton (Buffon, vol. xiii.), (*Loris gracilis*). Hunter, "Essays and Observations," vol. ii. (The animals are not correctly identified in the published edition; the first and the third described are *Loris gracilis*, the second is *Nycticebus tardigradus*.) Van der Hoeven and Van Campen, Ontleedkundig onderzoek van den Potto van Bosman (Korg. Akad. van Wetenschappen, Amsterdam, 1859), *Perodicticus potto*. Huxley (*Proceedings of the Zoological Society*, 1864, p. 314), *Perodicticus* (*Arctocebus*) *calabarensis*.

(h) Burmeister, "Beiträge zur nähreren Kenntniss der Gat *Tarsius*." Berlin. 1846.

but two, and is very simple in its arrangement, commencing on the right side, just below the hypochondriac region, and passing across to the left, and then descending in a straight course to the rectum. The cæcum is one inch long, gradually tapering to the apex, and folded in a spiral manner. The liver is remarkable for the great size of the left lateral lobe, which is larger than all the rest of the organ put together, semicircular in form, very thin, and envelopes the anterior and upper surface of the stomach; there is no umbilical fissure. The gall-bladder is broadly pyriform; its fundus turned towards the free edge of the liver, and lodged in a wide cystic notch. The Spigelian lobe is large and multifid; the caudate narrow and pointed.

There is one other very aberrant form still belonging to this group—the aye-aye, or *Chiromys*, of Madagascar—the teeth of which are modified so as to resemble those of the Rodents, in which order it was placed until its structure and affinities were thoroughly understood. Its anatomy has been fully described in two recently published memoirs,(i) and the Museum contains preparations of the viscera of an animal which died in the Zoological Gardens in 1867. It is interesting to find in this aberrant member of the group, that though the lower teeth have quite a different arrangement from those of the typical members, the sublingua is still present, though greatly modified. As the teeth are but two, and of large size, with a median groove between them, this organ is broad and lancet-shaped, with a single median hard ridge or keel, terminating in a point in front, very little of which is free, and without any lateral denticulation. The stomach is sub-globular; the colon conforms with the general character of the order in forming a long loop near its commencement; the cæcum is small and contracted towards its termination; the gall-bladder is quite normal in its position and arrangement of its ducts; the caudate lobe of the liver coalesces with the right lateral, as in Indris; the left lateral lobe is large, and of the crescentic or semicircular form so common in the order.

An interesting discussion has taken place as to the habits and food of this singular animal, upon which, however, the structure of the digestive organs throws little light.

CLINICAL LECTURES ON INTESTINAL OBSTRUCTION.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

Lecture IV.

ON LUMBAR COLOTOMY FOR THE RELIEF AND CURE OF RECTAL OBSTRUCTION AND DISEASE.(a)

Gentlemen,—I have selected the operation of lumbar colotomy—that of opening the colon in the right or left loin—as the subject of to-day's lecture, not only because I know it to be well worthy of your attention, but because I believe it has not yet found its true place in Surgery. It is admitted among the justifiable operations in exceptional cases, to be performed when all other means have failed to ward off death and give relief, but under no other circumstances; as an operation for any curative purpose it is hardly recognised. When successful also it has generally been believed that the condition of the patient is so miserable—that the escape of fæces and wind from the artificial wound causes so much distress and discomfort—that life at such a price is hardly worth having; that at the best it may prolong life, but with a local discomfort that is almost unendurable. Yet I think I shall be able to show you that the operation deserves far higher claims upon our attention than these; that it not only is a most valuable means of prolonging life and relieving pain; that when successful the artificial anus is not such a source of local discomfort as you might believe; and that, as a curative agent, it bids fair to be of great and undeniable value. I propose, therefore, to consider the operation in two points of view—first, as an operation of expedience to prolong life and relieve pain; and, secondly, as a curative agent. As an operation of expedience, it may be called for under any circumstances in which some chronic obstruction in the large intestine exists: whether the obstruction be due to the presence of some tumour pressing upon the bowel—that is, to some outside influence—or to some stricture contracting the calibre of the bowel from some inside influence. As a curative agent, it may be performed for severe examples of ulceration of the rectum, which in a pathological sense are curable, but if left alone will go on to cause stricture; or for complications of ulceration of the intestines, in which the ulceration has perforated the bladder, and produced a recto-vesical fistula. I propose to consider it, first, as an operation of expedience—where there is obstruction of the large intestine, and other means have failed to give the necessary relief; and more particularly with reference to tumours. Now, I must ask you to recall to your minds some of the cases I have related in my former lectures, of intestinal obstruction produced by tumours so occluding the rectum or colon as to produce complete mechanical obstruction. The first case I will recall is one you will remember in which a cancerous tumour was present, hanging from the promontory of the sacrum into the pelvis, and so completely occluding the rectum—the case of Mrs. M., aged 46, that I saw in consultation with Mr. Phillips, of Leinster-square. She had suffered from chronic obstruction to the bowel for months, and had been under the care of my colleague Dr. Owen Rees and Dr. West. For one month before I saw her she had been the subject of constipation, and for ten days vomiting and tympanitis existed. Lumbar colotomy was performed with relief, but she died on the third day, on the patient suddenly lifting herself in bed to have the draw-sheet changed.

At the post-mortem examination we found that this cancerous mass hanging over the promontory of the sacrum had on that sudden movement burst, and discharged itself into the peritoneal cavity, producing the collapse and death of the patient. In that case the operation, although unquestionably it would not have saved her life, would have prolonged it and rendered the remainder of it much more comfortable. I do not know that I could have given you a better example of the class of cases which we are now discussing. In the second case we got a better result. It was caused by a growth inside the bowel. A young lady, only 18 years of age, had insuperable constipation for seven weeks, during the whole of which time nothing whatever passed per rectum. Enemata had been given her, both by the nurse and by a skilled Surgeon; but they returned always as they had been sent up—not a trace, not a smell of fæcal matter came down, and no wind. Owing to the obstruction she vomited, but this never went on to stercoraceous vomiting. She had been in the hands of several Medical men; a Physician-accoucheur had seen her, and could find nothing uterine. I examined her and could find nothing whatever beyond the constipation. I examined the rectum most thoroughly, and could find nothing. And this young lady, only 18, had mechanical obstruction clearly of some kind, completely shutting up the bowel. From the distension of the bowel it looked as if it were the large intestine. I thought I could trace the upper part of the large intestine very much distended. I say "thought" because there is oftentimes great fallacy here; you are very liable to come to a wrong conclusion upon that point. It is very difficult to tell whether the bowel you see distended is large or small intestine. The constipation having been of some weeks' standing, and all remedies having failed to give relief, I felt that life could only be prolonged or saved by an operation. This I did by opening the colon in the right loin. A quantity of fæces came away. The operation was performed in September of last year; now she is up and about. All the fæces pass through the artificial anus. She takes her food as well as any of us. But lately, during the last month or six weeks, she has complained of a bearing-down pain about the pelvis. I have had the opportunity of making two examinations of this patient since, and on both occasions I found clearly a tumour coming down into the pelvis—so clearly that, on passing the finger into the rectum, one could easily imagine the finger was in the vagina, and felt a polypus coming down from the uterus. I only hope this may force its way down lower, and that it is a fibrous polypus. Pathologically we know such things do exist. Should it come down and be within the means of Surgical treatment, we may remove it, and save the life of the patient. This, then, is a case of a tumour in the intestine itself producing mechanical obstruction, and necessitating such an operation as I have performed. In another case a hydatid tumour completely blocked up the pelvis, and produced obstruction of the rectum and also of the urethra. In that case I was consulted for the retention of urine. I relieved it by means of an incision, letting out a quantity of hydatids; but the man died from the constipation: the intestine burst, sloughed from over-distension. These are three good examples of obstruction

(i) Owen, "On the Aye-Aye," *Trans. Zool. Soc.*, vol. v. (1862), p. 33. Peters, "Uber die säugethier-gattung *Chiromys*," Abhand. Königl. Akad. der Wissenschaft, zu Berlin, 1865.

(a) Reported by Mr. Henry Clarke (student).

from tumours occluding the large intestine, in which colotomy saved or might have saved life. Never hesitate, therefore, when you get such cases of intestinal obstruction as I have related, to perform such an operation. Do not wait until the patient is moribund before you perform it; colotomise, with the hope of such success as the history of these cases would seem to warrant.

We will now proceed to consider colotomy for the relief of some organic disease of the rectum, and, using a general term, say for stricture of the rectum—recognising the fact that we may get stricture from cancerous disease (either carcinoma or epithelioma), from syphilitic disease of the rectum, or from simple ulceration, in the same way as you may get in other parts syphilitic, cancerous, or simple ulceration. In a large number of cases there is no doubt this structure of the rectum is caused by cancerous disease. In many it is the result of syphilis; in a few of simple ulceration. You will find no better example of the (syphilitic?) form than in the patient in Astley Cooper ward now under care. This is the history of the case as given by the reporter, Mr. Lubbock:—

(I need hardly tell you in passing that any attempt to dilate a stricture by a bougie when ulceration has taken place is utterly futile; it is a direct irritation to the patient, it excites the breaking-up of the material, and therefore rather hastens the end than retards it.)

Stricture of Rectum—Vaginal and Ischio-Rectal Fæcal Fistulæ.
(Reported by Mr. Montague Lubbock.)

Eliza O., aged 29, admitted into St. George's Hospital on February 28, 1872, under Mr. Bryant, from Stoke, Suffolk. Patient has led a healthy life until her third confinement, four years ago, which was protracted, and the child was delivered by means of instruments after having been dead for three weeks. She laid up for fourteen days, and upon getting up found a discharge coming from the vagina, and was obliged to wear a cloth, as the fæces continually passed from the bowel into the vagina. Two years and a half ago she went to St. Bartholomew's Hospital, where an instrument was passed up the bowel, but which did not stop the passage of the fæces from the bowel into the vagina. Patient has been married nine years, and has been confined six times, always going the full time, and three of the children being born alive and three dead.

1st child born about	7	years ago,	alive,	died after	5 weeks.
2nd „ „	6	„	„	dead.	
3rd „ „	5	„	„	dead.	
4th „ „	4	„	„	dead.	
5th „ „	2	„	„	alive,	died after 3 months.
6th „ „	1	„	„	alive,	has had snuffles, but

no eruption on the skin. Patient says that her husband is a labourer enjoying good health, and never to her knowledge having suffered from sore throat, eruption on the skin, or other syphilitic symptom.

On Admission.—March 1. Patient is a well-nourished person, having the appearance of being in good health, but complaining of the passage of fæcal matter by the vagina. Superficially examined by Mr. Rendle: About the anus are several elevations, some having openings which discharge a thin purulent matter; soft parts around thickened. The parts being tender, no further examination was made.

4th. Mr. Bryant, upon examining the patient, found the skin near the anus riddled with fistulous openings, three existing on the right side of the anus, and four on the left, and by which passed a thin purulent matter. There were numerous outgrowths about the anus; and these symptoms led Mr. Bryant to suspect the existence of a stricture of the rectum. Upon introducing the finger per anum a stricture was felt about one inch above the anus, and the obstruction was so complete that no passage could be felt by the finger. Mr. Bryant was of opinion that the nature of this stricture was decidedly syphilitic.

Now, there is a case that is worth looking at. If you examine the patient locally, the first point which declares itself is a fæcal discharge from the vagina; there evidently is some communication between the rectum and vagina. On examining the anus, four or five anal fistulous openings are visible, communicating with the bowel, through which fæculent fluid oozes; some fleshy anal outgrowths are likewise present. Whenever you look at a patient and see such a condition as that, you may safely say there is a stricture above it. You would not get all these symptoms except from the presence of some obstruction higher up in the rectum. These fistulæ, anal and vaginal, are merely the means nature is adopting to get rid of the fæces somehow or other. On passing the finger into the anus we found the rectum perfectly occluded; no orifice could be made out to get the tip of the finger into. Within an inch of the anus it came to a cul-de-sac and would go no further, though no doubt with a probe we might have found some little aperture of communication with the upper bowel still left. So this poor creature had gone on for years with this condition of matters. It had been recognised for two years and a half, but the stricture must have existed before that—no doubt for many months, if not for years—although it was made manifest in her first pregnancy, the pressure of the child's head having broken down the tissue and produced the recto-vesical fistula. In this case I have very little doubt as to the stricture being syphilitic; the history of the case fairly indicates it. Six infants born at the full time—four dead, the other two only born alive; and in the last child you see we get another symptom, the snuffles, which you know is a common consequence of hereditary syphilis; and although by itself it is not sufficient to establish the syphilitic nature of the disease, with the other points in the case it renders it very probable.

Having given you a fairly typical case of stricture of the rectum, although of a syphilitic form, I propose now to make a few brief remarks upon the subject of stricture as a whole.

In the majority of cases this is caused by cancerous disease; in many it is the result of an inflammatory process, simple or syphilitic, from the cicatrisation of deep-seated and extensive ulceration; in others it is due to the contraction of inflammatory material poured out external to the bowel in the submucous tissue. In exceptional instances it may be caused by contraction of the parts external to the bowel, after pelvic cellulitis; and Curling quotes a case where it was the direct result of an injury.

In all these conditions the calibre of the intestine is gradually or rapidly encroached upon, till at last complete obstruction takes place. The stricture may appear after death as an annular contraction of the bowel, with adventitious material in the submucous tissue, and hypertrophy of the muscular coat, looking very like a scirrhous pylorus; or as a thickened, ulcerated, irregular mass of cancerous material, infiltrating all the tissues of the bowel, although rarely extending beyond two or three inches in length. The bowel above the stricture as time goes on will become dilated, and at a late stage it may rupture, ulceration of the colon being a very common consequence of its over-distension. Below the stricture there will often be found pedunculated fleshy or cancerous growths. It has been already pointed out that fistulæ—vaginal, cutaneous, or vesical—often coexist with stricture; abscesses and hæmorrhoids are also occasionally met with.

Stricture of the bowel, taken as a whole, is twice as common in women as in men—my note-book revealing the fact that of forty-eight consecutive cases thirty-two were in this sex. Syphilitic stricture seems to be the more common in women; cancerous stricture in men. Curling, out of sixty-seven cases of reputed cancer, gives forty-four as found in the male sex.

The approach of this disease is very insidious, whatever may be its origin or nature. *Constipation* is the one general early symptom, and it is not till some ulceration has commenced, either at the seat of stricture or above it, that others appear—such as *diarrhœa* with lumpy stools containing mucus, pus, or blood; straining at stool, and a sensation of burning in the part afterwards; with at last a complete stoppage of the bowel—abdominal distension and dyspeptic symptoms being constant accompaniments. An examination with the finger carefully introduced into the rectum will, as a rule, at once reveal the true nature of the case; for about two inches up the bowel the narrowing will usually be felt with or without new tissue infiltrating the part of ulceration. In exceptional cases the stricture is beyond the reach of the finger; but under these circumstances it may at times be brought within its reach by pressing with the free hand upon the abdomen above the pelvis. When the stricture is an annular one it is probably cicatricial or fibrous—possibly cancerous.

When epithelial or positively cancerous, the seat of stricture will be infiltrated with a nodular irregular mass of new tissue, probably breaking down and ulcerating. Sometimes this mass can be felt externally at the brim of the pelvis over the left iliac fossa. I have felt this clearly on three occasions.

When syphilitic, the ulceration will probably extend upwards from the anus, and anal integumental outgrowths will frequently exist.

In ordinary cases of cancerous stricture there is an inch or more of healthy rectum between the anus and the stricture. In exceptional and very extensive disease the anus will be involved.

In advanced cases the anus will appear patulous, and on separating the buttocks a red brickdust-coloured fæculent discharge may run out; wind will also pass without effort.

To flat tape-like or figured fæces, as given by authors as characteristic of this disease, I, with Curling, do not ascribe much importance—for such a condition of motion is very usual even in a state of health when the bowels are irritable, and many other conditions of the pelvic parts may give rise to the same thing; but when a patient never passes a well-formed motion, large or small, the case looks suspicious. On the other hand, when a large well-formed stool is occasionally seen, the probabilities of a stricture existing are very slight.

The examination of a rectum the subject of ulcerative disease with a tube, flexible or otherwise, requires the greatest care, for perforation of the bowel is very prone to occur.

In those cases of stricture of the bowel, therefore, where ulceration exists, and the hope of doing good by dilatation has passed—when relief can only be given by sedatives, and life cannot long be sustained—the operation of colotomy is of great value. It gives comfort to a degree that sometimes astonishes, and always gratifies. On convalescence or recovery it is not found to be practically associated with such inconveniences as Surgeons of old have theoretically surrounded it. It prolongs life, and adds materially to its comfort; and little more than this can be said of most operations. But it must not be postponed till the powers of life have become so exhausted as to render the chances of recovery from the operation poor, or till the large intestine has become so distended as to have become damaged or inflamed. It should be undertaken as soon as it is clear that the local disease has passed beyond the power of local treatment with any prospects of good, and the general powers of the patient are beginning to fail—as soon as the local distress finds no relief from palliative measures, and a downward course with unmixed anguish is evidently approaching. The difficulties of colotomy are not great, nor are its dangers numerous. When unsuccessful it has been usually made so from the delay in its performance—from the want of power in the patient, or secondary effects of the disease in the abdominal viscera. When *most* successful it gives immediate relief to most of the symptoms, and makes life worth having; when *least* so, by lessening pain it renders what remains of life endurable. I have performed this operation for stricture of different kinds on ten occasions, and have never regretted it.

(*To be continued.*)

THE ALLIANCE BETWEEN PYÆMIA AND TUBERCULOSIS.

In our article on the discussion on Pyæmia at the Pathological Society of last week we took occasion to remark that we had pointed out the alliance between pyæmia and tuberculosis some years ago. The same facts have since been brought before the Profession by other writers, and by none more clearly than by Dr. C. J. B. Williams in his recent work on "Pulmonary Consumption," from which we extract the following passages:—

"It is impossible to avoid seeing the close analogy which the process of tuberculisation bears to suppuration. When Mr. Simon's experiments on the production of tubercle in the rabbit were discussed at the Pathological Society in the spring of 1867, my opinion was asked whether the experiments did not prove the specific nature of tubercle. My reply was in the negative, and that I believed that it would be found that tuberculisation bore more analogy to suppuration, and that acute tuberculosis had its parallel in pyæmia."—Dr. Williams on "Pulmonary Consumption," 1871, p. 87.

"Take the parallel case of pyæmia, or hospital fever. Wounds and suppurating sores of all kinds have little tendency to infect the system, so long as cleanliness and free ventilation carry off decomposing matters, and supply abundance of pure air for the active performance of the purifying processes of respiration and sanguification; but in close habitations, with an atmosphere tainted with foul effluvia, every sore becomes both an inlet and a source of poison, which is spread by proliferating and septic pus-cells throughout the body. This is a rapid and more acute form of cachæmia. That inducing tuberculosis is more chronic, probably arising from a less potent septic power in connexion with humidity of air; and operating on a less active bioplasm, it palsies and coagulates the lymphatic sarcophytes, which, aggregating in little nodules, form spots of degenerating and decaying matter in scattered points of the adenoid tissue of the lungs and other organs."—*Ibid.*, page 102.

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON

SOME FORMS OF ENLARGEMENT OF THE PROSTATE GLAND

IN CONNEXION WITH DISEASES OF THE URINARY ORGANS.

By RICHARD QUAIN, F.R.S.,
Emeritus Professor of Clinical Surgery in University College.

The most instructive study of disease is obviously that which is strictly practical—carried on by personal observation, or, as it is termed, "clinical"—as by teacher and pupil observing the same cases: the one in order to teach, the other to learn. Recorded facts, the written representatives of observation, have, nevertheless, intrinsic value to those who have not been clinically connected with them, provided such persons have been prepared by knowledge gained in personal observation of facts in some degree analogous. Plainly, it is by means of such records only that the results of observation can travel beyond the sphere of the observers.

Some important parts of practice are seldom sufficiently illustrated in clinical teaching; for instance, maladies of long duration. They are little seen in the Hospital, and, when seen there, they do not remain long enough for the observation of more than a few incidents in their history. Moreover, such cases—examples of chronic disease—are not infrequently best observed among persons who are never inmates of a Hospital—whose position in life is above that of the class from which Hospital patients are derived. And it is so because such persons often remain more or less under observation, or accessible to observation, during the whole progress of the disease; whereas Hospital patients pass away after the cessation of the emergency which required a sojourn in Hospital.

I am about to illustrate some phases of a chronic malady with the narrative of cases of the kind last indicated—namely, cases which were not in a Hospital, and which, owing to their position in life, were under my observation for lengthened periods of time.

Case 1.—*This case illustrates some peculiarities in the evacuation of urine and in the passage of a catheter, which resulted from an unusual condition of the prostate gland, with a corresponding change in the urethra and the urinary bladder.*

Mr. M. first suffered retention of urine in consequence of overstaying the desire to evacuate in a journey by railway. He was at that time 58 years of age. It was ten years later that I first saw him. He applied to me to be relieved of an attack of retention. He was suffering extreme distress. From that period and up to his death, thirteen years afterwards, this gentleman visited me frequently for the same purpose. He sometimes applied to me at short intervals, but he was once, during my knowledge of him, as long as fifteen months without suffering inconvenience or needing assistance. The disability to pass urine always arose from the same cause—namely, overstaying the inclination to pass it, or overstaying the usual time of evacuation. The visits to me occurred, with very rare exceptions, during the night—most frequently about two or three o'clock in the morning, occasionally as late as six o'clock; very infrequently during the daytime. The common interval between the times of passing water was two hours or two hours and a half. When that time happened to be prolonged in any considerable degree the inability to evacuate occurred. The delay was easily avoided in the daytime—the waking hours; but at night the insensibility of sound sleep would now and then carry the patient over the proper margin of time. That was the common, if not the invariable, cause of the seizure.

Having, at his first visit to me, noticed a peculiarity in the position of the urinary canal, and perhaps having made a remark about it, I learnt that Mr. M. had previously sought the aid of other Surgeons. He said that he had suffered much pain and had lost blood whenever the instrument was passed. While the attack of disability to empty the bladder lasted the suffering of this gentleman was intense. That it was so was evident from his strong expression of pain, and from his extreme anxiety to obtain relief in the shortest time possible. From apprehension of recurrence of suffering, with the knowledge that it may recur any night, Mr. M., when quite well, was in the habit, during those many years, of making arrangements, often very ingenious, to secure access to relief in the

speediest way. Another measure of the pain endured on account of retention of urine, under different circumstances, may be given by reference to another person, a patient in the Hospital.

Case 2.—S. S. [Hospital Male Case-book, No. 21, p. 116], a man, aged 38, was brought into University College Hospital to be relieved of retention of urine resulting from organic stricture of the urethra. The House-Surgeon, unable to pass an instrument, gave full doses of opium, which, however, were not effectual either in enabling the patient to pass urine or in rendering the urethra passable to an instrument. I found it advisable to puncture the bladder through the rectum. The operation was attended with the immediate relief of pain which the evacuation of a distended bladder always affords. But pain having ceased, another difficulty arose. The patient had speedily the symptoms that result from an overdose of opium. It then required active recourse to the usual management of such a complication to prevent the patient being poisoned by the medicine, which during the continuance of his sufferings was innocuous. From the circumstances of this case we may judge, I think, that the pain Mr. M. seemed to endure was not the result of any mere apprehension as to results, or of excitability of temperament; we may judge that it was real pain, and intense. In the facts there is a sufficient explanation of the anxiety—even restlessness—of Mr. M. when quite free from any feelings of illness to insure means of obtaining speedy relief in the event of being surprised by recurrence of suffering. The facts also show the importance of any person in such circumstances being enabled to relieve himself.

When I first saw Mr. M. I wished him to use a catheter for himself; but he absolutely refused to make a trial, from fear that he must fail, and that he might do mischief on account of a degree of clumsiness of his fingers, which were partially stiffened by slight attacks of rheumatism. He had, besides, from former experience, a fear of any new trial, whether by himself or anyone else. At length, however, on an occasion that I proposed to be away from home—further away and for a longer time than usual—he made the attempt, and he succeeded with little more direction than is required in common cases. Thereafter I saw nothing of this gentleman until he had an attack of general illness. He had passed the eighty-first year of his age in good health, when he had a severe attack of idiopathic erysipelas. After that illness had passed away, he sank from exhaustion, owing apparently to inability to take food of any kind.

The examination after death in so far as concerns our purpose gave the following results:—In the place of the urinary bladder at the fore part of the pelvis was a large mass, for the most part solid, which extended some way above the pubes (Fig. 1). This was, in fact, the urinary bladder, filled in great part with a firm tumour. The tumour itself was in part above the pubes—in the abdomen, therefore. A section of the whole having been made (Fig. 2), the tumour was found to be the prostate gland, enlarged, in an unusual position—above the urethra instead of below it, as is common. The upper end of the enlarged prostate is seen to be conical (Figs. 1 and 2)—so formed that urine would necessarily glide from it towards the urethra, unimpeded by the gland or any part of it. The lower part of the prostate (lateral lobes and the middle one) is represented by a thin layer of glandular substance mixed with muscular fibres. This is, as in the ordinary condition, continuous with the anterior part of the gland.

The urinary bladder was free to contain urine only in part. The bladder proper of the case was wholly in the abdomen or very nearly (Fig. 1). There was no dependent part (fundus) behind the opening into the urethra (Fig. 2), as is usual in the adult and is especially well marked in advanced age.

The urethra—in which a bougie has been placed by the dissector—continues from the back part of the bladder, instead of being at the fore part of that cavity. From this, the natural position, it was doubtless pressed away during the growth of the anterior tumour. The free course of the canal was not, it may be noticed, impeded by any obstruction, either by the prostate or any other structure.

The points of greatest interest in the foregoing case may be shortly stated as follows:—The power to evacuate urine remained entire except at intervals. All through the long series of years during which Mr. M. was liable to (and at intervals suffered from) retention, the inability to pass urine did not continue beyond the single seizure; insomuch that, after relief once given, the inability did not return except after a certain space of time—several days, or weeks, or even months. On no more than two occasions during thirteen years was it necessary to resort to the use of the catheter a second time—not once a third time—on the same day; and even then the bladder had evacuated its contents spontaneously several times before the return of retention. Thus the recovery was complete each time after the single act of assistance; and so it was to the end.

Again, there was no indication, throughout the whole history of the case, that any urine remained after the spontaneous evacuation. Nor was there an indication that the kidneys or other part of the urinary organs were otherwise than healthy. The general health, too, was unimpaired except in so far as occasional slight rheumatism was concerned.

The question occurs, Whence arose the delay and difficulty which, according to Mr. M.'s statement, had at first been experienced in the use of the catheter? The answer must, I think, be this: The urethra was not in the usual position. Commonly in aged men suffering with retention of urine, that canal near its vesical end is raised above or in front of the place natural in previous life; for commonly—indeed, in my experience, almost invariably—the enlargement of the prostate which obstructs or interferes with the freedom of the flow of urine occurs in the part of the gland beneath or behind the urethra—between it and the rectum. Hence the Surgeon expects that the point of his instrument, when it approaches the bladder and is arrested in its course onwards, should be raised towards the pubes. Every tyro is familiar with the expedients, carefully described in elementary treatises, which help to overcome the impediment arising from the usual cause—viz., the tumour behind the urethra. But, in the case before us, the urethra was not raised or pushed forwards. On the contrary, it was behind its usual position—was pressed backwards, the enlargement of the prostate being before the canal. The difficulty, then, and delay, and loss of blood stated

FIG. 1.

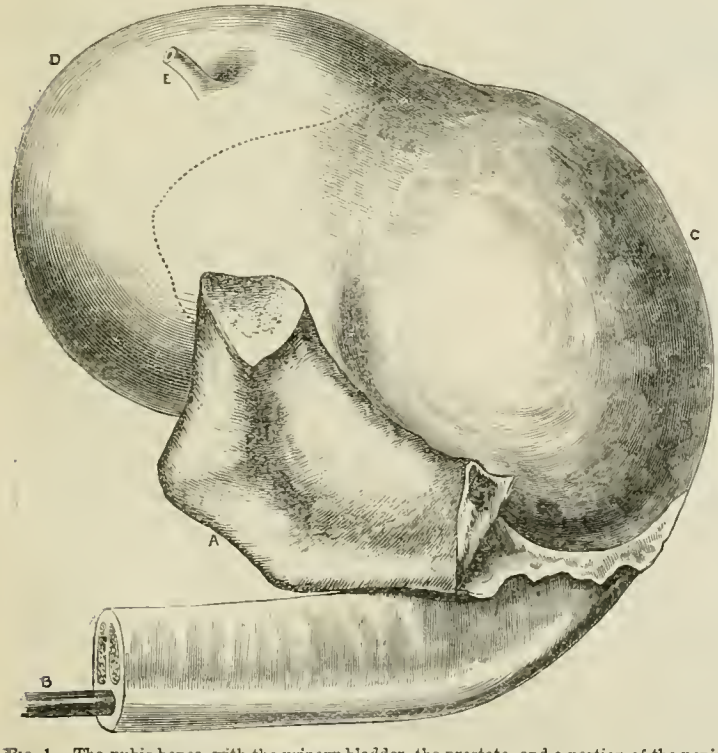

FIG. 1.—The pubic bones, with the urinary bladder, the prostate, and a portion of the penis, as seen from the left side. A, the symphysis of the pubes; B, bougie in the urethra; C, the back part of the enlarged prostate. None of the gland projects in the form of lateral or posterior lobes. The place of the upper end of the prostatic tumour is represented by a dotted curved line. D, the top of the bladder; E, the left ureter.

to have occurred in passing the catheter, arose, I apprehend, from the efforts to find the urethra in the accustomed place of aged persons affected with retention of urine.

It has been stated that Mr. M.'s distress had its beginning in a railway journey, and that the retention of urine recurred invariably from delaying the evacuation. Many aged persons begin to suffer in the same way—*i.e.*, in some form of travelling or in the too protracted delay of the evacuation under any circumstances. There are, however, points of clear difference between the case narrated and those ordinarily met with. In the latter the first distress does not usually pass away quickly as in the case of Mr. M. That case was, judging from my own experience, singular both in the frequent recurrence of retention and in its rapid cessation. But, instead of speaking in general terms as to results of other cases, I shall refer to one or two actual examples of the malady; noticing the facts, however, only so far as they bear upon the point now in question.

The wood engravings have been diminished one-third from the drawings made at my desire by Mr. Ford from the preparation No. 2499A in the Museum of the College of Surgeons, to which I presented it.

FIG. 2.

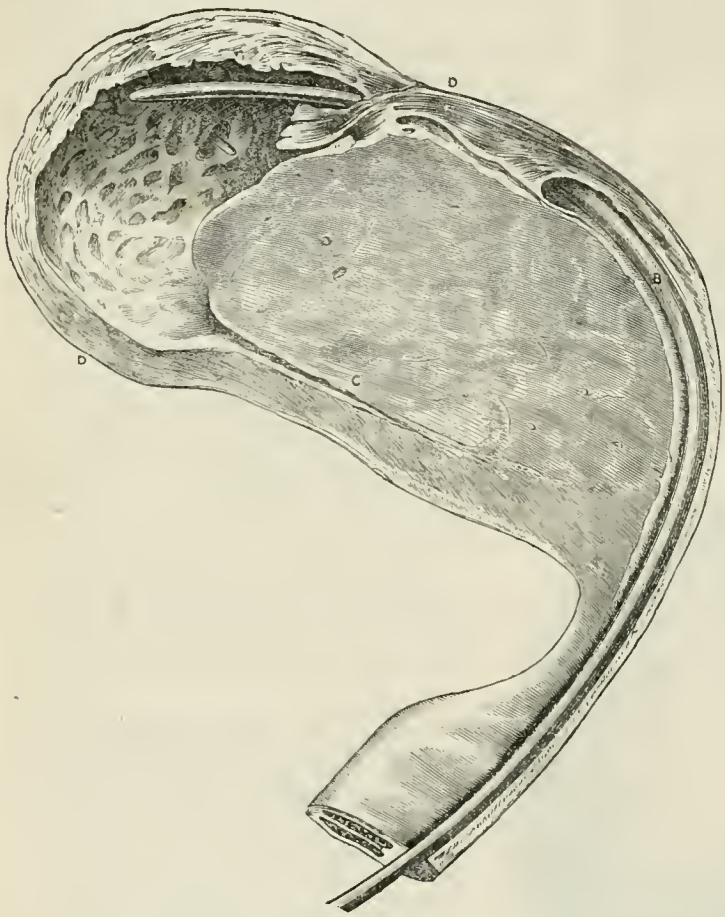

FIG. 2.—A vertical section in the middle of the parts represented in the preceding figure, the bones omitted. The letters as in Fig. 1. A part of one vesicula seminalis exists in the preparation opposite the lower end of the structure which covers the bougie.

Case 3.—A gentleman aged 64 years, while engaged in some scientific inquiries, drove with friends for several hours through one of our midland counties. In the evening, when he arrived at his journey's end, he was unable to pass water. After some ineffectual attempts to relieve him, he came to his home in London. The disability, and the difficulty experienced in passing a catheter, were found, as expected, to be connected with enlargement of the prostate gland. Sixteen days elapsed before there was any natural discharge of urine; and then only a little was passed without aid. It was twelve days later—four weeks from the attack of retention—that the patient became independent of assistance. Now, more than ten years from the incident referred to, this gentleman appears to be, and I am assured is, in good health.

One other case will be enough for my present purpose—namely, the further illustration of the varied and often serious effects of delay of the evacuation of urine in aged persons.

Case 4.—A robust man, in excellent health, aged 66 years, in high official position, actively engaged for several hours day after day in the work of his office, was obliged by the illness of a member of his family to travel by railway a distance of about 150 miles from London. When he arrived he was unable to pass urine. In affording relief there was considerable delay; and much difficulty, occasioning severe distress, was said to have occurred. Returned after more than a week to London, this gentleman continued to suffer. He had pain about the pelvis and renal region, with a good deal of constitutional disturbance. The prostate was found, by examination through the rectum, to be much enlarged and prominent there. Urine passed involuntarily. There was no accumulation in the bladder.

At the end of four months the patient was much improved in health, and he went to his country home. But I learnt that in two months later, having been exposed to damp during some occupation out of doors, he was suddenly seized with a return of the worst symptoms in an aggravated form, accompanied with copious discharge of puriform matter from the urethra; and he sank rapidly.

In the three cases the alteration of structure which preceded the sudden seizure of pain and illness, affected the same organ—the prostate. But while in the first the upper part of the gland was enlarged, the lower and lateral part was so altered in the other two. This latter is the common condition.

The disability which the three suffered being the same, and the circumstances under which it arose in all being also the same, I would inquire what was its immediate cause? and why were the results of the cases different—using the first and most remarkable case for the elucidation of the others, which may be considered typical of large numbers?

Inasmuch as the only change of condition when the malady began was the unwonted accumulation of urine, it must be concluded that the inability to evacuate was owing to the over-distension of the bladder diminished in its capacity, and the enfeebling—in a measure paralysing—effect on the muscular fibres unduly stretched by the distension. As to the difference of the results: The expulsive power in Case 1, though impaired by the cause adverted to, was yet, the first difficulty being overcome, equal to the accomplishment of the natural function, because, in all likelihood, of the entire freedom of the urethra from encroachment or obstruction of any kind; while in the other cases the diminished muscular power was insufficient to overcome the impediment which the prostate afforded to the flow of urine. With the recovery of muscular tone the expulsive power was restored. So it is in most cases; but in some instances the paralysis is permanent.

Now, seeing that in consequence of the enlargement of a natural structure—not a disease—which frequently, but by no means invariably or even generally, accompanies advancing age, many men, while still in good health of body and in vigour of intellect, are liable to be struck down with painful illness of some duration [Cases 3 and 4]—nay, to be permanently damaged in health, or even to have life cut short [Case 4]—seeing, moreover, that the evils are excited by what appears so small a cause—one clearly preventible—it will be conceded that those liable to such evils should be carefully provided with the means of avoiding them. One obvious precaution is necessary. Though well known, it is too little resorted to. Why? Apparatus with various adjustments to hinder the necessity for delaying the evacuation are to be had; but unfortunately they are commonly said by those who have worn them to be so little convenient that risk is preferred to the discomfort of the protection against it. So it was in Case 4, and so I have known it in several others. There seems to be wanted the zeal of an intelligent maker or seller of such apparatus, to learn by observation on himself the defects of construction which interfere with comfort, and so to arrive at a satisfactory arrangement.

The following microscopical drawings, made from the preparation No. 2499A in the Museum of the College of Surgeons, with the statement respecting the structure of the prostatic tumour, relate to Case 2, and have been furnished to me, at my request, by Mr. James F. Godhart, Assistant-Conservator of the Museum.

FIG. 3.

FIG. 3 shows a fibrous stroma, bounding many spaces filled with cells. Of these many have escaped, leaving the spaces empty. *a a* fibrous stroma, *b b* empty spaces, *c c* spaces still containing cells, *d* space more highly magnified in Fig. 4.

FIG. 4.

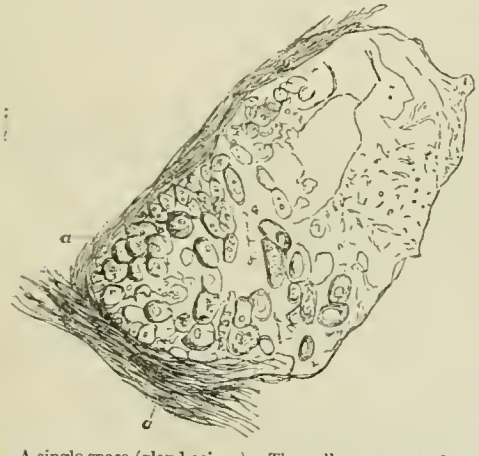

FIG. 4.—A single space (gland acinus). The cells are arranged somewhat regularly alongside each other, and often in beaded strings radiating from centre to circumference. A very delicate hyaline substance connects them together.

Structure.—The tumour forms a solid mass, without apparent distinction into lobes, except at the lower and posterior parts, where a small lobe is separated from the rest by the urethra, through which the catheter is passed. Both this small posterior portion and the large mass have a common structure—adenoid in its nature. No normal prostate tissue exists apart from the glandular tumour, except at the most dependent part. Here below the urethra is some stretched and apparently wasted, but otherwise normal, prostate structure. This would probably correspond to a lower lobe.

(*To be continued.*)

APPLICATION IN INFANTILE ERYSIPELAS.—Professor Trousseau recommends the following solution to be applied by means of a small brush to all parts of the infant's body upon which erysipelas has made its appearance:—Ether sulphuric, 60; camphor, 30 parts.—*Union Méd.*, May 7.

THE PHYSIOLOGY AND CLINICAL USE OF THE SPHYGMOGRAPH.

By F. A. MAHOMED,
Student of Guy's Hospital.

No. VI.

On Mitral Stenosis—Cardiographic Proof of the Mode of Production of the Presystolic Murmur—Special Characters of the Apex-beat and Pulse—Effect on the Circulation generally—Notes of Cases.

(*Vide Plate Published with Medical Times and Gazette, April* 13.)

IN the present communication it is intended to draw attention to the effect produced upon the circulation and upon the heart by mitral stenosis, and while doing so certain facts will be brought forward which appear to the writer to throw much light on the pathology of this disease, and on the production of the auscultatory sounds accompanying it. Although it should be stated that a sphygmographic tracing in this disease does not necessarily possess any diagnostic characteristics, still it will be found that under certain conditions it may do so, and that if taken together with tracings obtained of the apex of the heart, very valuable information is afforded, and in many cases a diagnosis may be arrived at.

The mode of production of the bruits which accompany contraction of the mitral orifice is at present by far the most keenly debated point in cardiac pathology; and it is only with the greatest diffidence that the discussion of a question on which the most brilliant observers differ is entered upon—indeed it would not be, but that the results obtained appear too important to be passed over in silence.

On the physical signs which accompany contraction of the mitral orifice, I believe all are now agreed; it is upon the mode of production of these signs that so many differ. Any Physician who hears a harsh churning bruit, localised at the apex, and occurring during "*le grand silence*"—namely, after the second and before the first sound—followed or not by an ordinary systolic murmur, and accompanied by the "*frémissement cataire*," will assert that the mitral orifice is contracted. But whether the so-called presystolic murmur is *auricular-systolic* or *ventricular-systolic*, whether it is a *direct* or *regurgitant* murmur, is the question which still requires solution, and on this question the sphygmograph and cardiograph combined appear to give almost decisive evidence.

The characteristic murmur of mitral contraction, which is now generally described by the term "presystolic," is found to take place at various intervals before the first sound, sometimes occurring as a short murmur immediately before it, and at other times commencing immediately after the second sound and continuing up to the first, or again appearing to be only a reduplication of the second sound. Sometimes it is present, sometimes absent, and its character varies from day to day.

Now, it is well known that in the normal condition the contraction of the auricle is a rapid, short movement, immediately preceding the more sustained ventricular contraction. It is apparent in an apex tracing of the heart as a slight elevation preceding the commencement of the main upstroke. It can be seen in a well-marked degree, and of a longer duration than normal, in Fig. 10, Pl. iv. That this elevation is really caused by the auricular contraction has been proved beyond doubt—first by Marey, and since then by many other leading physiologists. One experiment that is almost conclusive of this fact is that in which three small bags, connected with polygraphic levers, are introduced—one into the auricle, another into the ventricle, and the third placed over the apex of the heart of an animal—the three levers writing simultaneously and immediately below one another, when it is found that the elevation corresponding to that seen in Fig. 10, immediately preceding the main upstroke produced by the systole of the ventricle, exactly corresponds to the movements of the lever connected with the interior of the auricle. Again, another fact in proof of this is that hypertrophy of the auricle may be diagnosed by the increased size of this elevation, as seen in Fig. 6, Pl. iii. This diagnosis was confirmed by an autopsy, as stated in the last paper. Accepting this point, then, a solution may be found to the irregularity in rhythm of the presystolic bruit. It may be asked, How can a bruit occurring immediately after the second sound be produced by the contraction of the auricle, which is said to be instantaneous? It is owing to the contraction of a hypertrophied auricle when resisted by a contracted mitral orifice, often occurring earlier and lasting longer than usual. That this actually takes place is shown by Fig. 12, Pl. iv.,

This case will be mentioned more fully below. It is only desired at present to call attention to this tracing of the apex of the heart. It will be noticed that the action is irregular, and previous to the first cardiac contraction recorded in the tracing there is a long intermission apparent. During almost the whole of this period the auricle was contracting. The short upstroke indicating its commencement is seen to take place very soon after the termination of the preceding ventricular systole, and it is succeeded by a gradually ascending line, terminated by the sudden vertical upstroke of the next contraction. In the succeeding contractions, which were more regular, the auricular systole is seen more or less well marked, but in each instance extending over a somewhat longer period than normal.

This peculiarity in rhythm I have frequently found in mitral stenosis. The physical conditions prompting its occurrence are evident: the left auricle, unable to thoroughly evacuate its contents, owing to the obstruction at the mitral orifice, remains more or less full, and is generally distended at the termination of the ventricular systole, during which time it has been receiving more blood. It is thus stimulated to contract, and this it does slowly and with effort. But this is not always the case. The ventricle often will not adapt itself to the altered rhythm of the auricle, but contracts immediately after the latter; and when this occurs earlier than usual, following immediately the termination of the previous contraction of the ventricle, as described above, it gives rise to another peculiarity in rhythm —namely, the occurrence of a secondary contraction of the ventricle, which is indicated both by cardiographic and sphygmographic tracings. This is seen in Figs. 3, 4, 14, and 16, Pl. iv. Whenever the pulse in mitral contraction is made slow by digitalis, this character may be brought out—indeed, it may be considered almost diagnostic of the disease; so especially may this peculiar form of irregularity when occurring in the pulse without being produced by artificial means. The secondary beat occurs after the closure of the aortic valves, or of the dicrotic wave in the tracings. The condition of the auricle described above also accounts for the pulse in cases where there is considerable mitral obstruction, being usually rapid.

It is very interesting to find that these results obtained by mechanical means coincide with the observations of some of the most careful auscultators who have paid special attention to this subject, but whose observations, lacking the indisputable proof of instrumental aid, might perhaps otherwise be open to doubt. Dr. Wilks, in his paper on "History of Valvular Disease of the Heart" (Guy's Hospital Reports, 1871), quotes a case of Laennec's, and makes the following remark:—"One point alluded to in the above case is of interest, as it has not yet been clearly elucidated, and that is his referring the bruit to the slower contraction of the auricle." Dr. Fagge also, in his paper "On the Murmurs attendant on Mitral Contraction," mentions several cases in which he considered that the "systole of the hypertrophied auricular appendix occurred so early that it seemed to follow a second sound rather than to precede the next first sound." Moreover, he discusses at length the double rhythm, occurring in the case of E. B., whose tracings appear in Plate iv., and remarks on its production by digitalis; he also quotes Duroziez, who states that in one case, while digitalis was being given, "the pulse generally became slower, and *became double*, each strong pulsation being followed by a feeble one." It appears, therefore, that if proof of the prolonged contraction of the auricle occurring during the ventricular diastole and time of rest could be given, the fact of the *presystolic* murmur being *auricular-systolic* must be admitted; and this proof is obtained by aid of the cardiograph and sphygmograph. Moreover, I can but think that these observations completely overthrow any theory of the production of this bruit by an early and gradual commencement of the ventricular systole, as suggested by Dr. Barclay in his papers on this subject, which appeared recently in the *Lancet*. As to the truth of these inferences I must appeal to the judgment of more mature minds than my own, and those more capable of deciding a question of such intricacy.

So far the general results obtained by aid of the sphygmograph have been discussed; the cases that appear in the Plate may now be referred to individually.

Fig. 1 was obtained from J. C., a man admitted under Dr. Wilks, April 8, 1871, with symptoms of heart disease. The bruit most usually heard was systolic, audible at the apex, in the axilla, and posteriorly, but occasionally a distinct presystolic bruit was audible, and at times no abnormal sound could be detected; a "purring tremor" was faintly perceptible over the cardiac region. When this tracing was obtained he was in an apparently moribund condition, though he lingered for a week or two afterwards. The autopsy confirmed the diagnosis made during life, of a contracted mitral. This valve was constricted, and there were thick vegetations on its auricular surface. The left ventricle was normal in size, but the left auricle was dilated and greatly hypertrophied. The right side was also dilated. The tracing obtained differs very markedly from that which would be found in a case of mitral regurgitant disease where the patient was approaching dissolution. In such a case the pulse would be irregular, the upstrokes sloping and very short, and dicrotism absent. Here the upstroke is vertical, percussion not being interfered with; the mitral valve still offering a point of resistance for the ventricle to contract against. The pulse is quick, owing to the over-distended auricle being always ready to contract and relieve its distension; and it is also dicrotic. The obstruction being great, the venous circulation was engorged; and this acted in the same way as obstruction to the capillaries, causing a large part of the contraction of the heart to be expended in dilating the elastic aorta, and thus producing a well-marked dicrotic wave. This does not occur in simple regurgitant disease, though the venous engorgement may be as great; for, as previously noticed, less blood is driven into the aorta, and with less force: its elastic coat, therefore, is not distended.

Figs. 2, 3, and 4 were obtained at different times from the pulse of E. B., a patient under the care of Dr. Fagge. The case has been discussed by him very fully in his paper "On the Presystolic Murmur" referred to above. It will be unnecessary to enter into particulars of the case here, beyond stating that a presystolic bruit was distinctly audible, and that no doubt was entertained of the nature of the disease. In Fig. 2 there is no point of interest about the pulse, except the undulation in the respiratory line. This is of frequent occurrence in mitral obstruction. It is not very noticeable in the fragment of the tracing reproduced in the plate; but if a horizontal line be drawn from the base of the first upstroke to that of the last, the upstrokes between them will be seen not to reach the same level. In Fig. 3 the peculiar rhythm referred to above, and described at some length by Dr. Fagge, will be seen to be produced. This tracing was obtained after exercise. In Fig. 4 the same result was obtained as a more permanent condition by the use of digitalis. It will be seen that in both instances the secondary contraction of the ventricle occurs after the aortic notch—that is, after the closure of the semilunar valves.

Figs. 5, 6, and 7 were obtained from a patient who was admitted under the care of Mr. Cooper Forster for Surgical treatment, but died in the Hospital from cardiac disease. Contraction of the mitral orifice was diagnosed during life by Dr. Goodhart, by whom a presystolic murmur was heard. When I examined him the action of the heart was too rapid to admit of the nature of the bruit being discovered. The autopsy revealed a dilated right side, an hypertrophied left auricle, and a mitral valve admitting only one finger. The tracings show great and increasing obstruction to the circulation. In Fig. 5 the pulse, though small, has a well-marked percussion-wave, and a large amount of dicrotism from the obstruction to the venous circulation. In Fig. 6, taken a few days later, the dicrotism is still more marked, the pulse now being hyperdicrotic; and Fig. 7, taken on the following day, which was two or three before death occurred, shows a failing heart—the pulse has become irregular, small, and feeble; the apices of the tracing are rounded; and after a few somewhat more efficient contractions come a series of very feeble inefficient attempts, sufficient to produce a slight impulse at the wrist, but insufficient to distend the aorta and produce a dicrotic wave.

The case of C. D., from whom Figs. 8, 9, 10, 11, and 12 were obtained, presents a considerable amount of interest. She was first admitted under the care of Dr. Moxon on May 17, 1871. She had never suffered from rheumatism, but there was a systolic mitral murmur audible at the apex, and faintly between the scapulæ. Her case was complicated by purpura and hydroa; but these points require no further notice here. During her stay in the Hospital at this time the second sound occasionally appeared to be reduplicated. There was also a *frémissement* perceptible over the cardiac region, and the question of contracted mitral was raised, but not generally entertained. At this time I felt but little doubt of the nature of the case, for the reduplication of the second sound that was heard at the apex sometimes assumed a much more bruit-like character, and appeared to be a presystolic murmur. My diagnosis was still more sustained by finding that a tracing of the apex represented in Fig. 10 showed an hypertrophied and slowly contracting auricle. Fig. 7, obtained soon after her admission,

indicated an excited action of her heart, the percussion-wave being very well marked, while the tidal is comparatively small. Fig. 8 represents her pulse later, when the general condition had much improved. The tidal wave is now much larger, and bears a fair proportion to the percussion. She left the Hospital in July, but was again admitted, under Dr. Habershon, on account of increased cardiac symptoms in August. She now appears to have suffered from pulmonary apoplexy. The murmur is described as that of regurgitant mitral. No mention is made in the report of its presystolic character, but it is stated that just before leaving the Hospital the murmur entirely disappeared, and the sounds of the heart were normal. I did not see her during this period, but in January, 1872, she was once more admitted, this time under the care of Dr. Fagge. She had again suffered from pulmonary apoplexy, and the action of the heart was irregular. There was a well-marked thrill over it, and the predominant murmur was that probably produced by mitral regurgitation; but the presystolic murmur was now much more marked than formerly; it was especially distinct during the intervals of intermission. During these long periods of pause this harsh murmur was plainly heard ending before the systole, and separated by a short interval from the regurgitant murmur. Dr. Fagge was quite convinced of the character of the murmur, and it was now generally looked upon as a case of contracted mitral. The tracing obtained of the apex-beat (Fig. 12) has been already referred to. The early commencement and prolonged duration of the auricular contraction make it of the greatest interest. Fig. 11 represents her pulse a few days later, when her condition had much improved. It is perfectly normal in appearance, the circulation being apparently carried on efficiently. This probably is owing to two facts—first, that the disease of the valve is not very excessive; secondly, that the pulse being slow, and the auricle (as seen in the tracings of the apex) having learnt to contract slowly and to commence its contractions earlier than usual, is able to thoroughly empty itself, and accordingly makes the ventricular contraction more efficient. While she is kept at rest in the Hospital this state of things continues, and her condition improves; but on returning home and renewing her usual occupation the rapidity of the heart's action is increased, the left auricle is no longer able to completely empty itself, and the right side becomes distended. Her symptoms now increase l, and she suffers from the ordinary troubles of cardiac disease.

The diagnosis in the last case in this plate is perhaps open to doubt, the evidence of constricted mitral being chiefly sphygmographic and cardiographic.

M. A. B. was admitted into the clinical ward, January 27, 1872, under the care of Dr. Wilks. She has had three previous attacks of rheumatism; the first attack, eleven years ago, being accompanied by palpitation and pain in the left side. On admission she was suffering from subacute rheumatism and heart disease. The following note was made by the Clinical Assistant:—"Loud bruit with the first sound; heard best at apex. It can be traced into the axilla, and round as far as the superior angle of the scapula. Apex-beat normal. Slight thrill over it." Several times when examining her heart I thought that there was a presystolic bruit, especially when its action was irregular. During a period of intermission I have heard a bruit, which commenced after the second sound, and ended before the first, and possessed a different tone from the blowing systolic bruit which was usually audible; but this observation was not generally agreed with. Her pulse was then 80, and it is not described as irregular. On February 12 the heart's action was very irregular. She was ordered—Tr. digitalis ɱx., ex aqua, three times a day. The following day the tracing represented in Fig. 13 was obtained. It may be noticed that it is extremely irregular, the irregularity bearing no relation to the respiratory movements, as that of mitral regurgitation usually does. In the first large wave in this tracing a slight secondary contraction is indicated by an irregularity in the downstroke after the aortic notch. Fig. 14 represents a cardiographic tracing taken two days subsequently. It may be noticed previous to the fifth contraction figured in the tracing that there is a well-marked and gradual auricular contraction. The next contraction that occurs is seen to be followed by a secondary contraction like that previously seen several times in the tracings of the pulse in this and other cases. By February 24 the digitalis had taken effect, and the pulse was almost perfectly regular. Pressing the drug a little further, on the 26th it assumed the characteristic irregularity of a secondary contraction. This is well seen in the last tracing in this plate.

So much for the indications afforded by these instrumental means of contraction of the mitral orifice. To sum up the whole, it may be said—first, that light may be thrown on the mode of production of the bruit heard; and secondly, that though the sphygmograph may not in all cases enable us to diagnose the disease, still it may often afford strong indications to assist us, and at least will give negative evidence.

(To be continued.)

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Medical Times and Gazette.

SATURDAY, MAY 18, 1872.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

The Council of the Royal Medical Benevolent College were able to lay a good report for the past year before the annual meeting of governors and before the general public at the dinner at Willis's Rooms on Friday last. The institution has, indeed, progressed so rapidly that already there are signs that the vigorous portion is likely to break away from the less active, and maintain an independent existence; and that such should be the case we, for our part, cordially hope. As a school Epsom is most flourishing. Already there are in the ranks of our Profession a large number of very able men who are proud to look back upon being old Epsom boys, and that, too, notwithstanding the drag of the title; for it is not to be concealed that a large number of those who send their sons there, and a still larger number of those who are sent there, do strenuously object to the title. They pay their way and want nothing to do with benevolence. As a striking corroboration of this we might refer to what meets the eye of the visitor leaving Epsom and entering on the road which leads to the College. There in olden times was a sign-post pointing the way to the Royal Medical Benevolent College, but this has been so cunningly curtailed that only the word "College" is left—a word which, on the whole, fairly answers the original purpose.

It is matter for congratulation that the Profession has there a College where a first-rate education—everything included—can be obtained for £45. We are also glad that there are a certain number of foundation scholarships open to the Profession, whereby a good education can be obtained free of charge; but we are strongly opposed to increasing the number of these. Even now the difficulty of canvassing, and the expense it

entails, throw serious obstacles in the way of these doing unmixed good; much rather would we prefer the system recently introduced of giving exhibitions, whereby, let us say, the College education is defrayed, and only that of living has to be paid by the parents. This, where it is workable, is a system much more likely to foster independence than the other. It is, at the same time, rather honourable to the boy than otherwise—which, in the meantime, a foundation scholarship is not.

One great step has, however, been taken to raise the school. Erasmus Wilson has munificently undertaken to build a master's house with accommodation for thirty boys. These will of course be taken at advanced rates, but the advantages will be correspondingly great; and we may hope in no long time to see others of the masters provided for in like manner. We hold, then, that nothing is more likely to raise the whole tone of the school over its present high level than such plans.

It is befitting that in a school specially devoted to the sons of Medical men the teaching of science should take an appropriate place. Such teaching has been begun, and we understand that next term there will be a resident master, who will devote his attention solely to this. But it seems to us that there is a danger ahead to be strenuously guarded against—viz., the introduction of the vicious system of teaching science as an end, not as a means—as an end, that is to say, to the procuring of rewards and scholarships, and not as a means of training valuable in the highest degree.

There is yet one portion of our subject we touch upon with reluctance. It cannot be disguised that there is a kind of split in the camp of the supporters of this institution. Its object is twofold, and whereas some devote their attention and keenest sympathies to the school, others do the like to the asylum. We confess ourselves of those who would gladly see the two apart, in place at all events. The introduction of the two extremes of life into the same building was not happy; and whilst ardently wishing success to this portion of the institution, as to the other, we should be heartily glad to see the old people elsewhere comfortably housed. Let us hope the Council will find some way out of the difficulty.

"THE PRACTISING CHEMIST."

"The practising chemist"—by which designation we do not indicate merely those who, like Mr. Andrews, of recent notoriety, practise under cover of a questionable degree, but those who openly practise for and visit patients as Medical men, without even the semblance of diploma or licence—must certainly be dealt with in the next Medical Act, whenever it may please the Legislature to turn its attention to that important desideratum. Time was when any man could, by the common law, practise as a Medical man or open a shop for the sale of drugs, and even combine the two callings. But the common law, the law of primitive times, is still dear in theory to the hearts of Englishmen, and is generally tenderly dealt with by Acts of Parliament. Hence the Medical Act of 1858 inflicts no penalty upon the most audacious quack beyond that of disabling him from recovering charges for medicine and attendance, unless he goes the length of wilfully and falsely proclaiming himself an M.D., or affects some title implying that he is registered under the Act. If he stops short of this he may act the part of a Medical man with impunity, by simply taking the precaution and enjoying the advantage of demanding "cash on delivery." It is true he may still have the dread of the Apothecaries' Society, or even of the Royal College of Physicians, before his eyes; but if he be a duly registered pharmaceutical chemist, authorised to sell drugs and poisons, he knows the extreme difficulty of proving an infringement of the rights of the former, and looks upon the antiquated jurisdiction of the latter as a mere *brutum fulmen*. At all events, he can only be proceeded against by those bodies themselves. He may have infringed their prerogatives, but with this the public have nothing to do. No officer of health, no sanitary commissioner, no private nor public prosecutor (if such latter functionary existed), could take the place of those august bodies, or even put them in motion. His name may be removed from the register of the Pharmaceutical Society if he is practising under the right of a Medical degree, foreign or domestic; but if he has avoided that pitfall he is safe. The Pharmaceutical Society has no power to sue for penalties for the infringement of the privileges of other bodies. The Licentiate of the Royal College of Physicians may suffer in his exercise of pharmacy—the general Practitioner may be likewise damaged—nay, even the Fellow of the Royal College of Surgeons, or the Fellow of the Royal College of Physicians may find himself supplanted by an ignorant bone-setter, or a prescribing drug-seller—but the remedy is *in nubibus*. The "practising chemist," authorised to dispense and compound the prescriptions of Medical men, may surely pay a visit to a customer and tender advice, sheltering himself from the objection of having prescribed the medicine supplied, in having compounded it from a Physician's prescription, duly copied in his prescription-book; but, conscious that he cannot recover charges for Medical attendance, he is content to include in the price of his medicine a sum sufficiently remunerative for his extra trouble. Now, what is the remedy for this state of things? A short enactment to the following effect:—"That if any chemist, etc., shall himself prescribe medicine for any other person, or shall compound medicine from the prescription of any Medical man, except at the request of such Medical Practitioner, or of the holder of the prescription, or shall give Medical or Surgical advice to, or perform any Surgical operation upon, or attend and visit any patient as a Medical Practitioner, he shall be liable upon conviction before two justices of the peace, for every such offence, to a penalty not exceeding £50." A right of appeal to the Court of Queen's Bench should be allowed. If some such stringent measure is not adopted, the "practising chemist" will before long be giving certificates of death and its cause, as even here the law in strictness only requires that *some person present at, or in attendance during, the last illness* of the deceased, or in case of the death or default of such person, the occupier of the house, or if the occupier be the person deceased, some inmate of the house, etc., in which the death took place, should supply the registrar with information upon being requested so to do, *according to the best of his (or her) ability*, of all particulars touching the death of such person. Thus, that which was intended to form an exception may become the rule—that which was intended to meet the unavoidable absence of Medical attendance during the last illness may be abused and distorted to confirm the intrusion of the "practising chemist," to the exclusion of the Medical man, at least among that large class of half-educated people who look upon all chemists' shops as "doctors'" shops, and fancy they discern in many coloured bottles labelled with hieroglyphics the cabalistic signs of the art divine.

BOWS AND ARROWS.

How many, or rather how few, Surgeons ever think that in these days the treatment of wounds by arrows can form a real and not unimportant part of military Surgery! or how few among us, civilians or soldiers, could, in these times of *armes à précision*, and breech-loading rifles that are deadly at such distances as to make useless the artillery of a few years back, hear without a "laugh of merry scorn" a suggestion that archers might be advantageously employed with regular troops, or that soldiers should, like our ironclads, wear defensive armour to protect them, not against bullets, but against arrows! Would not each and all be ready to quote Sir Dugald Dalgetty's expressions of contempt for bows and arrows? "Bows and arrows!" exclaimed Dalgetty, "Ha! ha! ha! have Robin Hood and Little

Jack back again? Bows and arrows! Why, the sight has not been seen in a civilised war for a hundred years. Bows and arrows! and why not weaver's beams, as in the days of Goliah? Ah! that Dugald Dalgetty, of Drumthwacket, should have lived to see men fight with bows and arrows! The immortal Gustavus would never have believed it, nor Wallenstein, nor Butler, nor old Tibby."

Of course, however, we all know that bows and arrows have been most formidable and effective weapons in the chase and in war, through numberless ages in the world's history, from the time when Ishmael "dwelt in the wilderness, and became an archer," down to nearly the end of the sixteenth century, when "Good Queen Bess" engaged by treaty to supply the King of France with 6000 men, partly armed with long-, partly with cross-bows; and later than that. "Every schoolboy" knows all about the archers of the Greek and Roman armies, about the mighty bow of Ulysses, and about those mounted archers the Parthians, unconquered and unconquerable until the Romans copied their mode of fighting; and of course every youth who thinks of trying to become, in these glorious days of competitive examination, even a tide-waiter at the Custom-house, or a Post-office *galopin*, knows how the English long-bow won the battles of Cressy, Poictiers, and Agincourt, and can tell how, in many a stubborn fight with the Scots, "the English shafts in volleys hail'd," and how, when there "fell England's arrow-flight like rain," steel-clad knights and men-at-arms were alike mown down, and melted away before the destructive horizontal and vertical fire. We suppose even that the Surgical student of the period must be well up in Homer's description of wounds by arrows, be able to cite Chiron and Machaon's patients, to describe how Hippocrates, Diocles, and Celsus extracted arrow-heads, and perhaps even be acquainted with what Paulus Ægineta and sensible old Ambrose Paré wrote on the treatment of arrow wounds. But one hardly expects to find injuries of this kind treated of in modern works on Surgery, and we must own that we were considerably surprised when, on taking up, the other day, a "Report on Surgical Cases in the Army," published by the Government of a country which is the nursery and home, if not the very cradle, of the rifle and the six-shooter, we lighted on a report on arrow wounds.

This report, which was issued by the "War Department, Surgeon-General's Office, Washington, 1871," is extremely interesting, and forces us to have a much higher respect for the bow as a weapon of war, even in the hands of Indians and against rifle-armed soldiers, than we could have entertained before reading it. Looking at the steel-headed arrows of our ancestors, it is easy to imagine that the long-bow, in the hands of the English archer, was a most effective weapon, especially before "villanous saltpetre was digg'd out of the bowels of the harmless earth"; but who would expect to find Indian bows and arrows avail aught against the soldiers of the United States? Yet we find Dr. Bill remarking on "the rapidity with which the American Indians discharge their arrows"; and of the first seven cases of arrow wounds mentioned in this report five were fatal. Dr. Bill states that "it is exceptional to meet with a single wound; if one arrow takes effect, it is immediately followed by two or more others"; and this is well shown by the cases in the report—thus, "Private C. 2, 13th Infantry, received, May 24, 1868, while on herding duty, about half a mile from Camp Reeve, seven arrow wounds. One arrow entered the cavity through the eighth dorsal vertebra, and one through the ninth; three passed through the forearm, one between the fifth and sixth ribs on the right side, and one through the palmar surface of the right hand. Death was apparently instantaneous." Again—"N. C. received nine arrow wounds—one in the post-gluteal region, one in the left lung, one in the abdomen, one penetrating the humerus," and so on. The arrow in the gluteal region had penetrated ten inches and a half. The man died a few hours after admission to Hospital. Private C. D. S. received five arrow wounds, and was scalped. He died in a few hours from the wound inflicted by one of the arrows, which, piercing the cartilage at the junction of the first rib with the sternum, "had cut the edge of the right lung, and had inflicted a slight wound, one-eighth of an inch in length, in the descending vena cava," causing fatal hæmorrhage. And private J. S., a cavalry soldier, was wounded by three arrows, one of which, passing through the right lumbar region, "penetrated the abdominal cavity to a depth of about eight inches or more," and of this wound the man died the next day.

Then special reports are given of eight cases of arrow wounds of the head and neck; in five the cranial cavity was penetrated, and of these five patients four died. One case we will quote, to show the force with which the Indians can discharge their arrows. Private M. W., 4th Cavalry, was killed by Indians while on duty as one of a mail-stage guard. "The escort being attacked by a band of Comanches, this soldier was wounded by an iron-headed arrow, which entered the squamous portion of the left temporal bone, and penetrated the left cerebral hemisphere to a depth of an inch or more, causing intracranial bleeding, which was speedily fatal. The skull was punctured without fissuring. There was no splintering internally; the vitreous table was as cleanly divided as the outer table." It appears that some difference of opinion obtains as to the characters of the penetrating wounds of the skull by arrows. Dr. Bill believes that they are generally "characterised by a linear puncture of the outer table, corresponding to the size of the arrowhead, with a crack usually extending from either edge proportionate in length to the momentum of the arrow, while the inner table, struck by the arrow's point at a reduced velocity, is usually splintered and depressed." But it appears that the specimens in the Army Medical Museum "show both tables of the calvaria punctured, with little or no fissuring externally or internally. In all the specimens the arrowheads have been literally impacted, the vitreous table being penetrated as cleanly as the outer." Indeed, the reporter says that "the force with which arrows are projected by the Indians is so great that it has been estimated that the initial velocity of the missile nearly equals that of a musket-ball. At a short distance an arrow will perforate the larger bones without comminuting them, or causing a slight fissure only, resembling the effect of a pistol-ball fired through a pane of glass a few yards off." The report from which we quote gives seven special cases of arrow wounds of the chest, most of which were fatal; but there were "two remarkable instances of recovery after penetration of the pleural cavity by arrows." Wounds of the abdomen are, as might be expected, very fatal: of nine cases reported seven were mortal, "and in the two cases of recovery there was room for doubt whether the arrowhead penetrated the peritoneal sac." The Indians are well aware, it appears, of this great fatality of arrow wounds of the abdomen, and, according to Dr. Bill, they always aim at the umbilicus, so that "the Mexicans are accustomed, when fighting the Indians, to envelope the abdomen as the most vulnerable part in many folds of a blanket." One curious case is mentioned of a man who was accidentally wounded by an arrow, "which entered the back three inches to the right of the fifth lumbar vertebra, and emerged about two inches to the right of the ensiform cartilage," thus completely transfixing the body; but he recovered quickly and perfectly. In all, we are given reports of eighty-three cases of arrow wounds, of which "twenty-six, including nearly all in which the three great cavities or the larger bones or joints were involved, proved fatal;" but, the reporter remarks, "a greater fatality would be represented had more complete returns been made." And our Professional brethren are sometimes victims to the arrow as well as to the bullet, for the reporter adds—"for example, in some recent instances, the Surgeon's own name would be among those appearing in the

list of killed and wounded" had the returns been complete. Some of the engagements in which arrows were employed with deadly effect were by no means slight affairs, for, among several of the casualties of which the reporter could not find any return, one is mentioned in which a colonel of infantry and forty-nine soldiers were killed, "most of them by arrow wounds." It would appear that generally no particular difference exists between the war-arrow of the Indian and the arrow for the chase, except in one important point. We are told that, "in order to prevent the easy extraction of the arrowheads, those of the war-arrows are often only glued to the shaft, which glue, becoming softened from blood, etc., readily detaches the head from the shaft."

It is worth remarking that the reporter gives no support to the old and widespread belief in the poisoning of arrowheads. The Medical Museum contains many specimens of arrows which were believed by their collectors to be poisoned; but the reporter says, "repeated experiments that I have made, of inserting the points beneath the skin of small animals—as frogs, birds, and mice—have had negative results, the punctures healing readily, and the animals surviving. The Indians may dip their arrowheads in rattlesnake venom or the decayed livers of animals, as is commonly stated, but it is more than doubtful if the arrows thereby become poisonous."

It is to be observed that the report nowhere mentions the distance at which the arrows which proved so deadly were discharged; but, seeing how effective and fatal their fire can be, we can hardly wonder that Dr. Bill, who has seen so much of it, should "suggest the employment of archers with regular troops to pick off sentinels noiselessly," though we may agree in the observation that "he remains more strictly in his province as a Medical officer in advising a cuirass for soldiers employed in Indian hostilities."

Before quitting our subject we must add a word in admiration of the splendid way in which these reports of the American War Department are got up and issued. If this excellence is a result of Republicanism we are almost persuaded to become followers of Citizen Dilke.

THE WEEK.

TOPICS OF THE DAY.

A VERY large deputation of members of Parliament, accompanied by Mr. Curgenven, attended at the Home Office on Saturday last, to present memorials to the Home Secretary, signed by 87 Surgeons and Physicians of eminence in London, 279 Physicians and Surgeons of the towns where the Contagious Diseases Acts are in operation, and 2143 other members of the Medical Profession. The memorialists prayed the Government to leave the present Contagious Diseases Acts, as far as their main principles are concerned, unaltered. The weight and influence of the gentlemen forming the deputation are enough, we should think, to discourage a stronger man than Mr. Bruce from attempting to interfere, at the instance of the classes who oppose these Acts, with measures which already are said to have reduced venereal diseases in the towns where the Acts are in operation one-half. In promising to lay the matter before his colleagues, Mr. Bruce did all that could be expected from him; but we shall be surprised if any part of the Contagious Diseases Acts of 1866 and 1869 be repealed in the present session.

The meeting which was held under the presidency of the Archbishop of Canterbury on Tuesday last for the purpose of raising funds to wipe off the debt on King's College will, we hope, give a successful impetus to that work. King's College is the largest educational establishment in London in which, in addition to ancient and modern learning and science, the principles of the National Church are taught. It educates 900 adult students (including the Medical) and 450 boys. "*Sancte et sapienter*" is its motto, and we may hopefully believe that the inscription over its gate is not belied within its walls. On the whole it is perhaps the most successful attempt of modern times to unite dogmatic religious teaching with a free study of science and literature. But the history of its debt is a striking instance of the narrow insular prejudices of some of our religionists. The College was founded to oppose the "godless" University of London, now University College. This was at the time of the Roman Catholic Emancipation movement, and amongst the supporters of King's College were Sir Robert Peel and the Duke of Wellington, both of whom were in favour of Roman Catholic Emancipation. Party feeling ran very high on the matter, and amongst other results was a duel between the Iron Duke and the Earl of Winchelsea. Another result was that a portion of the Council and original supporters of King's College, who had promised large sums for its maintenance, on the plea that they had no confidence in the Duke and Sir Robert Peel broke their words, refused to pay their money, and left King's College £13,000 in debt. This specimen of Christian unity and fidelity was worthy the religious bigotry from which it emanated. We trust that the attempt to remove the debt will be successful. Not only is King's College one of the most useful and best managed of the London Medical Schools, but it is an admirable training-place for all kinds of work. Convinced as we are that society cannot exist without religious belief, we wish success to an institution which teaches the best system of morality, and the only historic faith (with the exception of the Jewish and the Mahomedan, the latter of which is a mongrel offshoot of Christianity) that the world possesses.

The case of Mr. Edmunds, the solicitor, of Newent, who was acquitted last week at the Central Criminal Court of a charge of manslaughter of his wife, is not a pleasant one in its Medical aspect. The main witnesses against Mr. Edmunds were a servant and his niece and Dr. Bass Smith, who had been called in at the time of Mrs. Edmunds's death, and had given a certificate to the effect that the death was due to natural causes. But we conceive that the circumstances brought out in the evidence are of a kind to demand investigation, inasmuch as Dr. Bass Smith is a Practitioner of Medicine registered under the Act of 1858.

We are glad to see that the Kensington Vestry have spontaneously raised the salary of their Medical Officer of Health, Dr. Dudfield, from £200 to £300 per annum. At the meeting at which this unusual piece of liberality was perpetrated, Mr. Bosanquet said that the difference between an efficient and a bad Medical Officer of Health was thousands of pounds in the ratepayers' pockets in favour of the former. We are glad to see that the schoolmaster is abroad, and we hope that the other metropolitan vestries will speedily follow the example set them by Kensington. We congratulate Dr. Dudfield on the appreciation shown of his services, and we still more congratulate the Vestry and inhabitants of Kensington on having secured them.

The *Times* Bengal correspondent, in his letter dated Calcutta, April 19, which appeared in the *Times* of Monday last, writes:

"Calcutta and the neighbourhood are suffering very severely from a disease only known previously to the older Medical Practitioners—the 'dengue fever,' or 'red,' or 'dandy fever.' It is not dangerous to life, but the pain in the joints is said to be dreadful, and a rash like that of scarlet fever appears. The pain is described as somewhat of the nature of an acute rheumatism. The fever appears to be well known in other tropical countries, but has not been remarked in India, save in a very few cases, since 1853. A large number of people have been attacked by it in Calcutta, and there is a general dread of it.

"A very severe form of cholera is reported to have broken out in the pretty French settlement at Chandernagore, about seventeen miles (I write from memory) from Calcutta. The troops, and especially coolies, returning from the Looshai expedition have suffered severely from cholera."

Dengue seems to be a fever which combines the characters of an exanthematous with those of a rheumatic fever—in fact, its nosological name is *scarlatina rheumatica*. It has been described by several Indian and American Physicians. It has prevailed in various parts of India, in the Southern States of America, and even in New York, and in the West Indies. The disease is characterised by a sudden attack of pain and swelling of the joints, succeeded by high temperature and intense pain in the head and eyeballs. Swellings of the lymphatic glands and testicles are common. There is then a distinct remission, which is afterwards followed by an eruption that appears on the fifth, sixth, or seventh day, and which sometimes resembles the rash of scarlatina, sometimes that of measles. The disease has never been observed in England, although a rheumatic form of scarlatina is not very uncommon here.

Mr. Moore, the Curator of the Gardens of the Apothecaries' Society at Chelsea, will deliver a course of lectures on botany this year, under the auspices of the Master and Wardens of the Society. The lectures, six in number, will be delivered on Wednesday and Saturday afternoons, commencing on Saturday, May 25. Medical Practitioners and registered Medical students can obtain cards of admission to the lectures on application at the Hall.

DR. BALLARD AT WALSALL.—THE DOUBLE HOSPITAL FUNCTIONARIES UNDER EXISTING SANITARY LAW.

We learn from the *Midland Counties Express* that there were no deaths from small-pox last week in Wolverhampton, and that the vaccination of babies is being carried on with a most creditable vigour and success. For instance, out of 451 children born in Willenhall and Wednesfield during the last four months of 1871, 391 had been vaccinated, three were found insusceptible, seven had removed, forty-five died, and the remaining five were all in hand. If registered children are looked after thus, there will soon be no reason to complain of the general state of vaccination.

The small-pox is still very prevalent at Walsall, which has been, in consequence, visited by Dr. Ballard on behalf of the Local Government Board. The Walsall local authority had written to the Local Government Board to inquire whether they, as sewer authority (*i.e.*, local authority), being bound to provide Hospital accommodation during epidemics by the Sanitary Act of 1866, might enter into a contract for this purpose with the guardians, who have, of course, some Hospital attached to their workhouse. The answer is important:—

"You inquire whether they will sanction an arrangement proposed to be entered into by the Guardians of the Walsall Union with the Council of the Borough of Walsall, acting as sewer authority, by which the Guardians may be enabled to receive and treat in the temporary Small-pox Hospital at the workhouse as many non-pauper patients as could be accommodated, on payment of a weekly sum for their maintenance. I am directed to state that the Board are of opinion that the Guardians, even with the Board's sanction, cannot legally enter into such an arrangement as that proposed. The Board have, however, introduced a provision into the Public Health Bill, now before Parliament, for the purpose of enabling Guardians to receive pay patients into the infectious wards of the workhouse.

At a meeting of the Guardians, the following uncomplimentary picture is drawn by Mr. Palmer, one of the vaccinators:—

"What is the state of Walsall? Filthy accumulations prevail, often by the dwellings of the miserably poor. Their own uncleanliness I fear will be a thing of permanence. Were the middens closely inspected much would in a short time be gained. Till the last week there were tenements in Navigation-street where they had no privies fit for use. For months they received excrements in the houses. All the ash-pits where I reside in Bridgeman-place are an existing nuisance, full to repletion. Where can be the service of small-pox return papers and appointment of additional vaccinators? Leave the Medical men their harvest of revaccinations. Let tumbrels and scavengers be actively employed and this malady and the advent of malignant fever will be prevented."

Dr. Ballard then laid before the Guardians the following practical summary of their duties, which may be usefully applied elsewhere:—

"It would be advisable for the Board to issue a placard calling attention to the fact that small-pox was amongst them, stating the hours when the vaccinator would attend to special cases, and advising the population to be revaccinated. It became the duty of the Guardians—who were the nuisance authorities for such parts of the district as were not under the jurisdiction of Local Boards, to use measures for preventing the spread of the disease. In such districts it was their duty to exercise the power given to them under the Sanitary Act of 1866, more especially that contained in the 22nd, 29th, and 37th and 39th sections of that Act. It was the duty of the Guardians, in districts for which they were the nuisance authorities, to serve upon the owners or occupiers of houses notices to cleanse and disinfect within twenty-four hours; and in the event of the work not being done within that time the Board had power to do the work and charge the owner or occupier with the costs incurred. In such cases, where the owners or occupiers were too poor to do the work, the Board had power to pay the costs of performing the same. The Act also gave them power to erect a place where infected clothing might be disinfected. He thought that the Guardians did not require a building for that purpose, as the clothing might be disinfected in those houses where the inmates had suffered from small-pox. The 24th section gave them power to provide a vehicle for the conveyance of persons suffering from infectious diseases. He saw that the Guardians had provided a vehicle, but he was bound to tell them that it was not safe to convey small-pox cases in. It was possible that some day when they had a very bad case to remove they would find the patient dead before he reached his destination, for persons suffering from small-pox often died in transition. The vehicle ought to be so constructed that the occupant could lie down whilst being conveyed. The Guardians were further empowered to proceed against persons exposing themselves in the streets whilst suffering from the disease, and to prosecute persons for dealing with infected clothing."

ANOMALIES IN THE VACCINATION ACT.

Vaccination has sufficient difficulties to contend with in the ignorance and prejudice of many foolish and unreflecting persons. Nothing is more difficult to eradicate than such prejudices. Education is not always sufficient to effect this. We much regret, then, that any mere technical objections should be taken to the Vaccination Act. The following proceedings are undoubtedly strictly legal, but are they wise or equitable? What can the public think of them? Their effects must be inimical to the progress of vaccination, particularly in the rural districts. At the West Riding Court, last week, Thos. Colbeck, miner, Milnthorp, was charged with neglecting within three months of the birth of his child to take it to a properly qualified Practitioner to have it vaccinated. Mr. Roberts, the Vaccination Officer for the Wakefield Union, supported the summons. The case was a singular one. The child had been vaccinated by Mr. J. Newton, an unqualified assistant of Dr. Wade's, who resides in the district, and the certificate had been signed by him "*pro* W. S. Wade." The legal adviser of the Local Government Board had refused to receive the certificates as valid, hence the present proceedings. Mr. Roberts said he had given notice to Mr. Newton to discontinue the practice, but he refused to do so. The Chairman said if Dr. Wade had signed it, it would have been right. Mr. Roberts remarked that if the certificate had been signed by Dr. Wade he would have had no objections. He had registered many signed by Dr. Wade. The Chairman asked if there was no power of delegation. Mr. Banks replied in the negative. If that were so a Medical Practitioner might scatter himself all over the country. Mr. Wainwright remarked that Mr. Newton was the joint agent of Dr. Wade. Mr. Banks replied that no person could certify that there had been successful vaccination unless he had been duly registered; no other person had a right to sign the certificate. The Chairman asked, As there are other cases would Mr. Roberts be satisfied with a

penalty in one case? Mr. Roberts had no objection to withdraw the other cases providing that the costs were paid. He only wanted the law to be carried out, and had no feeling in the matter. The Chairman said they would impose a penalty of 2s. 6d. in Colbeck's case, and 9s. costs. In the other cases there would be 9s. costs in each case to pay, amounting altogether to 38s. 6d. We do not hesitate to say that these proceedings will do much injury to the cause of vaccination.

ARMY MEDICAL DEPARTMENT.

We are happy to hear that the sluggish stream in which the senior members of the Army Medical Service have for so long been jogging along to their own great apparent contentment, but to the fretting and fuming of the obstructed masses behind them, is likely soon to be stirred into unwonted activity and life by the sudden descent of the good angel "Retirement," bearing "Promotion" on her wings. Such visits have latterly been so few and far between that the approaching event well deserves the appellation of angelic. Inspectors-General Lawson, Paynter, and Dane are shortly about to retire; the last-named officer, we hear, is likely to get the good service pension of £100 per annum. Inspector-General Mouat is now on his homeward journey from Bombay, in delicate health, but his retirement is not expected to be immediately necessary in consequence. The promotions among the Deputy Inspectors-General will probably be strictly according to seniority, in which case Drs. J. Fraser, C.B., J. H. Ker Innes, C.B., and Professor Longmore, C.B., will be the first on the list. Deputy Inspectors-General O'Flaherty, C.B., and Balfour are also mentioned as being about to be promoted. It is expected that the promotions of Professor Longmore and of Dr. Balfour will be special, and that both these gentlemen will be retained in their present respective appointments. We should have been glad to have been able to include the name of Dr. C. A. Gordon, C.B., among the new Inspectors-General, and trust that before very long we may have the pleasure of recording his promotion as a recognition, late though it may be, of his eminent services in India, and lately as one of the Medical Commissioners sent by our Government into Paris during the siege. Inspector-General Muir, C.B., has arrived in London to assume his duties as head of the Sanitary Branch of the Army Medical Department.

UNIVERSITY OF LONDON.—PRESENTATION-DAY.

On Wednesday afternoon, May 15, the annual meeting of the Senate and graduates and their friends took place, under the presidency of the Right Honourable Earl Granville, K.G., the Chancellor. The graduates who had passed in the several faculties during the preceding year, and the undergraduates who had obtained exhibitions, prizes, and medals, were presented to the Chancellor to receive their diplomas and distinctions. The Registrar, Dr. Carpenter, read a report of every examination held during the year. After congratulating the successful candidates, the Chancellor, in a brief speech, alluded in a graceful and feeling manner to the loss the University had sustained by the death of Mr. Grote, the late Vice-Chancellor. The Right Hon. Robert Lowe, the Member for the University, next addressed the meeting at some length, touching upon several points of importance to the University. He strongly advocated such a modification in the matriculation examination as would open a University career to students without requiring of them any knowledge of Greek. This proposition has been before the Annual Committee of Convocation for some time, although at present nothing definite is settled upon; but the arguments urged in its favour by Mr. Lowe express views held by a large number of the members of Convocation. In contrasting the inducements offered to students by the Universities of Oxford and Cambridge with those held out by the University of London, Mr. Lowe remarked that in the former the degrees were not nearly so difficult to attain, and that throughout and after the course necessary for their attainment handsome prizes and fellowships were within the reach of diligent men; but that at London, where the degrees were more difficult to be gained, there was but scanty provision for remunerating or continuing hard intellectual work. Although Government could not do more to increase the number or value of the scholarships, Mr. Lowe threw out the hope that some of those rich men—of whom there are many in this metropolis—having money to give away, and wanting a good object upon which to bestow it, would see this want in the University as he saw it, and leave some of their wealth to provide for it. We thoroughly endorse this good wish.

DR. HILL AND THE ST. PANCRAS GUARDIANS.

How can the affairs of a large parish like St. Pancras be conducted properly when vestrymen are apparently totally ignorant of the law, and set at defiance the opinions of their own legal advisers? The course pursued by the guardians of St. Pancras with respect to Dr. Hill is really deplorable, exemplifying as it does a degree of ignorance and obstinacy which can scarcely be surpassed. It will be remembered that Dr. Hill had informed the Board that he should be contravening an Act of Parliament if he did not make post-mortem examinations on the order of the coroner. The guardians doubted this, and applied to their own solicitor for advice. The opinion of this gentleman was laid before the Board at their last meeting, and was to the following effect: that, according to the terms of 6 and 7 William IV., cap. 89, sec. 5 and 6, the Medical Officer was compelled to attend coroners' inquests, and it was his duty, should the coroner require him, to make a post-mortem examination in cases where he had been the last Medical Practitioner in attendance upon the deceased. The coroner had only the power to call in another Medical Practitioner when he suspected that the attending Medical Officer had not exercised proper Medical skill. We do not place implicit faith in this opinion, which in one respect is certainly erroneous. The coroner has the power to summon any Medical witness he pleases, provided the witness be properly qualified. But if the solicitor was in error, what are we to think of one of the guardians, who said that there was no law in the land that could compel a man to make a post-mortem examination unless he wished to do it? We refer the sapient guardian to the Medical Witnesses Act. Of course Mr. Watkins "condemned in strong terms the course hitherto pursued by the Medical Officer." This is the present condition of the "happy family."

SANITARY KNOWLEDGE OF MEDICAL PRACTITIONERS.

How far the Medical gentlemen of Worcester are open to the reflections of a member of their Town Council we cannot say, but strongly suspect Mr. Bozward thinks he "knows more than other people." Here is his dictum respecting the city of Worcester, its Medical citizens, and the hygienic condition of the city:—

"At the quarterly meeting of the Worcester Town Council last week, Mr. Bozward, a Councillor, speaking on the proposed appointment of a Government officer of health and sanitary inspectors, said he did not think that Medical gentlemen were the best judges on sanitary matters. He did not think that the present system of drainage of the city was calculated to promote the public health. He believed it had not been shown yet that even in that city the Medical Profession had been aware of the dangerous character of the present system of sewerage, the want of ventilation, and the excessive danger of sewer gases finding their way into people's houses and poisoning the inmates. Mr. Bozward added, that twenty years' experience of the drainage of that city and the opinions of the Medical gentlemen thereupon, showed that the Medical Profession were not sufficiently well up in sanitary matters as to justify that Council in spending the ratepayers' money in appointing a public Medical Officer of Health."

OXFORD SCHOOL OF NATURAL SCIENCE.

THE Board of Studies in Natural Science at Oxford have just issued a series of instructions as to the range of the subjects included in each examination. We are bound to say that if fairly acted up to, which we have not the slightest doubt will be the case, this examination will speedily attain to an eminence, which in the meantime is highly desirable, as a good ordinary science degree. Turning to biology as the subject with which we are most immediately concerned, we are tempted to make certain remarks, especially with regard to the books recommended. As to general anatomy and histology, we miss certainly the best book we know for the student—viz., Frey's "Histologie." This, as translated into French by Ranvier, is certainly a readily accessible and most useful work on the subject. So, too, for comparative histology, Leydig's is about the best book, and it is not mentioned. A book well worth referring to in comparative anatomy—Oscar Schmidt's—is not given. Hermann's "Handbuch der Biologie" is a book we do not know —if in existence. Hermann's "Grunedins der Physiologie" is well known, and deservedly so. Vierordt's "Physiology" is certainly better worth studying than some here mentioned. Though physiological chemistry is included in the list of subjects, there is no reference to the admirable works of Kühne or Hoppe-Seyler. On the whole the list wants revision.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

Is there any class of the community less provident than our brethren? We doubt it. There are, no doubt, many causes for the poverty in which many die. We are compelled to "keep up an appearance," occasionally to live at "a going point," and to leave those who are near and dear to us in poverty. We say "compelled," but it is not so; a little foresight, a little providence, would save at least the last and the worst of the miseries. There is a society in London, well known, rich, generous, and giving its bounty like the spring of Hoadly,

"That was scarcely heard or seen to flow."

And for two guineas a year—little enough as a premium for such an assurance—a man may obtain for his wife and children a yearly allowance after his death, which, if not sufficient "for all things," keeps them at least in comfort. The poorest amongst us can hardly say he cannot afford such a payment; and yet in this great metropolis and its suburbs, numbering some thousands of Practitioners, there are but 411 members, being a decrease of eighteen on the previous year. The report of the Society, as read at the annual meeting held last week, was as follows:—

"Receipts £2936; grants £2600; the expenses are £250—leaving a balance in favour of the Society of £83. During the year nine new members had been elected, seventeen members had died, ten had resigned or ceased to be members. Four widows and seven children had been added to the list of recipients of grants, four widows and fourteen children had died or become ineligible for relief. The numbers on the books at the present time are fifty-five widows and forty-three children."

We earnestly urge upon our brethren to join this excellent Society, and upon those who can afford it to contribute liberally to its funds. If the curtain could be drawn which shrouds the forms of many of the recipients of the Society's donations the surprise would be great, indeed, to see that some of them had once moved in the highest ranks of the Profession.

HEALTH OF LIVERPOOL.

A GREAT many cases of small-pox are being introduced into Liverpool by emigrants. Within five days of last week twelve patients suffering from it arrived in two vessels from New York, and on Thursday, the 9th inst., two German emigrants, ill of the same disease, were received into the parish Hospital. Dr. Trench, in announcing these facts, warned the inhabitants of the town against any relaxation in vaccination and disinfection.

"THE LONDON HOSPITAL SCANDAL."

WE insert elsewhere a few words on this matter from the pen of one of the fairest and most judicially minded members of our Profession. If a scandal exist which affects the character of any man acting in a public capacity, it is of no use to complain of one of the later steps, but the whole thing *ab initio* should be laid bare to the judgment of those whose place it is to form a judgment. Three questions at least are involved. One is the alleged occurrence of an accident during a Surgical operation; and in this case the boldest rule is the wisest, and Liston's example might be usefully followed when he brought his well-known aneurism case before the Medico-Chirurgical Society. A second question is the duty of colleagues to each other in case of difference as to practice; and a third is the general efficiency of a Hospital as a place for the relief of the sick poor, and the duty or otherwise of Hospital officers to represent to the Committee any circumstances which may interfere with its efficacy. Every case must be judged on its own merits; and for this purpose we want the facts.

DR. MOUAT ON THE ANDAMAN ISLANDS.

THE inhabitants of Dublin had the opportunity during the past week of hearing two most interesting and instructive lectures on the Andaman Islands delivered, on the 9th and 10th inst., by Dr. F. J. Mouat, late Inspector-General of Prisons in Lower Bengal, and of at the same time contributing to the funds of the City of Dublin Hospital, on which the present epidemic of small-pox has made sad inroads. We regret to observe that neither thirst for information, a desire to contribute towards such a laudable object, nor even the presence of the Lord-Lieutenant and his "faëry queen," was sufficient to induce the citizens of Dublin to attend in such large numbers as might have been expected. The lectures were so fully reported in the Dublin papers that the absentees have had ample means of estimating the value of the information given by Dr. Mouat, though they can never by simple perusal compensate themselves for the loss they sustained in not having heard the lectures delivered in the vivacious and brilliant style now well known to the frequenters of many of the London societies.

UNIVERSITY COLLEGE HOSPITAL DINNER.

THE annual dinner in aid of the funds of this Hospital was held at Willis's rooms on Thursday, May 9, his Royal Highness Prince Arthur in the chair. The royal president was well supported, and fulfilled his duties in an exceedingly pleasing manner. His bearing—modest, yet dignified—was such as we rarely see in one so young, and clearly betokened the care with which he has been trained for his high estate. It is no part of our business to extol the merits of University College Hospital, though we may admire the singular good fortune it has had in gathering such a staff as it possesses, and to make a small Hospital of 150 beds one of the leading schools in the metropolis—certainly the one to which last year there was the largest number of entries. Altogether the dinner was a success, not the least happy incident in its course being an admirable speech from Sir William Jenner. A liberal list of subscriptions was announced in the course of the evening.

MM. FANO AND FERREOGOBI.

IN reference to the alleged deaths of these gentlemen, we have received a letter from our Paris correspondent, who says—

"Allow me to correct an error into which you have been led by the Paris journals, and which appeared in your editorial of the 11th inst., with respect to the deaths of MM. Fano and Ferreogobi, two well-known Surgeons, who had disappeared since the repression of the insurrection, and who are stated to have been among the victims who were summarily executed by the Versailles troops whilst they were endeavouring to protect a number of wounded insurgents near the Place St.

Sulpice, in the conflict of last year. Whether the above be true or not it is not for me to say, and we must only wait the result of the inquiry which you say has commenced into the matter; but what I can say, and vouch for, is that, whatever has become of M. Ferreogobi, M. Fano, the well-known Surgeon and *agréyé* of the Faculty, who is, besides, a distinguished oculist, is still alive, and there can be no doubt of the fact, for I saw him yesterday. It was a young Doctor of the name of Fanau who, it is said, was shot under the above painful circumstances, but as there were different versions of the affair published at the time, I shall not trouble you with them here."

SMALL-POX JOTTINGS.

Only one death during the past fortnight from small-pox was reported last week to the Mile-end Old Town Vestry; in Poplar it was on the increase.——In Kensington during the past month small-pox had been fatal to five persons, and the number of new cases was twenty-four.——In Lambeth the disease is still decreasing.——The Lords of the Admiralty have ordered that for the future all engineer students and shipwright's apprentices are to be revaccinated before they are entered upon the books of Chatham Dockyard.——The return from the Small-pox Hospital, Aberdeen, up to Monday shows—Total number of cases admitted since opening, 198; number of patients in Hospital, 21; total discharged recovered 144; total dead, 33.——The fatal cases of small-pox in London, which in the two previous weeks had been forty-one and sixty-two, declined last week to thirty-nine.——During the past fortnight there have been six deaths from small-pox in Chelsea. Dr. A. B. Barclay reports—"I have the best reason for believing that the case reported a fortnight ago as one of cerebro-spinal meningitis was one of undetected small-pox of the petechial kind. This is one of the most malignant forms in which the disease presents itself, and is almost invariably fatal before the small-pox vesicle shows itself. The immediate occurrence of another case of small-pox in the same house, and the detailed description of the case, leave no doubt in my mind as to its true character.——In the week ending Saturday, May 11, forty-seven deaths from small-pox were registered in Dublin. This is a decrease of ten on the number registered in the previous week.

PAROCHIAL MEDICAL OFFICERS IN SCOTLAND.

At a meeting last week of the Garioch and Northern Medical Association, it was unanimously resolved to petition Parliament in favour of that part of Mr. Craufurd's Bill relating to Medical relief—more especially Clauses 28 and 29—which would "assure to the Medical officers of parochial boards such a secure tenure of office as to render them more independent in their intelligent exertions for the good of the community, and place them in a position more consonant with the dignity and deserts of the Profession."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION, IRELAND.

The annual meeting of this important Association, which has already effected great good, will be held on Monday, June 3. We hope it will be numerously attended. The objects of the Association are known to our readers. We heartily commend them to our Irish brethren, who, if united and firm, can carry out, we believe, all that they contemplate doing.

FROM ABROAD.—CLINICAL INSTRUCTION AT VIENNA.

A letter from Dr. O'Connell in the *Boston Medical Journal* for April 4, describing the opportunities and circumstances of the Vienna Medical School, contains some observations of interest. First, as regards the patients. These, on account of the poverty of the lower classes, are enormous in number, supplying the clinical Professors with never-failing material; and the consequence is that they have to submit to what may be almost called a brutality of treatment that would not be tolerated here, and still less in the United States.

"They are compelled by necessity to avail themselves of Hospital treatment, and submit to what in America would be termed 'whatever indignities' the Professors choose to inflict upon them. Thus, in the lecture-room of Professor Hebra it is not an unusual occurrence for patients, stark naked, to be kept standing and shivering, on exhibition before the students, a half-hour at a time. Indeed, the length of time the patient is kept standing is not a matter of consideration at all; his feelings do not form any part of the case, and the Herr Professor lectures on until he is fully satisfied, however long it may take—the unresisting individual being required afterwards patiently to exhibit himself to the closer scrutiny of whoever may have the desire to examine him. At the lectures on syphilis the same freedom of exhibition is exercised on the patients, male and female. They are obliged to expose themselves in whatever attitude will show the disease to the best advantage, and none of them even suspect that they have the slightest right to object to the treatment—to the repeated inspection before students, or to being made continually the subjects of lectures. And so it is in every department of the Hospital. Even the pangs of labour are no protection to the poor female whose case can be made of any use for giving information to the student, or for illustrating any point of theory or practice referred to in former lectures. And this may, perhaps, indicate how little regard is likely to be paid to patients whose cases would naturally excite less sympathy."

After describing the almost unlimited facility which students have of visiting the Hospital when they will, by day or night, Dr. O'Connell refers to the special courses of lectures delivered in it, which render it so attractive to the foreign student and Practitioner.

"But the real value of Vienna to the American student, who, having graduated already, or having practised his Profession at home, comes here principally to refresh himself in studies already made, or to enable him to fill up deficiencies here and there, consists in the facilities which exist for taking *special courses* of lectures and instruction on any subject connected with Medicine. The regular Professors pass along in the even tenor of their way, lecturing day after day and semester after semester, in a routine manner, because this has become their regular business for life. Their duties are fixed; their salaries are, to a great extent, fixed too; retirement on a pension awaits the close of a life spent in teaching; and unless they are ambitious to acquire a reputation (which, by-the-bye, they have generally achieved, or have irretrievably failed to achieve, before they became Professors), there is no special incentive for exertion. *They* do not give special courses. Besides the Professors, however, there are two other classes of instructors who are permitted to avail themselves of the advantages of the Hospital, and who, being unprovided with salaries, find it convenient to strive for emolument and reputation at the same time by giving the special instruction—in short courses of from four to eight weeks—which makes Vienna an attraction to the foreigner. These are the *Docentes*, who are practically aspirants for Professorships, and the *Assistants* to the Professors.

"Thus it will be seen that of the three classes of instructors, those who are most prominent before the Medical Profession at large—those who have acquired a world-wide reputation already, perhaps, and who might be supposed to be the real foundation of the popularity in the Vienna school—have practically little to do with it. Their lectures are fashioned for students who are learning the elements, and who are required to study for years before graduating here, rather than for the graduate who has learned the elements already, and who wishes to acquire special advanced information in relation to particular facts. In illustration of this point it may not perhaps be improper to refer to some of the names of which Vienna is justly proud, and which may make my meaning clear. Taking, for instance, the subject of pathological anatomy, for the study of which, in spite of its immense amount of material, Vienna presents no facilities whatever, the name of Professor Rokitansky looms up, a power in itself. His reputation as a pathologist requires no mention from me. He has a large class made up, by compulsion, of those students who must submit to his examination before they can graduate; but his delivery, his mouthing of his words, is such that even the Germans have the greatest difficulty in guessing what he wishes to express, and as a lecturer he is far from being a success. The other instruction obtainable in this branch consists of short courses of superficial lectures given by his assistants, who, in common with the older assistants and Docentes, mark the distinction between their listeners by

charging foreigners an increased price. Thus the famous Professor Rokitansky cannot instruct well, and his subject is too deep for the superficial touch of his assistants. To a person already well informed there is, of course, ample opportunity here to see specimens of rare interest every day; but to the beginner it is difficult to make any progress. Again, another name that is known to fame—Professor Hebra. His lectures are very amusing and very entertaining, and no one can question his ability and knowledge; but his teachings are rambling and unsystematic, and the eagerness with which the special courses delivered by Docentes are sought for, for the purpose of learning to diagnosticate, &c., indicates how his well-deserved reputation compares with his value as a teacher. And, not to multiply examples, I may say also, in reference to Professor Braun, that there is no method or system in his teaching of obstetrics. Of course there can be no question of his thorough acquaintance with his subject, but his lectures are rambling and wordy; and were it not that he uses the material at his command so freely, and is ready to grant the students any privileges of examination or observation they wish for, there would be little that he says worth transcribing. He is very popular, however, and his class is always large, because the students who wish to graduate are obliged to take his course; and for all others the taking a ticket for his lectures is a necessary preliminary to the free use of the parturient ward as 'Practikant.'

"From this it will be seen that the special advantages of Vienna do not consist in its possession of instructors who are already known to fame—of men whose reputation is world-wide. Docentes (of whom, perhaps, nobody outside Vienna has ever heard) and Professors' Assistants (persons of no definite position as men of science) are the individuals who make it attractive, not so much from their ability as from the fact that they are permitted to use the patients and material of the Hospital for illustrating their special courses of lectures, and because they are permitted to deliver lectures on particular subjects with which they have made themselves familiar. Does this statement of facts suggest anything in relation to what might be done in Boston?"

In reply to this query, which is obviously of much more general application, Dr. O'Connell expresses his conviction that, while eschewing the abusive mode of dealing with patients practised in Vienna, a system analogous to that carried out there by the agency of Docentes and Professors' Assistants might be easily organised, and would prove highly serviceable.

PARLIAMENTARY—GOVERNMENT LICENSING BILL—CONTAGIOUS DISEASES ACTS—PUBLIC HEALTH BILL.

On Friday, May 10, the Government Licensing Bill passed through Committee in the House of Lords.

On Monday, in the House of Commons,

Sir J. Pakington said that, having had the honour of attending at the Home Office on Saturday, with a very large deputation of members of Parliament, to present memorials, numerously signed by Medical men in different parts of England, and praying that the principle of the Contagious Diseases Acts might be maintained, he wished to ask the Home Secretary whether he would lay on the table the memorials with names and other particulars.

Mr. Bruce said that perhaps his right hon. friend would move for their production.

Lord E. Cecil asked whether there was any chance of the Public Health Bill coming on that night, and, if not, for what object it appeared on the notice paper.

Mr. Stansfeld said there was no chance of its being brought on that night.

Lord E. Cecil: The right hon. gentleman has not answered my second question.

The House adjourned until Monday, the 27th inst.

PREDICTION OF THE ERUPTION OF VESUVIUS.—M. Silbermann addressed a letter to the President of the Académie des Sciences, which was dated Saturday evening, May 4, and forwarded by post. In this he announced that on Monday morning, May 6, an eruption of Vesuvius, more violent than those which had preceded it, would take place. In the letter he detailed the atmospheric conditions which induced him to predict the greater violence of the eruption then to take place.

"THE LONDON HOSPITAL SCANDAL."

(*From a Correspondent.*)

THE recent painful discussions epitomised under the title of "The London Hospital Scandal" raise several questions of a grave public, Professional, and personal character. It is very easy to leap to a hasty decision, as one of our contemporaries, following its natural instinct, has done; but it must be obvious to everyone who has paid ever so little attention to the discussion, that the most important part of the case has not yet been made known, and that it is at present impossible to pass a satisfactory judgment even upon a part of it. The case as it at present stands appears to be as follows:—Circumstances are alleged to have occurred at the Hospital affecting one of the Surgeons, which a colleague felt it to be his duty to communicate to the Chairman of the House Committee. We do not know what those circumstances are; that is, we know them only by vague report, not by precise evidence. Without knowing these circumstances, and therefore, of course, without knowing the nature and extent of the grounds which impelled his colleague to take so grave a step, he has been heartily abused on the somewhat rash assumption that no misconduct—nothing, in fact—can justify one member of a staff from making a representation on the subject to the lay authorities except upon formal consultation with his colleagues. It may be admitted, *in limine*, that such consultation is desirable as a general principle, and probably Mr. Maunder himself will admit that it would have been as well even in this case, with all its exceptional characters, to have adopted this course. But it would be quite an error to suppose that Mr. Maunder stood alone amongst his colleagues in the view which he took. He was the man who acted; but others, and not the least weighty of the staff, felt and feel that he was justified in what he did.

Whether Mr. Maunder be right or wrong on this point is, however, really beside the question. It is a false issue ingeniously raised to divert attention from the graver questions which the public and the Profession are concerned to settle. If the Medical Profession were to accept the proposition that under no circumstances is a member of a Hospital staff to make any representation affecting a colleague, without previous formal deliberation with the staff as a whole, to the governing body, the inevitable result would be that all confidence would be lost between the governing body and the staff; and this means that the present cordial relations between the Medical Profession and the public would sustain the rudest shock. The staff of a Hospital would come to be looked upon as members of a trades union, acting upon the narrowest rules of class interest—as setting themselves in antagonism with the rest of the community. To taboo a man who refuses to enter into a conspiracy of this kind is a thing that can never happen in the Medical Profession, whose just influence for good depends so much upon the unselfish relations it possesses with all classes of the community. The folly of condemning such conduct as unprofessional is only equalled by the absurdity of another proposition, emanating, as might be expected, from the same source—namely, that every individual member of a staff must hold his tongue if the senior Surgeon does not choose to speak.

We have adverted to these points in the discussion because they are those which have been most pertinaciously kept before the Profession. But it must be abundantly clear to everyone that the real question, that upon which the subsidiary ones have been grafted, has only been superficially touched. It must, we venture to think, be clear to Mr. Rivington and his friends that he does not do himself justice, even if he succeed in attaching odium to Mr. Maunder for bringing his conduct before the body under which they both hold office in an irregular manner. When things have gone so far they must go farther. Neither the public nor the Profession can be satisfied with matters as they now stand. The case must be investigated calmly and fairly before a competent tribunal. It is to the interest not less of Mr. Rivington than of Mr. Maunder, as it certainly is to the interest of the London Hospital, that a complete and authentic statement of facts should be substituted as early as possible for the vague, and therefore damaging, rumours, and the painful and useless recriminations now filling the air.

THE FIRST REPORT OF THE LOCAL GOVERNMENT BOARD.

The Local Government Board was only constituted on August 19 last, but has managed to make of its proceedings during the short period which has since elapsed a blue-book of startling dimensions. This is, in fact, a "three-headed monster," and comprises, in addition to the usual report of the Poor-law Board, the reports of Mr. Tom Taylor on the working of the Local Government Act, etc., and of Mr. Simon on the Public Health. There are visible distinct signs of *imperia in imperio*, inseparable, it may be assumed, from a department in a transition state. No doubt the fusion will be more complete before the publication of the next report. To us, the subdivision is to a certain extent useful, as it renders it possible to deal the more readily with each branch of administration.

Turning first to the Poor-law branch, we find that even under administrators of opposite political views, Mr. Gathorne Hardy's plans for the amelioration of the condition of the sick poor have not been abandoned. "Continued progress," says the Report, "has been made during the past year in providing in the metropolis separate accommodation for the sick." Thus, at Bethnal-green a new wing to the workhouse brings the total indoor accommodation up to 1562; at Camberwell a separate Infirmary for 186 patients has been planned; at Chelsea a site has been secured; at Fulham new wings to the existing Infirmary are in course of erection; in St. George's, Hanover-square, the increase is less; in St. George's-in-the-East a separate Infirmary has been erected and is certified for 257 inmates.

The additional infirm wards at St. Luke's in the Holborn Union, on the same principle as those which have given so much satisfaction at St. Marylebone, were ready for occupation on June 1, 1871, and this workhouse, inclusive of these wards, is now fitted to receive 898 sick poor.

The Guardians of Islington, it appears, whose workhouse was given over to the Managers of the Metropolitan Asylum District for Convalescents from Small-pox from March 13 to October 14, 1871, now propose to utilise its site for a dispensary relief office and outdoor labour yard. For their sick, as we understand, though that is not stated in this Report, they have ample space in their new workhouse at Upper Holloway. At Kensington, Shoreditch, St. Saviour's, and Woolwich new infirmary wards are either completed or in course of construction; but the guardians of the Saint Olave's Union appear to have successfully resisted the efforts of the old and new Central Boards to bring them up to the mark of modern requirements. In speaking of the wants of this union the Report is almost plaintive. An infirmary is wanted, and should be built; or is not wanted, and should be allowed to pass out of mind, and out of the annual reports.

Since the last Report a sick asylum has been opened for 586 patients of the Poplar and Stepney Unions, the guardians of which are thus enabled to devote their workhouses, the former entirely to able-bodied poor, and the latter to the aged and infirm of both unions. The Poplar guardians, availing themselves of Section 50 of the Metropolitan Poor Act, 1867, are enabled to aid other unions and parishes in dealing with their able-bodied, and in carrying out the workhouse test—notably those of St. George's and St. Marylebone, who "have already availed themselves of the opportunity thus afforded them of separating some of the most troublesome of that class from the other inmates of their workhouses. The result has been that very few have accepted the offer of relief on those terms, and those who have done so have almost immediately taken their discharge."

The Report adverts to the results of an interesting experiment which was one of the results of the Metropolitan Poor Act—the placing of pauper boys in a ship instead of in a district school on shore. The ship used for this purpose has been lent by the Lords of the Admiralty, and is moored off Grays, in Essex. The Report says—"We have recently assented to a proposal on the part of the managers to receive into the ship boys from unions and parishes not situated within the metropolis. We have also assented to the purchase by the managers of a small sailing tender at a cost not exceeding 500*l.*, which will convey all stores and water required for the training ship, hitherto the cause of very considerable expenditure for lighterage, and which will, it is anticipated, have a most beneficial effect upon the boys in accustoming them to the sea and in developing habits of practical seamanship."

The progress of Dispensaries in the metropolis must form the subject of our next examination of the Report.

REVIEWS.

Clinical Lectures on the Diseases of Women. By Sir James Y. Simpson, Bart. Edited by Alexander R. Simpson, M.D. Edinburgh: A. and C. Black. 1872.

[second notice.]

The larger portion of these Lectures having first appeared in our columns, it will be unnecessary for us to do more than emphatically declare our sense of their great merit, and to remind our readers of the large field of practice over which their teachings extend. The first lecture in the book, however, is reprinted from the volume of Simpson's "Obstetric Memoirs and Contributions," edited by Drs. Priestley and Storer. It is on the subject of the Diagnosis of the Diseases of Women. As it has been long in the hands of the Profession, it may be enough to observe that we know of no better introduction to the study of the diseases of the female reproductive organs than this lecture. The young Practitioner will find in it an account, and a rational one, of that long list of maladies which accompany and mark uterine disease, and which an older generation of teachers was content to ignore, which afforded the quacks their richest harvest, and were given up in despair or prescribed for, but rarely cured, by the legitimate Physician. The lectures which follow are on Vesico-Vaginal Fistula, and on Pelvic Cellulitis. The latter subject was one of Simpson's own. We do not mean by this that he was the first to describe the disease. In modern times it was first noticed by Marchal de Calvi, and amongst ourselves by Professors Doherty, of Galway, and Churchill, of Dublin; but Simpson's teaching and writings were amongst the first which directed Professional attention earnestly to the subject, and his clear instructions as to the Surgical treatment to be pursued render these lectures of the greatest practical value. Pelvic Peritonitis, Peri-uterine or Pelvic Hæmatocele, follow, and bear the same original stamp. In fact, the whole character of these lectures is sustained by the foundation they have in the personal observation and clinical work of the author. It is clear at every page that Sir James Simpson neither borrows from the work of others nor from his own imagination. The latter faculty, indeed, was not wanting; but it was never employed to invent, but only to illustrate.

Passing over four lectures on Cancer of the Uterus and Carcinoma of the Uterus and Mamma, we light on one on "Coccygodynia, and the Diseases and Deformities of the Coccyx." "Coccygodynia" was the term applied by Simpson to a painful affection of the coccyx, which he believed was caused by the action of the muscles attached to it—the glutei, levator ani, and sphincter. He proposed and performed an operation for the relief of this affection, which was the complete separation, by subcutaneous section with a tenotomy-knife, from the coccyx of the muscular and tendinous fibres that are in connexion with it. That this proceeding answered in some instances we have evidence in the cases related by Simpson. In others he acknowledged it failed, and in some of these he had recourse to the removal of a portion of the bone itself. We are not aware that these proceedings have been frequently repeated by others, but cases of severe pain referred to the coccyx are not very uncommon, and where other treatment has not succeeded, Simpson's operation might, we think, be tried. As to the manner in which the separation of the bone from the surrounding muscular and fibrous tissue relieves pain, we are not certain that Simpson's opinion is a correct one—in fact, he himself has suggested another explanation. He writes—"I would only add, in connexion with this point, that there is a leash of nerves lying all round the coccyx, and I once imagined that the relief obtained by isolation of the bone was due to section of these nervous cords." He goes on to say, however, that he thinks the explanation of pain from muscular action is the more probable, and that after the operation no more pain is experienced, simply because the parts are placed in a condition of absolute rest.

Passing over the lectures on Dysmenorrhœa, Closures and Contractions of the Vagina, Caruncles of the Urethra, Diseases of the Vulva, Surgical Fever, Phlegmasia Dolens—all of which contain a vast deal of original and thoughtful teaching—we come to two lectures on Spurious Pregnancy or Pseudocyesis. These lectures form a good specimen of Simpson's manner of treating a subject. He brings together all that he can find on it in ancient and modern authors, recounts cases of his own and such as have occurred within his knowledge, gives full, clear, and precise directions for making a diagnosis, and then,

recognising—in a condition which had been passed over as hysteria or delusion by nearly all modern scientific writers, and had no place in literature except as having furnished a butt for the ridicule of the coarse humourists of the last century—a substantive disease, proceeds to discuss its special pathology. In many of these cases the uterus and ovaries are affected by some form of ordinary disease, but more frequently there is no trace of uterine affection; these local affections, therefore, are to be regarded rather as coincidences than of the intimate nature of the malady. He then notices that spurious pregnancy has been observed in the lower animals. On this point he quotes Harvey, who pointed out, in his work on "Animal Generation," that "overfed bitches, which admit the dog without fecundation following, are nevertheless observed to be sluggish about the time they should have whelped, and to bark as they do when their time is at hand; also to filch away the whelps from another bitch, to tend and lick them, and also to fight fiercely for them. Others have milk—or colostrum, as it is called—in their teats, and are, moreover, subject to the diseases of those which have whelped," etc. Some modern observations confirming the occurrence of these symptoms in the lower animals are added. The clue obtained Simpson thus follows:—"When observed in the lower animals, spurious pregnancy has been remarked to occur within a certain period after the time of heat, and to be distinctly connected with that condition; so that in them it is most probably dependent on the physiological change or changes which are at that time set up in the uterus and ovaries. Menstruation in the human female, as you know, corresponds to the phenomenon of heat in the lower animals—in as far, at least, as the process of ovulation and the ripening of a Graafian vesicle is concerned; and I believe that the aggregate of symptoms which we class under the designation of spurious pregnancy in women is, in some way or other, dependent upon the changes which occur in the ovaries and in the uterus at the period of menstruation. When the irritation associated with the normal or physiological changes in these organs is somewhat excessive either in degree or in duration, and is repeated from month to month, the sympathetic phenomena excited at one period have not had time, in some instances, to subside before a new stimulus is supplied for their continuation by the recurrence of the menstrual molimen. True pregnancy occurs when the ovulum which escapes from the Graafian vesicle duly meets within the mother's body with male spermatozoa, and, as a consequence, a long nine months of local and constitutional phenomena immediately begins to be set up. But the same series of constitutional phenomena, at least, is set up in cases of pseudocyesis when an ovulum escapes, or a reproductive nisus occurs, without any male spermatozoa being present, these phenomena occasionally ending, as we have seen, at the usual extreme term of utero-gestation, in a simulated parturition, or in a kind of *Lucina sine fœtu*, just as in some cases, as among the unmarried, they commence by a kind of *Lucina sine concubitu*, to borrow the language of the old physiologists."

We cannot leave Sir James Simpson on this subject without reproducing from the fund of capital stories with which he used to spice his lectures the very good one of Dupuytren which occurs at page 381. He was consulted by a lady, who asked what was to be done in her case, as she had now been in the family-way for fourteen years The great Parisian Surgeon gave it as his opinion that, as the boy must be tolerably well grown by that time, the best thing that the lady could do was to swallow a tutor immediately, that his education might not be neglected.

The lectures on Fibroid Tumours, Polypi, Leucorrhœa, Chronic Metritis, Prolapsus Uteri, and Retroversion of the Uterus are amongst those that did not appear in our columns. Simpson was quite alive to the latest advances in the pathology of the diseases on which he treated. He recognised in fibroid tumour of the uterus an example of the myomata or muscle tumours; and on this he founded his treatment. He says—"The fibres, then, are simply those of ordinary connective tissue, and the nucleated fibre-cells are nothing more than the elements of involuntary muscle. But how does this alter our notions as to their curability? Why, knowing as we do that the great mass of muscular matter developed in the uterus during pregnancy gets almost entirely absorbed within six or seven weeks after delivery, we are led, from the very nature of the fibroid tumour, to entertain a hope of the possibility of its disappearing by absorption too." He believes that the spontaneous disappearance by absorption of these tumours is by no means uncommon, and gives instances of it; and he thinks that in bromide of potassium, continued for a long time, we have an agent of the greatest value in retarding the development and reducing the bulk of these growths. With regard to Surgical measures, gastrotomy and excision of the tumour through the abdominal walls is not recommended by him, although in one case he performed the operation. Enucleation and removal through the vagina he thinks may be tried in some of the cases of submucous tumour when the symptoms are urgent and demand interference. But in the case of large-sized tumours, the operation he affirms to be "attended with the utmost risk, from the great danger that there is of inflammation being set up in the large ragged excavation out of which the morbid mass has been dragged, and also from the likelihood of injury to the peritoneal surface if the tumour have involved much of the thickness of the walls. So that," he adds, "although I have seen one or two successful cases of the enucleation of fibroid tumours of considerable size, I regard it as an unjustifiable operation where the tumour is not already distinctly in process of descent, and I have become more and more inclined to restrict the operation to cases of tumours of small dimensions, when it may certainly be had recourse to with the most hopeful prospects." Removal of portions of the tumour is an operation he thinks of scarcely less risk from the chance of fatal inflammation.

We might continue our gleanings from these admirable volumes to a much greater extent, but we wish only to give our readers a sufficient knowledge of their contents to induce them to peruse them for themselves. We know of few sets of writings in modern Medicine of greater originality or interest, and whether we agree or disagree with the author on points of practice or observation, we cannot refuse the homage to his memory which his genius and industry combined demand.

NEW BOOKS, WITH SHORT CRITIQUES.

History of Medicine from the Earliest Ages to the commencement of the Nineteenth Century. By Robley Dunglison, M.D., LL.D., late Professor of the Institutes of Medicine, etc. Arranged and edited by Richard J. Dunglison, M.D. Philadelphia: Lindsay and Blakiston. 1872. Pp. 287.

*** Amongst the duties which devolved on the late Dr. Dunglison, as Professor of the Institutes of Medicine in the University of Virginia, was that of teaching "the history of the progress and theories of Medicine." Few branches of Medical knowledge, in our opinion, are more salutary, and few deserve better to be systematically and carefully taught. The students who attended Dr. Dunglison's lectures had advantages which their successors in the present day do not enjoy, and which this publication is intended to give them. In a short space it enables them to gather a pretty correct view of the state of Medicine amongst the ancient nations, and its progress to the present day. It does what a book of its size can do, and may serve as a useful index to the student who desires to push his researches further into the history and development of any particular point. We must add that Dr. Richard J. Dunglison would have raised a monument more worthy of his distinguished father if he could have found time for a more thorough revision and emendation of the text, and verification of quotations and references. We should like him to verify "the axiom" of Hippocrates, said to be "contained in the sixth book of the Epidemics"—"*Nature is the first of Physicians.*" We should like a reference, too, to the original passage of Galen on which Dr. Dunglison founds the statement—"It is presumable that his practice at Rome was not very extensive, as he mentions having gone twice a day into the country to visit one of his servants, who was labouring under ophthalmia." As it is, there is scarcely a single reference throughout the book; doubtless they did not form part of the original plan, but Dr. Richard Dunglison, in erecting this literary monument to his father, would have done well to make it complete. The account of Hippocrates shows how difficult it is to discriminate which are the genuine works of the Father of Physic; but the author writes in the true Hippocratic spirit, and winds up with practical remarks on the necessity of observation and the distrust of all sects and systems.

Introduction to the Study of Biology. By H. Alleyne Nicholson, M.D., D.Sc., etc., etc., Professor of Natural History and Botany in University College, Toronto. Edinburgh and London: Blackwood. 1872. Pp. 162.

*** A work based upon the introduction to the author's "Manual of Zoology," and intended as an elementary work for the student of Biology. It begins with the differences between

dead and living bodies, the general phenomena of life, and conditions necessary for its manifestation; next the differences between animals and plants; then the differences between various organisms, the doctrine of form, and the doctrine of function, with a chapter on the mixed questions of analogy, homology, homogeny, homeplasy, and homomorphism—a chapter which there is no need to advise the student to skip for the present, and to indulge largely in the knowledge of *what* things are, before attempting metaphysical conceptions of *how* they come to be. Then we have a chapter on the principles of classification, followed by chapters on the elementary chemistry and physiology of living beings, which lead to concluding chapters on the "origin of species," and the relations of living beings to time and space. It will thus be seen that Dr. Nicholson's work covers a large ground of fact and speculation. The desideratum in such a work for beginners is that the language shall be clear, and the sentences short. The author, whilst admitting that the term "vital force" has been largely abused, still holds, with Beale, that the term is a necessity of science, to express the cause of changes which chemistry and physics cannot solve.

Address delivered at the Anniversary Meeting of the Geological Society of London on February 16, 1872. By Joseph Prestwich, F.R.S., etc., President of the Society. London: Taylor and Francis. 1872. Pp. 66.

*** We have already quoted largely from this excellent address, in reference to the contamination of water-bearing strata by sewage; but we should be doing the author an injustice were we to omit to say that whether for literary skill, for good taste, or for the amount of solid information conveyed, this discourse takes the highest rank amongst compositions of its class. We may refer to the obituary notices of Murchison, Lonsdale, Yates, Herschel, Grote, Robert Chambers, Harcourt, Tate, Mushet, Meeson, and Lortet, and amongst them Rose, of Swaffham, an old and much-honoured member of our own Profession. The passages on the water-bearing strata of London, on well contamination, and on the extent of the English coal-beds ought to receive due attention from politicians and sanitarians.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, May 7, 1872.

The "Father" of French Medical Literature—Professor Broca on the Brain—New Antiseptic—M. Roger on Bronchiectasis and Diphtheria—"Surgical Constitution" of Hospital Air—Doctresses—Castiaux's Aspirator.

Dr. Caffe, the principal editor of the *Journal des Connaissances Médicales*, who from his age is styled the Father of the Medical Press in Paris, has just recovered from a severe attack of illness, and resumed his weekly *soirées*. They are more of a literary and scientific than of a strictly social character, and are the general *rendezvous* of the representatives of the different professions.

On Wednesday last the first of a series of monthly meetings, recently organised by the medical press of Paris, took place at Dr. Caffe's, the object of which is to establish a proper understanding between its members and to guard the interest of the Profession at large. After a long discussion as to the best manner of carrying out these desirable ends, the following resolution was unanimously adopted:—"That a committee of three members of the medical press, with Dr. Caffe as President, be appointed to organise a 'Conseil de Famille,' composed of principal editors of the medical journals." These *réunions* will take place alternately on the first of each month, at the editors' private residences, and are confined to the editors and their staff, who, however, have the privilege of inviting even occasional contributors.

Professor Broca has begun a course of lectures on Craniology, which is open to the public as well as to the members of the Profession. Craniology, he said, was the most important branch of anthropology, as it not only treated of the structure and uses of the cranium, but of the brain, by which man is distinguished from the brute creation and even from the monkey, his nearest congener. It was not only by the weight of the brain that man was distinguishable from the other animals, but by the number and form of its convolutions, which were greater in number and much more developed in man. The lowest weight ever known of the human brain was found in a male adult to be a little over 1000 grammes, or about 33 ounces, and 860 grammes in a female savage—both however being considerably greater than the weight of the brain in the adult male gorilla, which amounts to only 560 grammes. These characters, he said, not only distinguished man from the other animals, but they distinguished the different races; and in this respect the negro would stand the lowest in the scale of mankind.

At a meeting of the Anthropological Society which took place last week, M. Broca exhibited three mummified brains which were forwarded from Bucharest, and which belonged respectively to a Jew, a Roumanian, and a Greek. These were presented, not to explain any differences of race, but to show the remarkable state of preservation they were in, which was effected by a process recommended by M. Broca, of which the following is the formula:—Strong nitric acid 333 grammes water to two litres, or in the proportion of nitric acid one part, water six parts—the quantity of the entire solution amounting to two litres for each brain (the latter being divested of its membranes), which is allowed to stand for two days, at the end of which 666 grammes are added to the above, and the whole to stand for two days longer, after which the liquid is drawn off, and the brain is then exposed to a dry atmosphere. In a short time the brain becomes of the consistence of pasteboard, and will remain in a state of preservation for any length of time. In this state, however, the brain is not suited for any other study than that of the convolutions, which can be done here even better than in the fresh subject. M. Broca told me that this preparation could not be applied to any of the other tissues of the body.

M. Roger, Physician to the Hôpital des Enfants Malades, has just begun his clinical lectures; but before entering upon the subject matter of the day's lesson, he exhibited the lungs of a child who died from bronchiectasis, or dilatation of the bronchial tubes, which he said was extremely rare in children. In the present case, the dilatations, amounting to four or five, which occupied the upper and middle lobes, were saccular, and were during life supposed to be tubercular cavities. Fortunately, however, the treatment generally adopted in both cases being about the same, the error of diagnosis could not here have done any very great harm.

Struck by the number of cases admitted into the Hospital, and the number of deaths exhibited in the mortuary returns from croup and "*angine couenneuse*" (diphtheria) — those from the former amounting for the week ending April 26 to fifteen, and those from diphtheria to eight—the lecturer observed that before the war and the disasters which followed this would perhaps not be considered an enormous proportion; but, as the population of Paris, which in the middle of 1870 amounted to nearly 3,000,000, is reduced to just about half that number, it is evident that under present circumstances the proportion of deaths must be looked upon as alarming, and he at least would consider these diseases as reigning epidemically in Paris. The public, he said, shared in the alarm, as the mortuary returns are published in the daily papers—which, he said was objectionable, as people were generally apt to misinterpret figures; and he could not see of what use it would be to the non-Professional world to be informed of the number of deaths that take place from disease. But surely, if kept in the dark, people would suspect the existence of epidemics where there were none, and thus be kept constantly in a state of terror; whereas, when these actually take place and are made known, the public would be induced to resort to such measures as would secure them against an attack.

By last week's return I find that the mortality in Paris has been considerably increased; but this is not confined to the two diseases referred to above. Erysipelas and puerperal affections are also on the increase; and it is to the same common cause, the "Medical constitution" (the bugbear of French Surgeons), that is attributed the great fatality of Surgical affections. I do not deny that atmospheric influences play a great *rôle* in the dissemination of disease; but the most potent causes are to be found in the Hospitals themselves, which in Paris are proverbially insanitary from overcrowding, and where the patients are miserably treated. About a fortnight ago I witnessed two operations by M. Richet on two female patients in the Hôtel-Dieu—one for a vesico-uterine fistula and the other for hæmorrhoids. The former was done after the manner of Marion Sims, and the latter consisted of a mixed method of the extemporaneous ligature (*ligature extemporanée*) and the actual cautery, to which I shall revert more fully on a future occasion. On Saturday M. Richet announced the death of both these patients from peritonitis, the cause of which affec-

tion, in the present examples, he could not explain in any other way than the one above referred to, as there were simultaneously in his wards a case of traumatic erysipelas and two cases of puerperal fever.

To return to M. Roger, the worthy Professor observed that diphtheria and croup were one and the same disease, but separated only by clinical tradition. He gave us nothing new as to the pathology of these dreadful affections, and not much more of their therapeutics; but he bade us never to forget that they were both eminently contagious and inoculable, and whenever any one member of a family be affected he should at once be removed. Neither disease, he said, was peculiar to children or adults; and as they are both of them sporadic, epidemic, and endemic, these conditions, as in all other cases, respect neither age nor sex. Diphtheria, he said, may remain latent for a considerable time, and he related a very remarkable example of this in a case that occurred in his private practice. He was summoned about a year ago to Boulogne to see a youth suffering from this affection, and on his arrival he directed that the other children (two girls) should be immediately removed. The boy died in forty-eight hours after the visit, and the two sisters who were sent to Paris fell victims to the disease a fortnight after, although on leaving Boulogne they were apparently quite well.

It is curious to observe the difference of treatment in the same Hospital of the same disease. For instance, in the "Hôpital des Enfants," M. Bouchut prefers tartar emetic as a vomitive in croup; whereas M. Roger employs ipecacuanha, as he says that tartar emetic is a dangerous remedy, and that ipecacuanha was sufficient for all purposes of vomiting, and the consequent ejection of the false membranes, without producing that great depression so inseparable from tartar emetic. The syrup of ipecacuanha, however, of the French Pharmacopœia—the *vomitif par excellence* for children—is not sufficiently energetic; in these cases he would therefore add from ten to twenty grains of the powder to each ounce of the syrup, according to the age of the patient, or, if necessary, have recourse to sulphate of copper in preference to tartar emetic. Tracheotomy, continued M. Roger, was his *dernière ressource* in croup, but which should not be put off too long; for, if practised when the asphyxia is far advanced, the patient often dies from the effects of the operation.

At M. Roger's clinique I noticed the presence of two young ladies, one English and the other an American, who it appears are *aspirantes* for the unenviable position of Doctoresses. If they confine their studies to the Hôpital des Enfants, or to the Maternité, nothing can be said against them; but directly they wander to other regions they are clearly out of their sphere, and even Æsculapius himself would probably disown them, as he never calculated upon having female disciples. I cannot do better than direct their attention to "A Woman-Doctor's Thoughts on Women-Doctors," which appeared in your last issue, for their edification; and this reminds me that, besides other weak points, women are in one particular respect eminently disqualified for the Medical Profession, and that is—the impossibility of their keeping a secret. This is so notorious that in Russia, where the telegraph-offices were chiefly filled by women, the Government lately had to dismiss them all, as their confidential correspondence became as publicly known as the most commonplace events of the day; but directly the female clerks were got rid of, matters returned to their normal condition.

On Wednesday, M. Béclard, the newly appointed Professor of Physiology, began his course of lectures at the School of Medicine under the most favourable auspices, if one can judge from the audience present. The amphitheatre was full to the ceiling, and many Professors and Practitioners honoured the lecturer with their presence. The worthy Professor, after having defined physiology as being the science of living beings, or organic bodies only, said that this term was used in contradistinction to biology, which was the science of nature in its entirety, including everything, animate or inanimate; or, more correctly speaking, organic and inorganic; and whilst the latter were known by certain fixed characters, the former possessed certain properties expressed by the terms "nutrivity," "reproductibility," and "excitability." He then passed in review the most important discoveries in physiology, foremost of which he placed those of Harvey and Charles Bell, and dwelt upon the advantages of vivisection, without which such discoveries could not have been made.

On Tuesday last M. Bébier described the aspirator of M. Castiaux, an *interne* of the Hôtel-Dieu, of which you will have seen a description in the Paris medical journals. In the first place, there is nothing new in its mechanism, it being simply a modification of Maisonneuve's and Dieulafoy's aspirators, but is more complicated, and consequently more expensive than either. Castiaux's apparatus, however, may be employed for other purposes besides those assigned to the other instruments. Its force is so great that it may be readily converted into a spray-producer, or used for piercing the skin, an operation frequently resorted to where an immediate cautery or issue is required and is called "aqua-puncture."

Those who have resided in Paris will remember the "Trinkhalles," or drinking-booths, that are established in various parts of the city for the use of the public in summer. These have already been opened for the season, and are welcome, as the weather has already become sufficiently warm to excite thirst; and at these miniature "châlets" you can get a tumbler of delicious soda-water, called "eau de Seltz" by the French, flavoured with any kind of syrup, for two sous (one penny), and, what adds to the charm, these drinks are served out by girls who are in general good-looking. In winter these fair damsels are replaced by members of the rougher sex, in every sense of the word—being generally Auvergnats—who serve out broiled chestnuts, a small measure of which you can get for a halfpenny. These may be looked upon as "weather signs," as they return every year with remarkable regularity; and to them may be added the public swimming-baths, which are already being established in their usual places on the Seine. The public baths in Paris are most luxurious establishments; and I must say that our Gallic friends, in this respect at least, are far ahead of the Anglo-Saxons, for the first-rate swimming-baths in London are far inferior to the worst ones in Paris.

Among the "weather signs" in Paris may be included the swallows which have come back, besides the "cafés chantants" and open-air concerts, which are also open during the fine weather in the evening, and form the great attraction for visitors as well as for the Parisians. These are situated in the Champs Elysées, where for a franc or two you can have your cup of coffee or any other drink, and listen to the best music and operettas in the world. What can be more soothing or refreshing after a hard day's work, whether of mind or body?

AUSTRIA.

Vienna, May 1.

THE RESULTS OF PROFESSOR STRICKER'S INVESTIGATIONS ON THE NATURE OF DR. LOSTORFER'S CORPUSCLES—(*continued*).

HAVING given still more detailed advice on and explanation of the method of investigation, Professor Stricker shows that under such circumstances it can easily be understood how it was possible for him to continually observe many preparations during several days. Standing on such ground, he is able to declare that the corpuscles, which he looked upon as products of coagulation or as pieces of protoplasm, disappear, as a rule, after twenty-four hours' germination. For the present purpose it is of no consequence whether or not the explanation of these bodies be right or wrong. The importance rests in their identity with the corpuscles of Lostorfer, and in the question whether the latter are products of the former. In both instances they would evidence that Lostorfer's bodies may be found in fresh blood of healthy as well as of diseased individuals. This, however, is not the case. Professor Stricker has registered all alterations occurring in plasma-islets of recent preparations, and has been convinced that new granules, which had not been seen in the field before, sprang up immediately around the bodies of fresh blood, although the contours of the latter had already been indistinct and paled away, and that these now granules under continual observation were seen to become larger and larger until they had assumed the shape of Lostorfer's corpuscles. In what manner the bodies of fresh blood perish cannot be said, nor does the phenomenon touch the question under consideration.

The preliminary question—viz., whether or not Lostorfer's corpuscles may be found in fresh blood—has now partly been answered; but the following observation replies to it in a still more positive manner:—There was, in the month of March, in Professor Zeissl's wards, a syphilitic patient whose blood was particularly suitable for Professor Stricker's experiments. He was about 22 years of age, ill-nourished, and had acquired syphilis four months before, consisting originally of a chancre, which was, however, followed by an exanthem and by iritis. From the hands of this patient a few drops of blood were taken, and objects prepared from them, when it was found,

after twenty-four hours, that the edges of the covering-glass were literally covered with the corpuscles in question. A second series of objects exhibited the same appearance. In a third series, however, the same result was not obtained after thirty-six hours, the corpuscles becoming visible only after forty-eight hours.

At about the time of examination of the last series, fires had been discontinued in the laboratory, notwithstanding the still low temperature of the atmosphere. On consideration of the circumstances which might have been productive of the ill-success just mentioned, Professor Stricker's attention was drawn to the difference of temperature, and on the next day the laboratory was heated again to 22° Centigrade. About three hours afterwards the corpuscles made again their appearance in large numbers. Some of them were of such a large size as imperatively to produce the suspicion in the observer's mind either of their having already existed in the fresh blood and escaped observation, or of their having had a rapid growth in this instance —a growth which must be capable of direct observation. On the next day, therefore, a new object was taken, the laboratory heated as the day before, and a certain point of the object's edges put under No. 10 of Hartnack's immersion-lenses and observed. About thirteen minutes might have elapsed since the blood had been taken from the patient, when Stricker thought he perceived some granules within the plasma-islet, which hitherto had been perfectly transparent. Ten minutes later the granules had attained such a definite character as to permit the observer to distinctly notice their position, while at the same time numerous new granules seemed to spring into existence in the same islet. After the lapse of half an hour the first observed granules were of such a size as to be decidedly recognised as those looked for, and after about one hour and a half they were as large as a small pus-corpuscle, whilst the whole plasma-islet was swarming with similar but smaller bodies. Stricker had now no doubt whatever of having Lostorfer's corpuscles before him, which he had seen growing within a plasma-islet under his very eyes. On the following day the experiment was repeated in the same manner, with the exception that, instead of heating the room, the object-bearer of the microscope was heated to 25° Centigrade. The result was exactly the same.

Having thus obtained a positive reply to the preliminary question, Professor Stricker now proceeded to answer the principal question—namely, What is the nature of the corpuscles: are they organic or inorganic? The facts hitherto arrived at do not warrant a reply to either of the two possibilities. It is true we have seen the bodies growing, but mere growth is not sufficiently characteristic to give a decision. Lostorfer announced that the corpuscles produced projections. This is true, but Stricker has positively observed some of these buds not to be the result of growth, but of opposition. In their quite recent state most of the corpuscles are spheroid, appearing homogeneous if viewed by No. 10 or even by No. 15 of Hartnack's immersion-lenses. Stricker now succeeded in directly observing a small corpuscle, lying sometimes near a bigger one, approaching to the latter, ultimately adhering to it, giving the impression of a small head with a mark of strangulation between it and the bigger body. After some time this line became altered in shape, the bodies assuming the appearance of clubs and lastly of globes. Stricker, of course, could not say whether all budded corpuscles originated in the same manner; but the observation was sufficient to enable him to pronounce that such buds are of no significance whatever as to the life of these formations. Thus, from the fact of their growing we can form no conclusion as to the nature of the corpuscles. The only conclusion warranted is their being formations hitherto unknown in blood.

In the meantime another experiment was made, which led nearer towards the explanation of the nature of the corpuscles. Professor Stricker noticed that the bodies are differently acted upon by chemicals immediately after having grown on the heated object-bearer, and differently when preserved several days as granules in the germinating apparatus. In the last instance they resist strongly the influence of acids as well as of alkalines, shrivelling a little, but not being destroyed. But, having been developed, they are destroyed by the chemicals mentioned, and even by water. For this reason it is important that no water should be admixed with the object at the commencement of germination.

A Convalescent Home for the children of poor parents was opened last week at Rhyl.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 7.

Mr. Hilton in the Chair.

After several reports from the Morbid Growth Committee had been read, Dr. Sanderson, as had been arranged, introduced the subject of Pyæmia.

Dr. Sanderson began his address by relating his first experiments as to the effect of inoculating the lower animals with pyæmic liquids. In the autumn of 1867 he had injected the purulent liquid contained in the ankle-joint of a patient who had died a few hours before with metastatic abscesses, general suppurative arthritis, and intense septicæmia, under the skin in three animals, a dog and two guineapigs. The two guineapigs died within short periods (fifteen and twenty days), and exhibited symptoms of great intensity. Both had metastatic abscesses, but in one of them the lungs were already beset with minute nodules resembling miliary tubercles. The dog lived seven weeks. In this case there were no secondary abscesses, but miliary tubercles of the liver and spleen. From one of the guineapigs two others were inoculated, of which one died of pyæmic, subcutaneous abscesses without visceral disease; the other, which lived longer, had no abscesses, but tuberculous disease of the lungs. During the same winter other experiments of the same kind were made, all of which seemed to show that by the inoculation of pyæmic products two sets of lesions might be produced—as an immediate result, metastatic abscesses accompanied by a general typhoid state, which was often fatal; as an ulterior result, either disseminated nodules, at first hard but afterwards becoming caseous at their centres, or interstitial induration—both forms of lesion having their seat chiefly in the lungs, spleen, and liver, but also occurring in other viscera.

Having stated these facts, which he said had even in 1868 led him to regard it as probable that the two forms of infective lesions—the tuberculous and the pyæmic—were connected together etiologically and genetically, he referred to another fact which resulted from experiments made in 1871, as to the existence of bacteria in animal liquids and the circumstances which determine their occurrence. These experiments had shown, that whereas bacteria could not be shown to be present either actually or in germ in the healthy liquids or tissues, or in the products of healthy inflammation, they were present potentially in pyæmic liquids—that is to say, that whereas ordinary pus could be kept for days or even weeks free from bacteria, provided the precautions against "spontaneous generation" were observed, pyæmic pus cannot be so kept, and moreover possesses the property of at once determining the development of bacteria in any suitable liquid to which it is added. At that time he had concluded from insufficient observation, as he now knows, that pyæmic pus did not itself contain visible bacteria.

A short account was next given of certain researches made during last summer in association with Dr. Klein as to the channels by which infective poisons are distributed from their centres of origin. Referring to the last occasion on which he had brought the subject of the intimate pathology of tubercle before the Society, and to the doctrine he had then advocated that tuberculosis is an irritative overgrowth of a pre-existing tissue, he said it had then been shown that the process, whether in its disseminated or interstitial form, has its seat in a certain tissue, and this tissue had been termed adenoid or lymphatic, both words implying its intimate and special relation with the lymphatic system; but the precise anatomical nature of this relation had been imperfectly made out. No further progress was made till last May, when Dr. Klein came to England with the distinct object before him of co-operating in the investigation of this very question. The field taken up was the peritoneum—the reason of the choice being that that membrane, and especially the omentum and diaphragm, had already been the subject of investigation as favourite seats of tuberculosis. Those researches have not merely served to elucidate one or two anatomical facts of very great importance to the pathologist—*e.g.*, the existence of a lymphatic system in the omentum, and its distribution, and the mode in which the peritoneum communicates with the lymphatic system—but have rendered it possible to give an account which, so far as the peritoneum is concerned, is tolerably exact and complete, both of the normal process of absorption and of the changes which the absorbing tissues undergo when they are entered by infective agents.

In the course of these experiments it was found that not only as regards the property of any given peritonitis to assume the infective character, but as regards the intensity of the infective results and their duration, there were endless varieties. In one set of cases the secondary lesions were suppurative, the constitutional disturbance intense, and the fatal result rapid; in another the lesions were vascular new growths, firm at first, afterwards becoming caseous, the progress slow and the functionable disturbance imperceptible. And then it appeared that in all those instances in which the pyæmia—that is, the acute character—manifested itself bacteria were present not merely in the purulent liquids but in the blood. Under these circumstances attention was directed from the effects to the poison itself. Soon after the opening of the Brown Institution, it was found that the practice of the hospital for animals was likely to afford the required material—in short, that pyæmia occurred in dogs under circumstances very similar to those which determine it in human beings, and exhibited similar symptomatical and pathological aspects. A series of experiments were therefore commenced in January last, having for their object to acquire a knowledge of the morbid poison, and particularly to discover by what conditions the variations of its intensity were governed. With reference to these experiments Dr. Sanderson would not anticipate the complete account of them in the report of the Medical Officer of the Privy Council, but would confine himself to giving an account of one series, and exhibiting the action of the pyæmic poison during life, and the post-mortem appearances. But before doing so he would state shortly what he understood to be the signification of the term "pyæmia." He then proceeded to say: "The word pyæmia is apt to be used in somewhat different senses, according as the person using it has before him the Medical or Surgical aspect of the disease. To define it completely we must, I think take into account its mode of origin, its symptoms, and the anatomical changes which it produces, not confining our attention to either of these to the exclusion of the rest. With this consideration in view I would comprehend in my definition the following propositions:—

"1. Pyæmia originates by the introduction into the living tissues, and eventually into the blood, of a poison, which is itself a product of inflammation. 2. The action of the poison manifests itself in an alteration of the blood, and in disorder of the vital functions. The former of these is characterised by the presence of bacteria, and by change in the optical characters of the blood, which often becomes obviously more transparent and darker by reflected light than it is naturally. Of the latter—viz., the general disorders of the vital functions—the most prominent phenomenon is fever, which in the more intense forms of the affection is followed by collapse, which culminates in death. 3. More remotely the disease manifests itself in secondary suppurations—*i.e.*, in the formation of metastatic abscesses—which may occur either in the internal organs or underneath the skin. The special characters of these metastatic (as I am in the habit of calling them) infective abscesses, are those which are well known, both to Surgeons and Physicians. They have the additional less-known character, that the pus they contain is full of bacteria. 4. Pyæmia differs from tuberculosis in the rapidity of its progress, and in the obvious character of the anatomical changes of which it consists. Whereas by tuberculosis we are understood to mean anatomically the overgrowth of cells in certain tissues which we designate lymphatic on account of their proved anatomical relation to the lymphatic system, the secondary inflammations of pyæmia result in the formation of infective abscesses. 5. Pyæmia resembles tuberculosis in its mode of origin. Both spring from inflammations, and, so far as relates to the anatomical characters of the lesions, both are inflammations. To both, therefore, the term secondary or infective inflammation is applicable."

"So much for the disease itself. Let me now," said Dr. Sanderson, "draw your attention to the nature of the poison. I wish to show, first, that every pyæmic abscess contains a poison, which, when introduced either into the circulation or into a serous cavity, produces the symptoms of pyæmia; and secondly, that we have this poison so entirely in our possession, and so far under control, that, beginning with an agent so mild in its action that it produces no marked symptoms we can convert it into an agent of such intensity that it kills in two or three hours with the formidable symptoms seen in the case we have now before us. This intensification is effected by a process which may be called cultivation. Dr. Klein made the important discovery, that if a pyæmic liquid was transferred to the peritoneum of a guineapig, and allowed to remain there for a couple of days, although it did not at first produce any intense symptoms in the animal itself, its toxic intensity increased in such a degree that when the transudation liquid produced in this way was injected to another animal it had acquired the most deadly activity; and that all such extremely active liquids were crowded with bacteria of a particular character, the increased number of which seemed to be in proportion to their toxic properties."

Dr. Sanderson then proceeded to exhibit a dog into the abdominal cavity of which six drops of a pyæmic transudation liquid had been injected three hours before. The animal was in a state of profound collapse, accompanied with vomiting, purging, and cramps of the extremities. Shortly afterwards the animal was killed and the abdominal cavity opened. The peritoneum contained liquid slightly stained with blood, which on microscopical examination was found to be crowded with bacteria. The intestines were distended with a frothy liquid which possessed none of the characters of the natural contents which had been found in other cases to be charged with shed epithelium. The internal surface of the whole of the alimentary canal, from the stomach downwards, was intensely injected, and presented appearances which (as had been found by more careful investigation in previous cases) were due to the separation of the epithelium from the surface of the mucosa, and the infiltration of that tissue with liquid.

The material which produced these results was obtained as follows:—Pus from a pyæmic abscess of spontaneous (*i.e.*, accidental) origin was introduced into the peritoneal cavity of a guineapig, and allowed to remain there for two days. It was then withdrawn from the guineapig, and some of it at once injected into the peritoneum of a dog. The dog was affected in exactly the same way as the animal exhibited to the Society. The remainder of the liquid was kept for five weeks in hermetically sealed tubes, after which six drops were injected into the peritoneum of a guineapig, which showed its action to have become relatively feeble. After two days the transudation liquid produced was (the day before) tested with a third guineapig, and found to be extremely active. This afternoon it was injected into the peritoneum of the dog exhibited. Dr. Sanderson then concluded by saying, "Such are the facts. The all-important question remains, Do these experiments concern us as Physicians and Surgeons, or not? I think they do. But what I want is to prove it; for I am well aware that unless clinical observation comes in aid of pathological experiment, the results of the latter do not tell practically. Let me state what are the lines of inquiry I desire to see taken up. The first question is—Do the characters which we have shown to be present in the products of acute secondary inflammation in the lower animals also exist in similar products in man? The second is more important still—Can it be shown that human pyæmic products when tested by inoculation possess exactly the same morbific properties as those which are possessed by the liquids to which our experiments relate? It is for these inquiries that I earnestly ask the assistance of Hospital Surgeons.

"Finally, I would say a word as to the limits of the question now before us. With regard particularly to the question of bacteria, I desire to keep to the bare facts of disease, and not to diverge into discussions as to their origin. It is a matter to me of comparative indifference how they originate. Our observations lead us to conclude—first, that they afford a *characteristic* by which we may distinguish the products of infective inflammations from those which are not infective, and that their number affords an indication of the degree of infectiveness; and, secondly, that their presence in the blood is an indication of that constitutional disturbance which accompanies infective inflammation, not merely when that disturbance assumes the degree of intensity of which we have an example before us, but in the slighter form of irritative fever. If these facts prove to be true, not only in the lower animals, but in man, their importance is quite unaffected by any theory we may entertain as to the origin of bacteria."

The PRESIDENT said Dr. Sanderson had entered on the study of the subject in a very thorough manner; his experiments were most striking.

Dr. CRISP did not believe pyæmia and tubercle had anything in common. Besides, tubercle in man and in the lower animals by no means meant the same thing. In monkeys, for instance, there was no bleeding from the tuberculous lung, and the spleen was generally affected. Pyæmia in the lower animals was rare.

Dr. BASTIAN said there was no case on record where bacteria were found in the blood of man during life. Do they occur in the blood of animals as bacteria or as the germs of these? That was a material question. If so, what was the relation of

these to the disease; were they its causes or its consequences? If causes of the disease, what was the difference between the disease thus caused and other animal diseases produced in like manner? Bacteria were constantly in communication with an animal during life, whether well or wounded. Fluids containing bacteria had been injected into animals, and no result followed. The question of the origin of these bacteria was really one of importance. They are invariably found in the vessels of individuals dying of high temperature, though none are discoverable during life. How, then, were they produced?

Mr. Hulke asked Dr. Sanderson to clear away certain obscurities. Did he use the term septicæmia and pyæmia as synonymous? Pyæmia he took to mean the introduction of pus into the vessels in some form or other; septicæmia he looked upon as produced by the introduction of some putrescent matter. Thus, in Dr. Sanderson's earliest experiments the dog seemed to be the subject of septicæmia. In an experiment he made, pus was filtered and the filtrate injected into the veins of a dog. Then followed rise of temperature and loss of appetite promptly, but these subsided and the dog got well. But if pus was injected unfiltered, especially if it had stood, then follow not only these symptoms, but also multiple abscesses. Putrid fluids, whether animal or vegetable, gave rise to symptoms such as those first mentioned.

Mr. Spencer Wells questioned if the physiological poison was always the cause. Sometimes, he thought, the poison was a chemical one. He recalled to mind a case where, after an operation on the abdomen, fluid collected in that cavity. He withdrew it, and an extract of it killed rabbits in very small quantity.

Dr. C. J. B. Williams could not come to any definite conclusion as to bacteria—whether they were a consequence or a cause of disease. In all probability a good many poisonous matters were developed in disease. Some of the processes were allied to suppuration or a similar condition.

Dr. Murchison referred to the possibility of idiopathic pyæmia. He had several times seen patients die of it in typhus where there was no ulceration of any kind. In great epidemics it was often common, especially if more than one case was in the house at a time.

Mr. Henry Lee considered inflammation produced by a putrid substance more fatal than if of spontaneous origin. Putrid fluids, too, were more deadly at one time than at another. Thus, chronic pus was less active than that the product of acute inflammation.

Dr. Anstie had seen several cases of pyæmia where there was no recognisable wound or putrid fluid. In one set of cases there was nothing to begin with except a catarrh or cold; in another only foul smells, as drains.

Dr. Cayley had not quite followed Dr. Sanderson's experiments. What happened to the animal in which the pus remained forty-eight hours? The fluid removed from its abdomen could not be the same as that introduced.

Mr. Hulke said a kind of alkaloid sepsin had been separated from putrid pus abroad.

Dr. Sanderson replied shortly that, as regards bacteria in general, he was well aware from his own experiments that the ordinary bacteria of putrefaction possess no toxic action, and that liquids containing them could be injected into the circulation of living animals without result. As regards the bacteria of pyæmic products, he had carefully guarded against the inference that they are the efficient cause of pyæmia. He regarded them only as characteristic inhabitants of infective liquids, and therefore very probably carriers of infection. As regards the word "septicæmia," he understood it to mean a state of the blood which is only present in the most intense forms of pyæmia; and he entirely agreed with Mr. Hulke in regarding metastatic abscesses as an accident rather than as an essential of pyæmic infection. The theory that the pyæmic poison is dependent on an alkaloid would be disproved in case it should appear that it is incapable of diffusion. On this question further inquiries were necessary.

Testimonial.—Mr. Alfred Fleischmann, having resignes his practice at Cheltenham, has been presented with a testimonial by his *clientèle*. The testimonial consisted of a valuable watch and chain, a Roman intaglio ring, a diamond pin, a despatch-case, and an inlaid revolver. Mr. Fleischmann is about to take up his residence in the Isle of Capri, in the Bay of Naples. The island is one of the most beautiful and healthy in the Mediterranean, and has now the advantage of a resident English Medical Practitioner.

NEW INVENTIONS.

THE PORTE KNAPSACK.

This is the invention of a wanderer amongst the High Alps—Mr. William White, F.S.A. It is a simple contrivance for carrying the knapsack so as to give freedom from strain on the front of the arm, and from pressure on the back, the weight being carried directly on the top of the shoulder by webs kept in tension by a light cane frame. Thus the usual fastening straps hang loose instead of carrying the weight, and ventilation is afforded to the back.

MEDICAL NEWS.

Royal College of Surgeons of England.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 14th inst., viz.:—

Berry, Dennis, Barnard Castle, student of the Newcastle School.
Bowman, George, M.B. Edin., Manchester, of the Edinburgh School.
Brailey, William Arthur, M.A. and M.B. Cantab., Cambridge, of Guy's Hospital.
Clarke, John Teasdale, Newcastle-on-Tyne, of the Newcastle School.
Cooke, John, Hoxton-street, of the London Hospital.
Deakin, Charles Washington Shirley, Hereford, of University College.
Ellis, Hyacinth D'Arey, Tipton, Staffordshire, of the Birmingham School.
Evans, Lawford David, L.R.C.P. Edin., Ruthin, Denbighshire, of St. Bartholomew's Hospital.
Green, James, Bolton, Lancashire, of the Manchester School.
Grogono, Walter Atkins, L.S.A., Stratford, Essex, of the London Hospital.
James, Cyrus, L.S.A., Highworth, Wilts, of the London Hospital.
Kelly, William, Liverpool, of the Liverpool School.
McOscar, John, M.D. St. Andrews, Argyll-street, Regent-street, of the Middlesex Hospital.
Morris, John Henry, Burslem, Staffordshire, of the Manchester School.
Orwin, Arthur Wigelsworth, Granville-terrace, W., of the Charing-cross Hospital.
Paterson, Robert Haldane, L.R.C.P. Edin., Brigg, Lincolnshire, of Guy's Hospital.
Perkins, Whitfield, L.S.A., Camberwell, of Guy's Hospital.
Roose, Edward Charles Robson, L.R.C.P. and S.Edin., and L.S.A., Brighton, of Guy's Hospital.
Steele, Sidney Thomas, L.R.C.P. Edin., Bath, of St. Bartholomew's Hospital.
Tatum, Herbert Thomas, Twickenham, of St. George's Hospital.
Williams, Leonard, M.A. Cantab., Victoria-square, S.W., of St. Thomas's Hospital.

The following gentlemen passed on the 15th inst., viz.:—

Bishop, Sydney Olive, Sandhurst, Berks, student of St. Bartholomew's Hospital.
Cole, George Martin, Westbourne-villas, of St. Mary's Hospital.
Dawes, Richard S. Mark, Mornington-road, of University College.
Graham, George William, L.R.C.P. Edin. and L.S.A., Winchester, of Guy's Hospital.
Harries, Thomas David, L.R.C.P. Lond. and L.S.A., Llancast, Pembrokeshire, of Guy's Hospital.
Jones, Owen Thomas, Bangor, North Wales, of St. Bartholomew's Hospital.
Miller, John Alexander, Great Percy-street, of St. Bartholomew's Hospital.
Odling, Tom Francis, Buslingthorpe, Lincolnshire, of St. Bartholomew's Hospital.
Price, Edwin, Dudley, Worcestershire, of the Birmingham School.

Five gentlemen passed their examinations in Surgery, and when qualified in Medicine will be admitted Members of the College; and seventeen candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Hospital studies for six months. The half-yearly examination of candidates for the Fellowship of the College commences this day (Friday), for which sixty gentlemen have entered their names.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, May 9:—

Aubrey, Richard, Weston-super-Mare.
Lewis, Frederick William, Llandovery, Carmarthen.
Pritchard, Robert Clement, Puckeridge, Herts.
Saer, David Protheroe, Pembroke Dock.
Walker, William Newman, Tollington-park, N.

As an Assistant in Compounding and Dispensing Medicines:

Dismorr, Henry, Gravesend, Kent.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Willcocks, Alexander John, Guy's Hospital.
Young, George William, London Hospital.

Apothecaries' Hall, Dublin.—At examinations held in the first and third weeks of April, the following gentlemen,

having passed their Professional examination, obtained the Licence to practise Medicine :—

Fitzgerald, Francis J.	Raverty, James.
Kennedy, Nicholas J.	Simpson, Boyle V.

Certificates in Arts, entitling the holders to commence their Medical studies, were granted to the following :—

Brennan, James.	Lyons, John.
Carr, William.	McQuade, Patrick Carolan.
Denning, Arthur Francis.	Oldham, Edward.
Healey, Thomas.	Sharpe, James.
Keene, Patrick.	Sproule, Simon Davenport.

The prize of five guineas annually given by the Council was awarded to Herbert Alexander Auchinleck at an examination held on May 6 and 7.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Boyle, A. A., L.R.C.P.E., L.R.C.S.E.—Medical Officer for the Hutton District, Stokesley Union, *vice* E. J. Wilson, L.S.A., deceased.

Campbell, William, M.B., C.M.—Joint House-Surgeon to the Royal Infirmary, Dundee, *vice* D. S. Mooa, L.R.C.P. Edin., L.R.C.S., resigned.

Carter, Albert Edward, L.R.C.P. Edin., L.M., L.R.C.S.I.—Medical Officer of the South Division of the Liverpool Police, *vice* T. R. Bickerton, F.R.C.S. Edin., L.S.A. Lond., deceased.

Chambers, Pearson, A.P.S.—Assistant Dispenser to the Eastern Dispensary, Liverpool.

Courtenay, Edward Mazière, M.B., C.M.—Assistant Medical Officer to the Derby County Asylum, Mickleover.

Eagea, Thomas Cawley, M.R.C.S. Eng., L.S.A.—Medical Officer for the Woking District, Guildford Union, Surrey.

Forshaw, Thurstan, L.R.C.P. Edin., L.S.A. Lond.—Medical Officer for the Smalley District of the Belper Union, Derbyshire.

Green, Charles, M.R.C.S. Eng., L.S.A.—House-Surgeon to the District Hospital, West Bromwich.

Jefferiss, Walter R. S., M.B., L.R.C.P. Edin., L.R.C.S. Edin.—Medical Officer for Evie, Orkney.

Kempster, William Henry, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A.—Medical Officer for the Eastern District of the Parish of Battersea.

Lloyd, W., M.B.—House-Surgeon to the Carmarthenshire Infirmary, Carmarthen.

Long, Mark, M.D., L.R.C.S.I., L.S.A. Lond.—Medical Officer for the 7th District, Hackney Union.

McInnes, James, L.F.P.S. Glasg.—Medical Officer for No. 3 District of Barony Parish, Glasgow, *vice* George Burn, M.D. Edin.

Milsome, John Ruddell, M.D., L.R.C.P.L., M.R.C.S. Eng.—Medical Officer for the Workhouse, Chertsey, Surrey.

Moss, Hugh, M.D., St. And., M.R.C.S. Eng., L.S.A.—Medical Officer for the Congleton District, Congleton Union, Cheshire.

Percival, George Henry, M.R.C.S. Eng., L.S.A.—Assistant Medical Officer to the Salop and Montgomery Lunatic Asylum, Shrewsbury.

Pritchard, Urban, M.D. Edin., M.B., L.R.C.P. Lond., L.S.A.—Demonstrator of Practical Physiology at King's College.

Provis, Wilton, L.R.C.P., M.R.C.S.—Medical Officer for No. 2 District, Mere, Wiltshire.

Rowlands, James D., M.R.C.S. Eng., L.S.A.—Visiting-Surgeon to the Carmarthenshire Infirmary, Carmarthen.

Watkins, D. R., M.R.C.S. Eng., L.M., L.S.A.—Visiting-Surgeon to the Carmarthenshire Infirmary, Carmarthen.

White, William, A.B.T.C.D., L.R.C.S.I., L.K.Q.C.P., L.M.—Medical Officer for the Dispensary District, Celbridge, co. Kildare.

Wilson, William, M.D., L.K.Q.C.P. Irel.—Medical Officer for the Burt District, Londonderry Union.

NAVAL APPOINTMENTS.

Admiralty, May 7.—Francis Yeates Toms has this day been promoted to the rank of Staff Surgeon in her Majesty's Fleet, with seniority of April 25, 1872.

BIRTHS.

Braid.—On May 9, at The Grove, Burgess Hill, Sussex, the wife of James Braid, M.D., of a daughter.

Brookes.—On May 12, at 94, Kennington-road, S.E., the wife of Robert Charles Brookes, M.R.C.S., of Westminster-bridge-road, of a daughter.

Carvea.—On May 11, at 58, Corpus-buildings, Cambridge, the wife of Edmund Carver, M.B., of a son.

Clark.—On April 27, the wife of T. Clark, L.R.C.P. Edin., L.R.C.S., Dunster, Somerset, of a daughter.

Kingsford.—On May 11, at Upper Clapton, the wife of C. D. Kingsford, M.D., M.R.C.S. Eng., L.S.A., of a son.

Leake.—On May 13, at Sunnyside, St. Margaret's, Twickenham, the wife of Dr. Jonas R. Leake, half-pay, 80th Regiment, of a daughter.

Millar.—On May 12, at 2, Belsize-park-gardens, the wife of L. S. Millar, M.D., of a daughter.

Wallis.—On May 7, at Weymouth, the wife of Staff Surgeon W. B. Wallis, late 74th Highlanders, of a daughter.

Wigmore.—On May 12, at 31, Inverness-road, Hyde-park West, the wife of William Wigmore, M.R.C.S. Eng., of a daughter.

Workman.—On May 8, at Castle-street, Reading, the wife of F. Workman, M.R.C.S. Eng., L.S.A., of a daughter.

MARRIAGES.

Fuller—Lang.—On May 11, at St. Michael's, Sittingbourne, James Mortimer Fuller, M.R.C.S.E., L.S.A., second son of Hugh Fitter Fuller, M.R.C.S. Eng., L.S.A., St. John's-wood, to Ella, second surviving daughter of the late William Robert Lang, Esq., H.M. Dockyards, and Captain Royal D. Y. Brigade of Artillery.

Henser—Francis.—On May 8, at St. Peter's Church, Rochester, Dan Henser, to Emily Cornelia, eldest daughter of Dr. C. R. Francis, Deputy Inspector-General of Hospitals, Dinapore.

Moxon—Bennett.—On May 8, at Linton, Cambridgeshire, John Holt Moxon, of Rugeley, Staffordshire, to Harriette Georgiana, elder daughter of Frederick Bennett, M.R.C.S.E., of Linton, Cambridgeshire.

Wilson—Hopgood.—On May 9, at St. Saviour's, Paddington, the Rev. Augustus Charles Hodgson Wilson, son of the Rev. W. Wilson, vicar of Desborough, to Honor Hutchings, eldest daughter of Joseph Hopgood, M.R.C.S., of 130, Portsdown-road, Maida-vale.

DEATHS.

Arnold, Frances, widow of the late J. C. Arnold, M.R.C.S. Eng., L.S.A., of Blackburn, and eldest daughter of the late W. M. Epton, of Langton, at Langton-by-Wragby, on May 6, aged 33.

Carruthers, James, M.R.C.S. Eng., L.S.A., at Finchley, on May 10, aged 50 years.

Corbe, Charles, M.R.C.S. Eng., at his residence, 2, Nottingham-terrace, York-gate, on May 13, aged 53 years.

Dukes, Selina, the beloved wife of William Profit Dukes, L.R.C.P. Edin., M.R.C.S. Eng., at Spitalfields, on May 10, aged 33.

Fox, Edward Lloyd Harries, M.D., M.B., M.S., M.R.C.S. Eng., L.S.A., son of L. Owen Fox., M.D., L.R.C.P., F.R.C.S., L.S.A., at Broughton, Hants, on May 11, aged 30.

Graham, Elizabeth Belsches, relict of the late Robert Graham, M.D., Professor of Botany in the University of Edinburgh, at Coldoch, Perthshire, on May 13, in her 76th year.

Hende, William Wentworth, M.D., at his residence, Southfields, Leicester, on May 11, in his 52nd year.

Jotham, George William, M.R.C.S., L.S.A., at Elderfield, Kidderminster, on May 7, aged 67.

Mumford, Maud Violet, the infant daughter of William Lugar Mumford, M.D., on May 9, aged 12 days.

Roberts, Priscilla, relict of William Roberts, late Surgeon of the Royals, at Sydenham, on May 10, aged 84.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Bradford Infirmary.—Senior House-Surgeon. Diplomas and testimonials to be sent to Mr. C. Woodcock, at the Infirmary, on or before May 22.

Gloucester Dispensary.—Dispenser, registered under the Pharmacy Act, and otherwise duly qualified. Apply to George Whitcombe, Esq., Gloucester, from whom further particulars may be obtained.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

North Riding Infirmary, Middlesborough-on-Tees.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

University College Hospital.—Resident Medical Officer. Applications and testimonials to be sent to John Robson, B.A., Secretary to the Council, on or before May 18.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATION.

Bideford Union.—The Buckland Brewer District is vacant; area 12,929; population 2500; salary £45 per annum. The Abbotsham District is vacant; area 1758; population 365; salary £4 10s. per annum.

APPOINTMENTS.

Congleton Union.—Hugh Moss, M.D. St. And., M.R.C.S. Eng., L.S.A., to the Congleton District.

Hackney Union.—Mark Long, L.R.C.S. Ire., M.D.Q.U. Ire., L.S.A., to the Seventh District.

Tamworth Union.—Wm. R. Brunton, M.R.C.S. Eng., L.S.A., to the Tamworth District and the Workhouse.

Westminster Union.—George E. C. Jackson, M.R.C.S.E., L.R.C.P. Edin., to the Western District.

Professor Stromeyer is at present in England.

His Royal Highness Prince Arthur will open the Liverpool New Southern Hospital on Whit Tuesday.

Mr. Whitmore has been elected Medical Officer of Health for the Kensington New Infirmary.

The Medical Officer of Health for Kensington, Dr. Dudfield, has had his salary raised from £200 to £300 a year.

The Recent Concours at the Paris Faculty of Medicine.—The *concours* for the election of seven *Agrégés* or Assistant-Professors has just terminated in the choice of MM. Hayem, Damaschino, Fernet, Lancereaux, Bergeron, Duguet, and Rigal. There were thirteen competitors, and some of the judges have been heard to say that this is the most remarkable *concours* which has taken place for a long time, so great and so equal was the merit of the candidates.

THE LEVÉE.—At the *levée* held on Monday, at St. James's Palace, by his Royal Highness the Duke of Edinburgh, on behalf of her Majesty, the following presentations were made:—Dr. George Paddock Bate, Queen's Own Light Infantry Militia, by Major Ardwick Burgess; Surgeon R. W. Jackson, 100th Regiment, by the Adjutant-General; Deputy-Inspector-General Ivey, on appointment as Medical Officer to the Tower, by General Lord de Ros; Staff-Surgeon C. M. M. Miller, M.D., by the Adjutant-General; Dr. G. Oppert, by the Earl of Cork; Gopaul Chunder Roy, M.D., F.R.C.S., by the Secretary of State; Drs. Cape, Francis Hawkins, Morell-Mackenzie, George Owen Rees, W. Sedgwick Saunders.

THE Pharmaceutical Society gave a *conversazione* at the South Kensington Museum on Wednesday evening, which was largely attended by members of the Medical Profession and of other scientific bodies. There was some good singing and instrumental music, and the whole affair went off brilliantly.

CHOLERA, which had subsided in Jounpore, is reported on the 15th ult. to have broken out again seriously, and is spreading over the district. The average number of deaths is said to exceed 300 a day.

SELBY UNION.—Mr. John Fothergill, late Medical Officer for the Selby District and the Workhouse, has been granted a superannuation allowance of £30 per annum. He had been in office since the year 1838.

THE INFIRMARY FOR EPILEPSY AND PARALYSIS.—The Committee of this institution have secured a noble house, with grounds, in Portland-terrace, Regent's-park, and expect to get the alterations completed and the new premises opened by June 1.

THE MITCHAM SCHOOLS. — Ophthalmia and other diseases, which have long been greatly prevalent amongst the children of the Mitcham establishment, will, it is hoped, be obviated, the Holborn Guardians having unanimously decided to improve the drainage.

GAROTTING IN DUBLIN.—We understand that about a fortnight since, Dr. F. Kirkpatrick, Vice-President of the Royal College of Surgeons, Ireland, while proceeding to visit a patient at ten o'clock at night, was garotted in one of the most fashionable streets of Dublin, and deprived of his watch and chain. One of a gang of three men quickly rendered Dr. Kirkpatrick insensible by pressing firmly on the carotid arteries on both sides.

PRESENTATION.—Mr. James Mill, of Thurso, has been publicly presented with a handsome brougham, a silver tea-service, and a timepiece, the latter bearing the following inscription:—"Presented to James Mill, Esq., J.P., Surgeon, Thurso, by a number of his friends in the county of Caithness, as a mark of their appreciation of his valuable services as a Medical Practitioner for forty-five years, and as a magistrate."

ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The next meeting of this Association (being the last of the present session), will be held on Saturday, May 18, at the Scottish Corporation Hall, Crane-court, Fleet-street, at half-past seven; Robert Druitt, M.R.C.P., Lond., F.R.C.S., in the chair. Dr. Wyatt Crane, Medical Officer of Health, Leicester, will be balloted for as an extra-metropolitan member. Dr. Henry Letheby will read a paper entitled "The Facts elicited by the present Epidemic of Small-pox, in reference to the Rise and Progress of the Disease, its Average Mortality, its Epidemic Periodicity, and the Prophylactic Influence of Primary and Secondary Vaccination."

THE ROYAL POLYTECHNIC INSTITUTION.—The directors of this Institution have determined to reorganise the scientific department of the Polytechnic: as a commencement they have completely refitted the laboratory, and made arrangements by which pupils can be received, and all scientific pursuits conducted with the greatest regard to perfection and economy. They have elected Professor E. V. Gardner, F.C.S., F.S.A. etc., a gentleman well known for many years past as an experienced chemist, to be their Professor of Chemistry, and have placed the arrangements under his care. Professor Gardner it may be remembered was Professor of Chemistry to the original Royal Polytechnic, and then directed the scientific department with great success, not only as regards the pupils themselves, but also as a financial undertaking. Particular attention has been paid to the subject of investigations connected with patents and inventions, that they may be conducted privately. Patentees will be able to derive the benefits to be obtained from the experience of the Professor aided by the extensive school of models and apparatus in the Institution.

EXAMINATION QUESTIONS.—The following were the questions on Surgical Anatomy and the Principles and Practice of Surgery and Medicine submitted to the candidates for the diploma of Membership of the College of Surgeons on the 10th and 11th instant, viz.:—1. Enumerate the various dislocations of the head of the thigh-bone, and describe the position of the limb in each kind. 2. What are the symptoms of chronic rheumatic arthritis? Describe the appearances which are observable in joints that have been affected with this disease, and mention the joints most liable to it. 3. Mention the parts successively divided in making a dorsal flap in Chopart's operation, commencing the incision on the outer side of the foot. 4. What are the pathological changes which lead to the occurrence of senile gangrene? Describe the symptoms of the disease, including the premonitory, its usual progress, and the treatment. 5. Name in order the structures that must be divided in the lateral operation of lithotomy, and the parts liable to be wounded. 6. Describe the various kinds of opacity of the cornea, their causes, the prognosis, and treatment.—1. Describe the symptoms which are produced by the passage of a gall-stone and of a calculus from the kidney, and mention the treatment you would adopt for their relief. 2. You are called to a patient who has been suddenly taken ill shortly before, and you find her much prostrated, complaining of pain in the abdomen, and lying with her lower limbs drawn up. What are the different causes upon which her state may depend? and what would you do for her relief? 3. Write a prescription in Latin, in full, and the directions in English, for a diuretic draught, and a mixture to allay nausea and vomiting. What are the preparations of the following substances contained in the British Pharmacopœia: lead, arsenic, silver; and for what purposes, and in what doses, would you use them?

EXHIBITION OF ARTS, INDUSTRIES, AND MANUFACTURES, DUBLIN.—Owing to the liberality of Sir Arthur Guinness, Bart., and Mr. E. Cecil Guinness, the Exhibition Palace, Earlsfort-terrace, Dublin, has been placed at the disposal of a very influential committee of noblemen and gentlemen for the purpose of establishing an Exhibition of Fine Arts, Industries, and Manufactures. Suitable space has been allotted to the various sections of (1) Natural Products; (2) Works of Art and Industries, and Manufactures. The first section will be of special interest to the Medical Profession, including as it does minerals, vegetable and animal products, chemical products, food, raw materials, and the immediate product of their manufacture. The second section will include a national portrait gallery of eminent persons connected with Ireland by birth or services. In the loan museum will be found a probably unexampled collection of ceramic ware, and to this her Majesty the Queen has largely contributed. The arrangement of the sections is rapidly approaching completion, and the Exhibition is to be opened by H.R.H. the Duke of Edinburgh, Knight of St. Patrick, on the 5th proximo. We wish the undertaking all the success it so well deserves from the public and national spirit displayed by its more immediate promoters.

THE MERCANTILE MARINE AND EPIDEMICAL DISEASE.—On April 28 last Dr. Charles Frederick Moore, the Medical Inspector of Seamen for Dublin, brought under the consideration of the Local Marine Board in that city the great importance of preventive measures in respect of the present frequent carriage of disease by means of coasting and other shipping. He alluded to a previous recommendation, endorsed by the Local Marine Board at Dublin early in 1871, that vaccination and revaccination should be encouraged among the crews of all vessels trading to or from infected ports, which, unfortunately, was never carried out; and to the great advantage obtainable by the systematic supervision and inspection by the Medical Inspectors of all ships and crews, especially during the present general diffusion of epidemical disease. He endeavoured to show how each locality, subsequently to receiving infected persons or effects, becomes itself in turn the means of diffusing disease to other ports. The great value of considering such matters, and of sparing no reasonable expense to prevent our ships and ports becoming infected, at the present moment forces itself upon us, inasmuch as Continental powers have commenced to place quarantine upon our shipping. Dr. Moore also alluded to the value of the Contagious Diseases Prevention Act, as seen in some of the English ports, where it has been enforced with the best effects. He, moreover, pointed out that prevention of disease was truly an imperial and a national question, and consequently deserved the best consideration of the authorities.

LARGE HYDROCELE.—Dr. Meachem (*New York Medical Journal*, April, 1872) relates an instance of a hydrocele which reached to within four inches of the knee-joint and measured twenty-three inches in circumference. On its being tapped, five quarts of a very dark, almost black, serum (the hydrocele originated in a severe blow received fifteen years before) was discharged. Within three years paracentesis has been repeated six times, never less than three pints being discharged —the fluid being much lighter in colour on these latter occasions. The patient refused to consent to other than palliative treatment.

SUBCUTANEOUS INJECTION OF STRYCHNIA IN AMBLYOPIA.—Dr. Cohn, of Breslau, states that he draws the following general conclusion from the trials which he has made in fifty cases of Nagel's plan of injecting into the temporal region strychnia in doses of two milligrames—no other means being contemporaneously employed:—In all cases in which the ophthalmoscope explains nothing, a trial of the strychnia is decidedly indicated, and the prognosis, especially in hyperopia with amblyopia, is very favourable. Its utility is very doubtful in the first traces of commencing degeneration of the optic nerve, and it is absolutely useless in decided atrophy. He has never seen any mischief result from the use of the strychnia in this dose.—*Wiener Med. Woch.*, No. 13.

A PROFITABLE PATIENT.—M. Latour, referring to the death of M. Cherest while still young, mentions a singular patient who contributed to his income 14,000 francs per annum, and in leap-years 14,640. This patient, a well-known person in the mercantile world, had a terrible fear of dying, and besought Cherest to pay him a visit while in bed every morning at nine o'clock, his fee being forty francs per visit. Cherest consented, and for several years paid his daily visits, always receiving his forty-franc piece. During the last years of his life this patient, a very old man, became really ill, and exacted first two visits a day, then three, and then four, always paying his forty francs for each.—*Union Méd.*, May 4.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—Bacon.

Hospital Sunday.—We have received a communication from Mr. F. W. Lowndes, of Liverpool, well and favourably known by his energy in the correction of abuses, and for his large-hearted charity. Our correspondent suggests that there should be a "Hospital Sunday" in London, and refers with pride and satisfaction to the munificent collections made in the churches of the various denominations in Liverpool and Birmingham. He thinks that a like result might be obtained in the metropolis, and strongly urges a trial of the plan. We cannot agree with Mr. Lowndes that the plan could be easily carried out in London, but the time will no doubt come when some effort will be made in that quarter.

Dublin.—"The Daily Express" of the 7th instant contains the following with reference to the establishment of a Convalescent Hospital:—

"The Public Health Committee of the Corporation have failed in obtaining a building suitable for a Convalescent Hospital, and ask the citizens to believe that they have done their utmost to carry out their wishes, expressed at the meeting held a month ago at the Mansion-house. They take credit to themselves for having met a dozen times, with an average attendance of sixteen members. We do not, however, believe that public credulity is so great as to suppose that if the Committee had really desired to procure a Hospital, they could not have found some building which might be converted to such a purpose. We believe that Mr. Byrne gave a more accurate view of their deliberations in saying that they spent a month in trying not to do it, and have succeeded in their object. A resolution has been adopted by the Council which seems to indicate an honest desire to provide the required building, and we may hope that it will stimulate the Committee to more active exertions. A doubt exists as to the source from which funds for the existence and maintenance of a Convalescent Home can be obtained, and the amount available for the purpose, but Mr. Byrne and Mr. Maclean suggested means of obviating this difficulty, which we believe it will be ultimately found is more imaginary than real. It is satisfactory to know that in the meantime sufficient accommodation can be procured in some of the leading Hospitals which have set apart a portion of their buildings for the care and treatment of convalescent patients."

DOCTORS AND CHEMISTS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Your correspondent, "Fifty-five No. 2," has very reasonably complained of the injustice done to duly qualified Medical Practitioners by those who are merely chemists presuming to prescribe for patients over the counter and to visit them at their own houses.

I have always been of opinion that prescribing by a chemist, or by any one who has not been properly educated in the diagnosis and treatment of disease, is dangerous folly; but I regret that this evil has its origin from Medical Practitioners themselves, who have encroached upon the province of chemists by selling drugs, not only in what are known by a grandiloquent misnomer as "open surgeries," but also in what are much more objectionable —open shops, in which, besides drugs, such miscellaneous articles as soap, corn-flour, and brushes are sold. A Surgeon or Physician should know and maintain the dignity of his Profession, and not degrade it by becoming a tradesman; for such he certainly is, as long as he traffics in any kind of goods for profit.

According to the Continental system, Medical men are forbidden by law to dispense their own medicines, which must be compounded by the recognised *pharmacien*. It is greatly to be desired that this restriction should be established in England; but even without it I am persuaded that chemists would at once cease to prescribe and visit, if members of the Medical Profession would cease to dispense and to keep drug stores. "*Ne sutor ultra crepidam*" should be the maxim both of Doctors and chemists.

I am, &c., D. CARROLL, LL.B.,
25, Gt. Coram-street, W.C., May 13. Registered Chemist (exam.).

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The complaints of your correspondent about the abuses of practising chemists are decidedly too well founded; but whoever has visited foreign countries will tell you that the greater number of chemists—or, at least, a good majority of that worthy corporation—do the same everywhere, only varying their way of proceeding according to the customs and laws of the countries. Wherever laws stepped in for protection the measures taken turned out to be a failure. In parts of Germany, for instance, the District Medical Officer was bound to watch quacks and to prosecute them whenever cases of this kind came under his notice. Now, charlatanism and quackery have never been less flourishing and in favour there than here or anywhere else. Restrictions and punishments did but add martyrdom and glory to their impure practices, thus raising their value much higher in the eyes of public opinion, and so much to the detriment and disgust of the Medical Profession, that from different quarters voices are calling for the abolition of these antiquated restrictions. There will be no remedy found out for the injuries inflicted upon the honest by the dishonest, except in the higher education of the people. I enclose my card.

London, May 10. I am, &c., W.

THE MRS. DAY FUND.

	£	s.	d.
Amount already promised	360	0	0
A Friend	0	5	0
A Friend, L. B.	1	0	0
Adamson, Mrs., St. Andrws.	1	0	0
Adamson, The Misses, St. Andrews	2	0	0
Alexander, Miss, St. Andws.	1	0	0
Baillie, Dr., Cheltenham	5	0	0
Begbie, Dr. Warburton, Edinburgh	5	5	0
Blake, Dr. Paget, Torquay	1	1	0
Byass, Dr., Cuckfield ...	1	0	0
Call, Miss, St. Andrews ...	1	0	0
Cumberbatch, Dr., London	1	1	0
Cunnyngham, Rev. H. A.	10	0	0
Dick, Miss, St. Andrews...	0	10	0
Glossop, Lieut.-Colonel, Torquay	1	1	0
Harley, Dr., F.R.S., London	1	1	0
Hembrough, Dr., Waltham	1	1	0
Heiddle, Prof., St. Andrews	1	0	0
Keiller, Dr., Edinburgh ...	1	1	0
Lombe, Dr., Torquay ...	1	1	0
Lyon, Mrs. and Miss, St. Andrews	3	0	0
Macintosh, Dr., Torquay	1	1	0
Macreight, Dr., Torquay	1	1	0
Martin, Dr., Peudlebury...	0	10	6
McIntosh, Dr., Murthly ...	3	3	0
Meade, S., Esq., Torquay	1	1	0
Murchison, Dr., F.R.S., London	1	1	0
Pretty, Dr., Norwood ...	1	1	0
Pye Smith, Dr. E., Hackney	1	1	0
Robbins, Mr., London ...	1	1	0
Routh, Dr., London ...	1	1	0
Sanderson, Dr. Burdon, London	2	2	0
Spalding, Mrs., sen., Edin.	1	1	0
Spalding, Mrs. W., Edin.	1	1	0
Steedman, Mrs., Clapham-park	2	2	0
Struthers, Prof., Aberdeen	1	1	0
Tetley, Dr., Torquay ...	5	0	0
Thompson, Dr. Spencer, Torquay	1	1	0
Walker, Dr., Hauley ...	0	10	6
Watson, Dr. P.H., Aberdeen	1	1	0
West, Dr., London ...	2	2	0
White, A. D., Esq., London	2	2	0
Whitson, Mrs., St. Andrews	1	0	0
Williams, Dr. C.J.B., F.R.S., London	2	2	0
Wilmot, Dr., Ryde ...	1	1	0
Wrangham, Dr., Wragby	0	5	0
Wyman, Dr., Putney ...	1	1	0

Subscriptions may be sent to Dr. Richardson, 12, Hinde-street, W.; Dr. Paul, Camberwell House, S.E.; or to Dr. Sedgwick, 2, Gloucester-terrace, Hyde-park, W.

HOW TO UTILISE CRIMINALS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Opposed to the loss of life by murder, there is the saving of life by the Medico-chirurgical art. It becomes a question whether we cannot render those who take away human life capable of ministering to the saving and prolonging of life, by means of the method which is about to be suggested. Taking the capital punishment as a simple act, it is the destruction of a life without direct compensation. In a political economy view it is simply a case to the debtor side, with no creditor page at all to compensate. Now, if we could render these forfeited lives subservient to the saving of life, we should have a debtor as well as a creditor account, and perhaps a satisfactory balance. There are many questions of communicability of disease which are still disputed; there is the action of drugs and medicines, which, for want of the *corpus vile*, on which *experimentum fiat*, have to be decided by the risk of such valuable lives as those of our best physiologists themselves. This is indeed a waste for any State to make, and the more so when they have at disposal so many forfeited lives on which these very experiments might be performed without any loss to the community, even should the result prove fatal. But in the greater majority of cases, the fatal result need not be anticipated, and yet the information obtained might be most valuable. Thus, we do not know whether the diseases known as scarlatina, measles, small-pox, etc., are conveyed by food, air, or contact of skin with skin. Now, the forfeited lives might, with perfect justice, be made use of for the purpose of deciding such points as well as others of the character of more purely physiological investigations. Surely it is not more cruel to endanger these forfeited lives than to take them away altogether. It may be argued that in the one case the suffering is short and decisive, whilst in the other it is prolonged and often dangerous. But he who takes the life of another should be subjected to a terror of a deterrent character; and it would seem that to be condemned to be the subject of physiological investigation might have more of terror in it than even death itself.

I will not prejudice the case by signing my name to this letter, though I enclose my card, which is my guarantee that I feel this is a question worthy of thought. I am, &c., CALUMET.

PERIODICALS AND NEWSPAPERS RECEIVED—
Nature—Melbourne Argus, March 28—Dublin Journal of Medical Science —Madras Monthly Medical Journal—Medical Press.

COMMUNICATIONS have been received from—

Mr. T. Piper; Dr. Beigel; Dr. Grace Calvert; Dr. D. W. Roberts; Dr. W. Wilson; Mr. Fleischmann; Dr. W. H. Pearse; Dr. R. Lawson; Dr. Dudfield; Mr. R. Quain; Mr. J. Chatto; Professor Flower; Mr. D. Carroll; Dr. Phillips; Mr. F. H. Hemming; Dr. Vinen; Dr. Stevenson; Dr. H. Harris; Dr. Sheen; Mr. Nettleship; Mr. Chapman; Mr. Whitmore; Mr. Charles Hill; Dr. Sedgwick; Mr. J. Hutchinson.

BOOKS RECEIVED—

A Manual of Chemical Physiology, by J. L. W. Thudichum, M.D.—Handbook of Law and Lunacy, by J. T. Subben, M.D., and J. H. Balfour Browne, Barrister-at-Law—The Chronic Diseases of Women, by Louis Michels, M.D.—The New Patent relating to the Sewage of Towns, by Mr. J. Brough Pow—Bromide of Potassium, etc., by E. H. Clarke, M.D., and R. Amory, M.D.—The Tendency of Disease to Cause Disease, by W. H. Spencer, M.A., M.B.—Forty-sixth Annual Report of the Massachusetts Eye and Ear Infirmary—No Case against the United Kingdom Alliance and the Permissive Bill: a reprint and review of a pamphlet entitled "The Case against the United Kingdom Alliance and the Permissive Bill"—Injuries of Nerves and their Consequences, by S. Weir Mitchell, M.D.—Man in the Past, Present, and Future (from the German of Dr. L. Büchner), by W. S. Dallas, F.L.S.

APPOINTMENTS FOR THE WEEK.

May 18. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Association of Medical Officers of Health, 7½ p.m. Dr. Letheby, "The Facts elicited by the present Epidemic of Small-pox, in reference to the Rise and Progress of the Disease, its Average Mortality, its Epidemic Periodicity, and the Prophylactic Influence of Primary and Secondary Vaccination."

Royal Institution, 3 p.m. Prof. Roscoe, "On the Chemical Action of Light."

20. *Monday*.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

21. *Tuesday*.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

Pathological Society, 8 p.m. Dr. Burdon-Sanderson, "Microscopical Specimens in illustration of his recent Demonstration on Pyæmia." Dr. Crisp, "Recent Specimens of Tubercle in a Fowl;" "Disease of the Cerebellum; Intussusception in an Infant." Mr. Wood, "Pelvis and Genital Organs of an Adult Hermaphrodite." Mr. Holmes, "Tumours of the Scalp; Melanosis of the Penis." Dr. Moxon, "Lymphoid Cancer of the Small Intestine." Mr. Hulke, "The Parts after Operation for Cancer of the Penis." Mr. Gay, "A Cyst; Sequestrum from the Tibia." Dr. Wiltshire, "Enlargement of Clitoris and Labia Minora." Mr. Arnott, "Multiple Exostosis." Mr. Sutton Townsend, "Ossified Aneurism of the Left Ventricle of the Heart." Dr. Bristowe, "Cardiac Disease, with Embolism of the Middle Cerebral Artery." Dr. M. Mackenzie, "Cancer of the Larynx, with Enlargement of the Thyroid Body." Mr. Sebastian Wilkinson, "Malignant Disease of the Eyeball, Brain, and Cranium." Mr. W. Adams, "Exostosis removed from the Head of the Tibia; the Two Legs of a Club-footed Child, showing good Union of the Posterior Tibial Tendons." Dr. Hawkes, "An Intracranial Tumour." Mr. Morris, "Hydatid Cyst between Diaphragm and Liver; Myxoma of Breast."

Royal Institution, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

22. *Wednesday*.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Society of Arts, 8 p.m. Meeting.

23. *Thursday*.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 3 p.m. Prof. Tyndall, "On Heat and Light."

24. *Friday*.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Clinical Society, 8½ p.m. Dr. Broadbent, "Left Hemiplegia, with Convulsions and Coma." Dr. Andrew, "On a Case of unusual Daily Range of Temperature associated with Vegetations on Mitral Valve and Infarctus of Spleen." Mr. Cooper Forster, "Case of Irritable Bladder in a Child." Mr. T. Smith, "Case of Gastrotomy." Mr. MacCormac, "Case of Gastrotomy."

Quekett Microscopical Club, 8 p.m. Meeting.

Royal Institution, 9 p.m. Prof. Clifford, "Babbage's Calculating Machines."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 11, 1872.

BIRTHS.

Births of Boys, 1117; Girls, 1006; Total, 2123.
Average of 10 corresponding weeks, 1862-71, 2079·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	647	603	1250
Average of the ten years 1862-71	691·1	651·9	1343·0
Average corrected to increased population	...	...	1477
Deaths of people aged 80 and upwards	...	...	55

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	7	2	2	11	1	2	1	1
North ...	751668	17	7	6	3	22	2	5	...	3
Central ...	333887	1	2	1	1	10	...	2	2	2
East	638928	4	9	...	1	17	...	2	2	2
South ...	966132	13	10	1	2	23	1	4	3	2
Total	3251804	39	35	10	9	83	4	15	8	10

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·557 in.
Mean temperature	47·2°
Highest point of thermometer	66·1°
Lowest point of thermometer	34·6°
Mean dew-point temperature	41·3°
General direction of wind	W.S.W.
Whole amount of rain in the week	0·85 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 11, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending May 11.	Deaths Registered during the week ending May 11.	Temperature of Air (Fahr.) Highest, during the Week.	Lowest, during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·4	2123	1250	66·1	34·6	47·2	8·44	0·85	2·16
Portsmouth ...	115455	12·1	66	47	60·0	33·8	46·9	8·28	0·62	1·57
Norwich	81105	10·9	46	33	59·2	33·0	46·6	8·11	0·50	1·27
Bristol	186428	39·8	99	56	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	51	32	58·0	35·8	45·3	7·39	1·07	2·72
Birmingham ...	350164	44·7	285	132	60·2	36·6	46·0	7·78	0·89	2·26
Leicester	99143	31·0	82	47	60·7	34·7	47·0	8·33	1·18	3·00
Nottingham ...	88225	44·2	63	44	61·8	32·4	46·8	8·22	0·99	2·51
Liverpool	499897	97·9	365	247	54·3	40·0	45·5	7·50	0·69	1·75
Manchester ...	352759	78·6	256	182	55·2	36·0	43·9	6·61	1·06	2·69
Salford	127923	24·7	126	59	54·3	34·5	44·1	6·73	1·82	4·62
Oldham	84004	20·2	50	32	...	...	...	...	...	...
Bradford	151720	23·0	134	62	56·3	46·5	50·6	10·33	0·59	1·50
Leeds	266564	12·3	250	141	56·0	38·0	46·6	8·11	0·41	1·04
Sheffield	247847	10·9	158	98	55·2	37·0	45·7	7·61	1·10	2·79
Hull	124976	35·1	93	46	...	...	...	...	...	...
Sunderland ...	100665	30·4	64	49	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	97	68	55·0	37·0	44·4	6·89	0·68	1·73
Edinburgh	205146	46·3	132	116	57·0	54·0	44·6	7·00	1·10	2·79
Glasgow	489136	94·8	415	268	...	...	...	...	...	...
Dublin	310565	31·9	184	187	59·5	33·5	47·2	8·44	0·51	1·37
Total of 21 Towns in United Kingd'm	7393052	34·0	5142	3196	66·1	32·4	46·2	7·89	0·88	2·24

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·56 in. The highest was 30·07 in. on Friday evening, and the lowest 29·22 in. on Tuesday afternoon.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2456 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

LECTURES ON THE PRINCIPLES OF THE TREATMENT OF FEVER.

By Dr. LIONEL S. BEALE, F.R.S.,
Fellow of the Royal College of Physicians; Physician to King's College Hospital.

Lecture IV.

Of the Action of Stimulants in Severe Cases of Febrile and Inflammatory Diseases, and of the Principles upon which their Administration is based.

Although probably every Practitioner will admit that some cases of febrile disease will make a good recovery without being subjected to any Medical treatment whatever, few will be disposed to deny that, even in the mildest attack, judicious Medical care is of advantage to the patient. And while it is of the utmost importance for the proper management of the case that we should learn as soon as possible whether it is likely to become severe, it is clear that only the well-informed Practitioner, who has watched the patient from day to day, will be able to form a correct judgment concerning so important a matter. In slight cases of fever it is not necessary to prescribe any form of alcohol, but, as has been already intimated, in severe cases it is sometimes desirable to give a considerable quantity of stimulant, and there is good reason for the conclusion that in some instances life has been saved by the administration of very large quantities of brandy or whisky. It has been found that persons suffering from fever will bear alcohol without any narcotic intoxicating effect whatever being induced. It has been demonstrated that a large amount (upwards of twenty ounces of French brandy in twenty-four hours) does not cause delirium in fever patients, does not produce inflammation of the brain, nor increase bronchitis or pneumonia if present. Neither does the alcohol augment dyspnœa even when very urgent. On the other hand, it is a fact that patients suffering from fever complicated with severe and extensive inflammation of internal organs—lungs, pleura, pericardium—have progressed favourably towards convalescence while taking brandy at the rate of more than twenty ounces in the twenty-four hours.

Nevertheless there still continues much difference of opinion concerning the propriety of prescribing, the utility, and mode of action of this important agent, in severe forms of disease; and although there are few Hospital Physicians who would treat desperate cases of fever absolutely without alcohol, there are many who give only a few glasses of wine to patients for whom some of us would not hesitate to prescribe much larger quantities of stronger stimulants, because we have learnt that by this means the period of convalescence is shortened, and the patient makes a better recovery.

Considering the grave importance of this practical question, it seems to me desirable that it should be fully discussed; and at the risk of being considered tedious, I propose to pass in review some of the facts and observations which, as I pointed out long ago, justify the administration of alcohol, and enable us to form some notion concerning the precise manner in which this substance acts advantageously in some cases of fever. In this way I hope to be able to support and explain the favourable results of clinical experience. Of the scientific arguments many are based upon minute observations of my own extending over many years, and which were carried out without reference to the question at issue, and indeed without the thought that they might at some future time assist in elucidating it.

Objections to the Administration of Alcohol in Inflammation.—It is interesting, if in some respects painful and depressing, to study the wonderful alterations which have taken place in our views concerning the nature and treatment of important general pathological changes. The process called *inflammation* lies at the root of many of the disorders—acute and chronic—from which civilised man and the higher animals suffer. Inflammatory action is, as it were, the point round which Medical theories revolve, and differences regarding the nature of the phenomena comprised under inflammation have led to divisions upon the most important questions of practice, and have caused the greatest differences of opinion regarding the proper treatment of disease. Inflammation is a subject which always excites intense interest, and even now the nature of the changes taking place cannot be discussed without much feeling. The calm necessary for the steady prosecution of scientific discovery is not unfrequently disturbed by the vehemence and warmth of debate as to the proper interpretation of observed facts.

The term "inflammation" involves increased action; and in all inflammations it is true that there is increased action. In order to combat this undue action and reduce the burning activity of the inflammation, we used to be taught to give remedies which depressed the heart's action and reduced the patient's strength. But it has long been observed that many forms of inflammation are only seen in systems already reduced and exhausted by disease, misery, or privation. There are many cases in which frequency of pulse, violent delirium, extreme prostration, and all those symptoms known to accompany extensive inflammatory action, are associated with a general state of the system which can hardly be made lower than it is without great risk to life. Nevertheless, with such confidence was the truth of the old combustion theory of inflammation believed in and taught, that the efforts to quench the fire or to moderate its intensity so absorbed the attention of the Physician, that there was danger of losing the patient ere efforts employed to check the disease could prove successful.

Oftentimes in Medicine and in science have facts been explained by theories which had never been deduced from the results of experiment; and when new facts opposed to a theory had been demonstrated, men have sometimes said the facts could not be true, and have persisted in acting upon the theory; at the same time appealing to the dogmas upon which the theory was based to confirm them in the action which, it is to be feared, they had already determined to take. In days long gone by, stimulants had from time to time been given by intelligent Doctors, in low conditions of the system accompanied by local inflammations; and in many cases when the patient felt better after taking wine, Practitioners in olden time have even allowed a repetition of the practice, although they felt conscious it was against what was regarded by them as sound principles of treatment which they dared not doubt. The favourable action was ingeniously explained by the discovery of some idiosyncracy or peculiarity in the constitution of the individual patient, instead of being attributed to changes consequent upon the action of the stimulant upon the phenomena of a particular abnormal state.

Change in Practice.—By degrees, however, it came to be observed that stimulants seemed to act favourably in very many cases in which their administration was quite opposed to theory, and was in direct antagonism with the doctrines then taught; and at last it was admitted that experience was to be trusted, and that the doctrines formerly taught could not be true in all cases. Still more recently scientific observation and experiment have demonstrated that facts which had been appealed to had been misinterpreted and misunderstood, and that a plan of treatment at variance with the one formerly popular, and in harmony with that now followed out, was really indicated. No one who knows what changes are taking place in fever or inflammation would say that he objects to the exhibition of stimulants *because* some kind of inflammation or local fever is present. In fevers, which are in reality but general inflammations, the pulse has been observed by hundreds of Practitioners to diminish in frequency, delirium to give place to calm consciousness, and the feverish state cease while the patient is taking stimulants. Forty years ago such conditions would have been treated by bleeding, calomel, antimony, and lowering remedies.

Dr. Graves, of Dublin, who, like Todd, had been a teacher of physiology, advocated, as long ago as 1833, support in the treatment of fever; and a stimulating system had been carried into practice by Dr. Blakiston during the epidemic of influenza at Birmingham, about the year 1837.(a) But it was reserved for Dr. Graves' pupil, Todd, to carry out this stimulating plan of treatment to its fullest extent, and to apply it more generally. During many of the earlier years of his life, Dr. Todd treated cases of acute disease like most Practitioners of that day; and in his oldest case-books are records of cases of acute pericarditis which were bled and treated by mercury to salivation; cases of pneumonia which were treated by bleeding and tartar emetic; cases of fever in which a supporting plan was very hesitatingly and very imperfectly carried out. Slowly and gradually his treatment was much modified; and at length he became a strong opponent of the doctrines upon which the so-called *proper treatment* of inflammatory action was supposed to be based. Pericarditis and peritonitis were treated with opium without the mercury; stimulants were given, and the lancet was completely laid aside. Pneumonia was combated by counter-

(a) "Clinical Observations on Diseases of the Heart," etc., p. 13.

irritation and soothing poultices, and the skin and kidneys were made to act freely. The strength was supported; nourishing food was given; and if the powers of the patient flagged, brandy was administered, at first in small doses, but in many bad cases it was increased to considerable quantities. Desperate cases of low fever and extensive internal inflammation were treated by very large quantities of stimulants, the amount being varied from time to time according to the symptoms present and the progress of the case; but the proportion was not limited by any inflexible or arbitrary rule.

It is, however, only during the last twenty-five years that we have actually demonstrated that alcohol administered in small and oft-repeated doses does not *excite or increase the inflammatory process, and that inflammation may cease while a patient is taking considerable quantities of alcohol;* but even to this day there remain not a few who are not convinced of the truth of these remarks. Some have fallen into the error of supposing that Practitioners who advocate the use of stimulants in fever, order large quantities in every case. Practitioners have been accused of giving brandy in a routine manner, inconsiderately and indiscriminately. But this is a very grave charge to make, and ought to be supported, by those who prefer it, by reference to special cases. Mild cases of fever and inflammation were treated by Dr. Todd without stimulants altogether, or with very moderate quantities; but as this Physician was naturally desirous of treating as many desperate cases of febrile disease as possible, a very large number of the worst forms of acute disease admitted into the Hospital were placed under his care. The curious argument was adopted by some, that because very large quantities of alcohol were administered in some exceptional cases, equally large doses were given by him in all cases.

Unfortunately the question of stimulation is one which has not always been considered upon its merits only. The zealous opposition to a particular practice upon religious, political, or moral grounds may, without due care upon his part, quite unfit a man for the investigation of the effects of that practice upon the tissues of the living body under the varying circumstances of health, disease, climate, age, rest, anxiety, labour, etc. Such opposition ought to be discouraged.

Objections on account of the large quantity of Stimulants given.—Many objections have been offered to the "enormous amount" of stimulants given; but these objections do not rest upon actual evidence, and the arguments adduced against the system pursued have been satisfactorily answered. It seems never to have occurred to some, who have not hesitated to state the exact quantity of alcohol which in their opinion should never be exceeded, that an amount which might be excessive if given to a person weighing six stone, would be but a moderate dose, and perhaps insufficient, in the case of one weighing three times as much. In this matter it is wonderful that people who pride themselves upon the practical tendencies of their minds, instead of allowing themselves to be influenced by facts and reason, should act as if every individual were exactly alike and had been cast in the same mould. Some persons are better treated without alcohol, while others, suffering from the very same disorder, require a good allowance of stimulant. The difficulties of explaining this and many familiar facts are great indeed—perhaps insurmountable in the present state of our knowledge. Many of us have remarked how readily some persons when exposed to contagion contract the disease, while others altogether escape, or if attacked, progress favourably in spite of circumstances the most adverse. Original hereditary defects affecting the organs of circulation and the nervous system, particularly weak heart, will doubtless account for some of the cases we have observed. There is reason to think that many children who die early might have reached old age if they could have been preserved up to the period of early youth; while there is no doubt that in other instances adolescence, or a still later period of life, constitutes the critical period when exposure to the influence of contagious poison might be more disastrous than at any other time of life. Such considerations must always influence our judgment in determining the proper treatment, especially as regards the quantity of alcohol. In the regulation of the amount of food for prisoners, the inmates of workhouses, Hospitals, and charitable institutions, there is too great a desire on the part of the authorities to adopt uniformity; as if every individual required precisely the same quantity. The consequence is that a diet which is low for some is more than sufficient for others. Some will be half-starved while others will be well fed—perhaps over-fed. Some of our Hospital authorities are painfully inflexible in these matters, and are continually trying to discover a diet that shall equally suit patients of all ages and every kind of disease. The diet-tables are changed every few years, and the Physicians and Surgeons continually blamed for ordering extras.(b) Under the uniformity system it is clear that to the little people and the light weights is accorded a not perfectly fair advantage in the struggle for existence. It is of some importance for the Physician, among other particulars, to take carefully into his consideration, when prescribing and regulating the proportion of food and stimulant, the weight and vigour of the individual patient. For although it is true that in proportion to their weight small animals require much more food than large ones, a heavy man should, as a general rule, have a more liberal diet than a light one; and in apportioning the quantity of stimulant to the sick, this fact must not be neglected. But it must at the same time be borne in mind that by habit and other circumstances some persons have been led to take, and hence require, a larger proportion of food and stimulants than others of the same weight.

In low diseases the quantity of stimulants required during a short period may be very large; indeed, the patient's life seems sometimes to depend alone on the frequent doses of alcohol (occasionally as much as an ounce or even two ounces an hour) which are poured into the stomach and taken up by the blood; and it is remarkable that as long as the case does well the stimulant seems to be absorbed almost as fast as it is introduced into the stomach: a little escapes in the urine, in the breath, and perspiration, but by far the larger portion is used up in the system, and in two or three different ways helps to keep the patient alive at a time when the disease places him in the greatest jeopardy.

It was pointed out more than twenty years ago, that in some cases the period of convalescence was much shortened; in cases necessarily fatal, life was prolonged; and it is believed that many desperate cases of low fever, pneumonia, acute rheumatism, etc., have been saved by the administration of large quantities of stimulants. If a collection could be made of some of the most serious instances of febrile diseases that have recovered under alcohol from the practice of a considerable number of Medical Practitioners, I feel sure that so strong a case would be made out in favour of this mode of treatment that it would be generally adopted. Moreover, there are cases which have injudiciously been "given up" by the Doctor that have recovered under the administration of stimulants, and it has occasionally happened that the delirious state has been relieved by an act performed by the patient in his delirium. Dr. Winn sends me the following interesting remarks in connexion with an instance of this:—"As regards the use of alcohol in disease, I learnt a lesson when a student which I have never forgotten. I was attending the Fever Hospital at Glasgow, a city which was then quite a hotbed of fever, and I went there with my mind fully imbued with the antiphlogistic theories. Imagine my surprise on finding that the chief remedy employed, and successfully too, at that Hospital, in the worst cases of typhus, was whisky in frequent and large doses. I can now recall one case in particular—that of a patient in a state of acute delirium, whose head became quite clear after imbibing a bottle of whisky in about twenty-four hours!"

It may then be regarded as certain, that in a number of cases advantage has resulted from giving very large quantities of stimulants. Several remarkable instances will be found reported in Dr. Todd's "Clinical Lectures";(c) but among the most striking are the two cases already alluded to, which have been recently recorded by Dr. Wilson Fox. Alcohol is the most powerful remedy we possess, and probably the only one by which we are enabled to save life in desperate cases of fever.

Effect of the Imperial Measure.—It is said that since the *imperial* gill has been substituted for the old local smaller measure in the sale of spirits, the number of cases of drunkenness in Glasgow has increased. Though so much larger, "a gill's a gill for a' that" is the popular sentiment.

(b) Surely the time has come when the Medical staff of our great public charities should be permitted to exercise a little more influence in the management of the institutions in which they are the chief workers than heretofore. In some of our London hospitals any single member of the committee, or the secretary, who may be completely unacquainted with disease, and quite unable to judge of the requirements of the sick, exercises more control in the management of the institution than the entire Medical staff. In some cases, the Medical officers are far too much in the position of servants, who are expected to execute the orders given by the authorities under whom and for whom they are supposed to work. It is, however, very doubtful if such relationship between those who manage the institution and those who are responsible for the treatment of the sick is the most advantageous that is possible.

(c) "Clinical Lectures" By R. B. Todd, M.D., F.R.S. Edited by Lionel S. Beale.

ORIGINAL COMMUNICATIONS.

CONSIDERATIONS RESPECTING THE PRODUCTION OF HEAD SYMPTOMS.

By C. HANDFIELD JONES, M.B., F.R.S.,
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The encephalon is, we know, an aggregate of nervous centres having different functions. The hemispheres are the organs of the intellectual functions; the corpora striata, with some associated masses of grey matter, minister to voluntary muscular action; the tubercula quadrigemina to vision; the cerebellum is probably concerned in co-ordinatiog muscular movements; and the several nuclei at the origins of the nerves constitute the centres appropriated to their respective functions. This being admitted, it is of course quite possible that a local damage may have a purely local effect—that no other function may be interfered with than that of the part injured. That this actually occurs we know by the familiar event of hemiplegia from disease limited to the corpora striata, unattended with loss of consciousness. Hæmorrhage in the crus cerebri has the same effect, and so it would seem has extravasation into the thalamus opticus (*vide* Andral, p. 103, and Callender, "Anatomy of Brain Shocks," Nos. 71, 72). Extensive disease of the cortical substance of the hemispheres produces deterioration of the mental faculties. Destruction of the quadrigeminal tubercles causes blindness. Now, in these and like instances the functional disorder is the necessary consequence of the organic lesion. It would be as unreasonable to expect a man to walk with a smashed femur as with a broken-up corpus striatum. It must, however, be postulated that the damage to the nervous centre shall not be very limited, for then its effect may be imperceptible, or nearly so. This absence of symptoms is mostly observed in instances where the lesion has been slowly produced; but Mr. Callender relates the case of a man, aged 27, who died from acute rheumatism without any cerebral symptoms. Yet his left corpus striatum was soft and red (inflamed), and in its anterior ventricular part was an abscess about the size of a small marble, containing ordinary pus. (No. 46.) This hardly reads like a description of a chronic abscess.

What I have said thus far is chiefly by way of preamble. The next point I submit is one which tends to limit and modify the applicability of the preceding to individual cases. It is, I believe, generally admitted; but is often, I think, tacitly ignored; and its full importance has scarcely been recognised by any writers except Andral and Brown-Séquard. The latter has admirably expounded and enforced it in his lectures (*vide Lancet*, 1861).(a) The view I allude to is that of the interdependence of the encephalic nervous centres—the liability of an injury in one to occasion disorder in others. Anatomically regarded, the nervous centres are quite as remarkable for their commissural connexions as for their separation, perhaps more so. Though it is not exactly true that if one suffer all the others suffer with it, yet it is very usual that one or more are thus secondarily or sympathetically affected. And it is very noteworthy that the signs of disordered function in the sympathising centre may be more prominent and demonstrative than those resulting from the original injury. These secondary derangements are, however, less permanent than the primary, and often have only a brief duration. They prove, however, not unfrequently the immediate cause of death, by arresting the action of the lungs or heart. There is great variety in the occurrence of these secondary disturbances in different individuals in whom the same primary lesion occurs: one centre may be attacked in one person, and a different one in another. To explain this inconsistency in the disturbances evoked by similar primary lesions is as impossible as it is to say why dyspepsia will cause a headache in one person, asthma in a second, and palpitation in a third. We can only suppose that the centre which succumbs to the irritation is probably the one whose nutrition is feeblest and most unstable. The proneness of the nervous tissue to take on secondary disorder will be much increased by any cause of general deterioration—as alcoholismus, uræmia, foul air, and the like.

What has been said of the influence of one centre on another seems also to apply to different parts of the same centre. For it is well known that persons may recover from the paralysis or other loss of power caused by a lesion, and live on some considerable time, though all the while, as shown by a later autopsy, the gap made in the centre by the lesion has never been replaced by normal tissue, perhaps remains as an evident cavity. It seems, therefore, that it is not the mere loss alone of a certain quantity of tissue—say of corpus striatum—which does the mischief, but this *plus* some morbid influence exerted on the rest of the centre by the diseased focus. The former is nearly constant, the latter varying. The above statement seems to be borne out by cases where the morbid change takes place so gradually that the part of the centre remaining sound gets, as it were, accustomed to the lesion, and continues to function in its usual manner. Thus a large abscess may form in one cerebral hemisphere and no symptoms appear, while a hæmorrhage of less than half the extent would inevitably cause most serious disturbance.

It may be well now to enter more into detail, and to refer to some particular instances. Let us take first the cerebellum. In Audral's work four cases are given, and three quoted of hæmorrhage into one of the lateral lobes causing hemiplegia of the opposite side. But there is plenty of evidence that such lesion may occur without any hemiplegia. The same authority gives three cases of softening of one lateral lobe of the cerebellum, in two of which there was opposite hemiplegia, while in the third there was no paralysis, but convulsive agitation of the limbs on both sides. Tumours and abscesses produced most constantly pain at posterior part of head, and vomiting. Other occasional symptoms are convulsions, amaurosis, unconsciousness, vertigo, tinnitus aurium, sensory disorder of one side, paralysis of sixth pair. The only conclusion that clinical experience at present warrants is that cerebellar lesion does not produce constantly any special symptom, but may give rise to very various, such as often imply disorder of remote centres.

Hæmorrhage into the pons Varolii usually gives rise to unconsciousness more or less complete—*i.e.*, to paralysis of both hemispheres, coupled with hemiplegia, and irritation or paralysis of the third, facial, vagi, and hypoglossal nerves. The clot need not be very large—one half the size of a walnut will produce complete unconsciousness for sixty-six hours, terminating in death. No other lesion was found at the autopsy (*vide* Pathological *Transactions*, vol. xi., p. 11). But we should not be inclined to expect, as physiologists, that disease of the pons would cause any loss of consciousness, and Dr. Wilks tells us that in disease of this locality there is not necessarily any loss of consciousness. The pupils are often minutely contracted, which must imply a sort of stimulation of the roots of the third pair. But they may be dilated or natural (*vide* St. Bartholomew's Hospital Reports, vol. v., p. 197). Loss of speech and difficulty of swallowing, when present, indicate affection of the glosso-pharyngeal vagi, and hypoglossal nerves, whose nuclei lie in the medulla oblongata. I think it can hardly be questioned that all the nerves I have mentioned have had their function deranged in cases where the lesion did not extend to the medulla oblongata, and so could not have involved the nuclei. In a case related by Dr. Wilks the loss of speech seems to have been rather owing to aphasia than to aphonia, which would imply, according to current views, paralysis of a still more remote centre. In a case recorded in the Pathological *Transactions*, vol. xii., p. 16, besides temporary motor and permanent sensory disorder of the right limbs, indistinct speech, and difficult deglutition, there was material impairment of vision, which persisted during the seven or eight days that the patient survived. The intelligence in this case was perfect, but there was great drowsiness for five or six days, succeeded by coma. After death a clot the size of a pea was found in the posterior left part of the pons, nearly at mid-level, in the line of the tract of fibres leading from the lateral columns of the medulla to the brain. Here the tubercula quadrigemina and the cerebral hemispheres seem to have suffered a secondary paresis.

If the above statements are accepted, it must be concluded that besides the derangements of motion and sensation, which a lesion of small extent and limited to this part may be expected to produce, others also occur which indicate the operation of an influence extending far beyond the seat of primary mischief.

Hæmorrhage into the corpora striata or optic thalami often produces unconsciousness, lasting a few hours, sometimes longer. In Mr. Callender's seventy-first case it lasted four days, ceasing after depletion. Dr. Wilks gives a case at page 179, where the patient remained very stuporous—half-conscious—for eleven

(a) He says, p. 1, vol. ii., "In this introductory lecture I will try to show that the symptoms of disease of the brain, and also of neuroses symptomatic of brain disease—*i.e.*, hemiplegia, loss of speech, anæsthesia, alterations of the various senses, convulsive affections, insanity, etc.—are almost always caused in a manner completely different from that which is universally admitted."

days after he was attacked, and died three days later comatose from softening of the right corpus striatum. There was left hemiplegia. The anterior lobes were adherent to the ethmoid bone, which was diseased. Dr. Hughlings-Jackson relates a case of right hemiplegia, with impairment of intellect continuing several days from softening of the left corpus striatum.

In the downward direction we find, besides motor hemiplegia and more or less sensory, loss of speech (aphonia), facial and lingual paralysis. The aphonia is often very marked, and of considerable duration; the other affections are mostly slighter and more transient.

Now, supposing the lesion limited to one of these ganglia, it is difficult to see how the unconsciousness is to be accounted for, except on the hypothesis of an influence exerted on the connected hemispheres by the focus of disease; and the same explanation must apply, I think, to the paralysis of lower centres, for plenty of channels would still remain open for transmission of volitional impulses from above. The transient duration and incompleteness of these paralyses seem to me very indicative of their dependence on shock and not on organic lesion.

The cerebral hemispheres are the highest and most extensive of all the nervous centres, and it cannot but be of much interest to inquire what effects are produced by lesions confined to them. It seems to be pretty well established that injury of the surface of one of them may produce opposite hemiplegia, consciousness persisting. Mr. J. Hutchinson's statements on this point are of great importance. From observation of a considerable number of cases, he finds that when laceration involves the middle of one hemisphere, there often exists more or less hemiplegia on the opposite side. When the anterior lobes are lacerated, hemiplegia does not result; the posterior are very seldom injured. Hemiplegia from laceration is characterised by loss of sensibility, which suffers but little in the ordinary form. Two cases occurring in Hutchinson's experience are, he says, well-nigh conclusive as to the influence of laceration of the middle lobe in causing hemiplegia. In each of them a man was admitted with a severe compound fracture of one parietal bone, retaining his consciousness, but hemiplegic on the opposite side. In each the skull was trephined, and large portions of bone removed and the dura mater left exposed, so that there was no longer any possibility of local compression. In each case the hemiplegia persisted, and in each the post-mortem showed that the damage consisted in extensive laceration of the brain surface (*vide Medical Times and Gazette*, Feb. 3, 1868). Dr. Wilks (p. 187) records the following highly important case, though, with his wonted candour, he seems to desiderate some further assurance of its absolute accuracy:—The patient was a woman, aged 36, who died with nearly the whole of the right hemisphere in a peculiar state of disease. The whole cineritions substance appeared to be undergoing disintegration. The left hemisphere was healthy. The symptoms were left hemiplegia without conscious loss of power, and some slowness of mental action.

Mr. Hutchinson and Dr. Wilks are agreed as to the possibility of arachnitis of the surface of one hemisphere causing hemiplegia on the opposite side. The latter states that he has seen many cases of unilateral arachnitis without paralysis, as well as some with. In most of those associated with paralysis there existed also injury of the brain, and Dr. Wilks was at first disposed to explain the presence of paralysis by an extension of disease to the centres. He now regards, however, the connexion of hemiplegia with arachnitis as a fact, his own experience being corroborated by Mr. Hutchinson's. In the fourth volume of the London Hospital Reports, p. 53, this excellent Surgeon speaks of hemiplegia as being the usual symptom of arachnitis produced by injury to the head. Dr. Wilks mentions two cases of injury to the head with unilateral arachnitis and hemiplegia. In one, besides purulent lymph beneath the arachnoid, the grey matter was infiltrated with inflammatory products; in the other the brain was reduced to a pulp beneath a fracture, the arachnitis was on the other side, and the hemiplegia opposite.

Sir T. Watson records in his "Lectures," vol. i., p. 333, two cases which afford, I think, additional evidence. They were instances of Pott's puffy tumour after injury of the scalp. In the first there was right hemiplegia succeeding to convulsions of right side, and stupor from which he could easily be roused. The second had incomplete hemiplegia, but no other head symptom until fatal coma supervened. Both were trephined, and the dura mater slit open, but without advantage. Only three drachms of pus escaped from the wound in the first case, where the arachnoid had a thick coating of purulent lymph. In the second the inflammatory exudation seems to have been in less amount. Besides the arachnitis the dissection detected in neither any morbid change in the brain. Sir T. Watson ascribes the symptoms in these cases to pressure from the effused pus and lymph. But I venture to differ from my old master, as I can hardly think that after removing a piece of the cranial wall and opening the dura mater any material pressure could have existed. Moreover, Mr. Hutchinson's observations—especially one related in London Hospital Reports, vol. iv., p. 14—incline me very much to think that too much has been made of this cause, and that symptoms which are supposed to result from compression may often really be due to laceration or concussion. In the case alluded to the upper surface of the hemispheres was hollowed into a cavity capable of holding an adult fist, and filled with pus, yet until forty-eight hours before death he had no paralysis or unconsciousness, but intense headache. Dr. Gibson also relates the case of a man, aged 36, who died twelve days after a fall on his head, having been insensible all the time, with right hemiplegia and spasmodic movements of the left limbs. The autopsy disclosed no disease whatever in the brain except two symmetrical filbert-sized clots in the anterior lobes. He remarks that compression of the brain had no share whatever, or only the very smallest, in causing the symptoms, which were mainly due to concussion (*vide Edinburgh Medical Journal*, 1870, p. 197).

While touching on this matter of injury to the superficial part of the brain, I cannot help alluding to Mr. Cline's case, cited also by Sir T. Watson. Here a man, who had received an injury of the head causing fracture, with depression of one of the parietal bones, was apparently insensible, and lay with flexed fingers and upturned corneæ, dead to the outer world for more than twelve months. As soon as the pressing bone was removed, the eyes and fingers were restored to their natural position, and though at first stupid and incoherent, he soon became rational and well. Alluding to such cases, Mr. Hutchinson says—"The portion of bone depressed must be very large indeed which could cause symptoms of compression. In ordinary cases the extent to which the cranial cavity is diminished by a depressed fracture is very trivial. . . . . In all the cases of extensive depression which I have seen, the so-called symptoms of compression were wholly absent" (London Hospital Reports, vol. iv., p. 13). Now this case of Mr. Cline's, it seems to me, may be very fitly compared with others where the symptoms were not stupor or paralysis, but hyper-excitability and convulsions, and which in some instances have been relieved in the same way—viz., by trephining. Dr. Skae (*Edinburgh Medical Journal*, 1866, p. 684) relates a case of epilepsy complicated with mania, where the maniacal paroxysms lessened in severity, and have for three years ceased, since the performance of trephining, though previously they occurred regularly every month. Mr. Bryant gives (*vide* Pathological *Transactions*, vol. xii., p. 12) another good instance of the same kind. The bones of the skull were diseased, carious, and necrosed, and a distinct nodule of new bone existed on the piece removed by the trephine. The man had epileptic fits and severe and constant pains in the head at the seat of disease, and partial hemiplegia. The operation was attended with immediate relief—the fits ceased directly; all headache and paralysis disappeared. After two months, however, the bad symptoms returned, and death took place. Syphilitic deposits were found in the liver and spleen, arachnitis of the hemisphere corresponding to the external lesion, and diseased bone. A case very similar is given by Andral (p. 1, Spillar's translation). A man, aged 61, died with a fibrous vegetation, of the size of a large nut, on the inner surface of the dura mater. It sank deep into the cerebral substance, which of course it must have irritated. The symptoms were—at first headache, at times insupportable; as this ceased right hemiplegia supervened, both of motion and sensation, and paralysis of the sphincter vesicæ.

In all the above instances, including Mr. Cline's, I submit the idea of *irritation*—of which more presently—is that which most correctly expresses the nature of the morbid action. In Cline's case, in fact, as well as in the first of Sir T. Watson's, the spasmodic or convulsive symptoms decidedly point in this direction. In cases of arachnitis attended with hemiplegia, I think the paralysis may be ranked with convulsions, contraction of one of the limbs, delirium, head pain not corresponding to the seat of the lesion, dilatation of pupils, coma, and, like them, may be ascribed to an irritation proceeding from the diseased part and acting injuriously on connected centres. There can be no doubt that morbid action does exist, and that it does injuriously affect other regions besides its own locality. Very limited mischief may have an extensive *retentissement*. I have

seen a patch of pus on the arachnoid at the left margin of the cerebellum cause severe convulsions and coma, speedily proving fatal. Abercrombie's twelfth case, page 55, is also a good example.

Nothing advanced above is, of course, intended to question the established doctrine that pressure, when considerable, is an efficient cause of coma and general paralysis. I only express the opinion that many cases to which this view has been applied are better explained on that of irritation. A large mass of blood between the bone and dura mater may be taken as a type of a pressure-producing cause, roughened and spiculous bone as a type of an irritating. Tumours may belong in different instances to one or other class.

It is a remarkable thing that in some cases of ruptured meningeal artery, with effusion of blood between the bone and dura mater, there may be partial hemiplegia without loss of consciousness. As Dr. Wilks says, if these cases are to be explained on the view of pressure, the persistence of consciousness must be attributed to the function of the other hemisphere remaining intact. This might be favoured by direction of the pressure, lateral being stated by Mayo to be without effect, though vertical produces stupor. Mr. Hutchinson, however, says that "pressure on any part of either hemisphere of the cerebrum will certainly, after a while, influence the other also." Local pressure for a short time, however, may have local effect, as in a case recorded by this Surgeon, where there was manifest left hemiplegia six hours after the injury, but next day it had completely passed off, and he died in asthenia on the eighth day. At the post-mortem three ounces of blood were found effused into the right sphenoidal fossa. In any case of injury the *gradual* supervention and increase of stupor and paralysis points strongly to their dependence on effusion of blood.

The following case may be related here as illustrating the remote effects of hæmorrhage into one hemisphere:—A lady of middle age got headache, and the following night left her bed, seemed mazed and lost, and soon became semi-comatose and speechless. She survived five days, and died comatose with relaxed limbs. A considerable effusion of blood was found in the cortical substance of posterior part of left hemisphere, breaking up its tissue in a longitudinal tract running from behind forwards close by the longitudinal fissure. In its immediate vicinity there were numerous spots of capillary apoplexy. All the rest of the cerebrum, including the basal ganglia, appeared healthy. A nut-sized patch of pale red softening was found in posterior part of cerebellum. It seems to me impossible to account for the stupor increasing up to fatal coma, as well as the speechlessness, by reference solely to the local lesions, without having regard to the influence they exerted on the sound hemisphere and the medulla oblongata, or the third left frontal gyrus.

(*To be continued.*)

ON THE USE OF THE TRACHEAL TAMPON.

By F. JUNKER, M.D.,
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(*Concluded from page* 511.)

THE method of plugging the trachea is accomplished in the following manner:—The patient having been brought under the influence of the anæsthetic, tracheotomy is performed either above or below the thyroid gland, according to the nature of the case. The incision must be large enough to admit the tube with the collapsed tampon; the division of the cricoid cartilage may therefore become requisite in the supra-thyroid operation. The edges of the tracheal wound must be secured by silk threads, by means of which the trachea will be drawn forward and the wound kept patent whilst the tube with the collapsed plug is introduced. This having been achieved, the threads are slightly loosened, and the point of the indiarubber balloon fixed to the inflating tube of the tampon, which is then expanded by gentle compression of the balloon. A certain resistance shows that the plug is sufficiently filled and in close apposition to the walls of the trachea, in which case the tube will become less movable, and will, when slightly drawn forward, recoil. The inflating tube, after having been closed with a small metal clamp, should then be secured to the tape which fixes the cannla round the neck.

If the plugging of the trachea has been resorted to as a preliminary act to another operation, the administration of the anæsthetic is continued through the tracheal wound. This may be accomplished in various ways. Dr. Trendelenburg uses a funnel-shaped instrument of japanned tin. Its outlet is furnished with an indiarubber tube stiffened by a spiral wire of about two or three feet in length, which, by means of a cone-shaped nozzle, fits into the external aperture of the tracheotomy canula. About one centimetre above the rim of the inlet of the funnel a raised wire frame covered with dimity is fixed, on which the anæsthetic fluid is dropped. A circle of small holes drilled around the edge of the funnel assists the admission of fresh air. (The complete apparatus may be obtained of Messrs. Krohne and Sesemann, 8, Duke-street, Mancheater-square, W.) The narcosis may also be kept up by holding Esmarch-Skinner's well-known mask to the aperture. With great advantage also the apparatus may be applied which I had devised several years ago for the administration of bichloride of methylene, and which is described in No. 920 (vol. i. for 1868) of the *Medical Times and Gazette*, and had been exhibited at the meeting of the St. Andrews University Association in 1867, and fully described in its *Transactions*.

This apparatus serves both for the administration of chloroform and of bichloride of methylene. It has since been adopted in the Samaritan Free and other Hospitals, and by Mr. Spencer Wells in all his operations, and has also been introduced abroad. By connecting the tube which conducts the air saturated with the anæsthetic vapour to the aperture of the canula instead of to the usual mask, all the advantages of this method of administering anæsthetics may be obtained in tracheal narcotisation.

In all cases of plugging the trachea preliminary to facial or pharyngeal operations accompanied with profuse hæmorrhage, Dr. Trendelenburg's tracheal narcotisation is of twofold advantage: the movements of the operator will not be encumbered by the apparatus, and, what is of the highest importance, the aperture of the canula will be completely protected against the entry of blood flowing down the neck. It will be, therefore, desirable to leave the care of the tampon, after its inflation, entirely to the assistant who is in charge of the anæsthetic. No fears need be entertained of the slipping of the plug or tracheotomy canula. The tampon, when sufficiently inflated, will safely be lodged within the trachea, and nevertheless, from its elasticity, permit a certain degree of movability of the tube in every direction, which is necessary lest rapid movements of the patient's head should interfere with its safe adjustment. A simple experiment will show this. If the instrument is introduced into a glass tube of the diameter of the trachea, and its plug sufficiently expanded, and water put into the glass tube above the plug, the tracheotomy canula with the internal wall of the tampon may be seen making considerable movements upwards and downwards, without the external wall of the tampon being displaced from the wall of the glass tube or a drop of water passing between them.

Before the removal of the plug after the operation, the larynx—viz., the portion of the trachea above the tampon—has to be carefully irrigated with warm water by introducing into the trachea a delicate curved nozzle of the irrigator-tube through the superior angle of the tracheal incision. A portion of the blood accumulated in the larynx will be discharged through the glottis. Larger clots, which cannot pass the rima glottidis, will become loosened by the jet of water, and may be removed through the incision by means of a dressing-forceps after the withdrawal of the plug. Smaller clots may remain without danger in the larynx. They will be easily expelled by coughing, as sometimes occurs with large masses of mucus in acute laryngitis. Besides, the presence of clots of coagulated blood in the air-passages is not so much to be feared; it is only the fluid blood when passing into the smaller bronchi and into the alveoli, and coagulating there, that is fraught with danger. The plug before its removal must be emptied of its contained air by opening the clamp, after which it may be easily pulled out with the cannla.

After cleaning the larynx thoroughly of all the blood-clots, a common tracheotomy tube is introduced, and the silk threads are withdrawn from the wound. The canula ought to be worn until all danger of hæmorrhage has passed away and the internal dressing of wound removed. After this the tracheal wound may be allowed to heal up in the usual way.

Dr. Trendelenburg gives the following indications for the use of the tracheal tampon as a preliminary operation:—

1. In all larger operations within or at the larynx: *a*, In laryngotomy after Desault; *b*, in the removal of large polypi from the larynx through the mouth; *c*, in subhyoid laryngotomy after Malgaigne, when the tumour has to be removed through the incision.

2. In all operations in the buccal and pharyngeal cavities in

which sudden and profuse hæmorrhage is to be apprehended: *d*, In resection of the superior maxillary bone; *e*, in resections of large portions, especially of the body of the inferior maxillary bone; *f*, in extirpation of larger naso-pharyngeal polypi.

Here I may suggest that, in the operation of complete or partial removal of the tongue, in which the patient, having half rallied from the influence of the anæsthetic, struggles and renders the arrest of the generally very profuse hæmorrhage still more difficult, and where the dangers from inspiration of blood are eminent, the use of the tracheal tampon and the administration of anæsthetics through the tracheotomy canula would certainly prove a great boon both to the operator and the patient, and may likely become a legitimate practice.

In other operations in the buccal cavity in which hæmorrhage is not so sudden as to bring on asphyxia from inspiration of blood, nor so profuse as to require a speedy termination of the operation on account of the dangers arising from the loss of blood, and in which the blood can either be mopped out with sponges or expectorated, as in uranoplastic, the plugging of the trachea is only indicated when the administration of anæsthetics is to be continued during the whole time of the operation.

The tracheal tampon may perhaps also be of use in the operation for cleft palate in infants, which can only be performed with comparative ease under chloroform. This operation should be performed at the earliest age possible, so that the proper development and growth of the affected parts should not be too long arrested, and the restoration of the normal voice and formation of speech not hindered.

Also, in other difficult operations in the larynx, which are not attended with much hæmorrhage, and which are performed with the aid of the laryngoscope, the tracheal plug may be of great assistance in order to enable the Surgeon to operate under chloroform, and to dispense with the long and tedious practising with the laryngoscope necessary in order to accustom the patient to the use of the instrument.

Besides the temporary use of the tracheal plug-canula during the above-named operations as an auxiliary, there are cases in which this instrument will be found more extensively applicable. Thus, the plugging of the trachea for a lengthened period may become desirable during the after-treatment of all operations and injuries (as in suicides) in which deglutition is impeded, and danger is apprehended from the entry of blood, saliva, pus, or food into the bronchi. Pneumonia, as already mentioned, is frequently the sequel of such cases. A fistulous opening made below the hyoid bone would assist the drainage of accumulated secretions from the pharyngeal cavity. The continued plugging of the trachea, however, affords a far more complete and safer protection to the lungs against the entry of extraneous substances.

Besides the entry of pus and saliva, the intrusion of food into the trachea after resection of the inferior maxillary bone can hardly be prevented, even when the œsophagus bougie is used for feeding. The most careful introduction of the œsophagus bougie may easily produce anti-peristaltic movements, and cause a regurgitation of the contents of the stomach, of which a portion may find its way into the trachea. The following accident, which occurred to one of my former fellow-students, at that time clinical assistant to Professor Skoda at Vienna, will serve to show that this danger is a real one, and may happen under any circumstances. Dr. R——, who, as Resident Physician, occupied a set of rooms above the clinical wards of the Professor, was found one morning dead in bed, with his head hanging over the edge of the mattress. At the post-mortem examination the mouth, trachea, and the bronchi to their minutest ramifications were found filled with the contents of the stomach. It was proved that he had returned about midnight from a supper-party, having been in perfect health, and that when in bed he had been seized with sickness, and that in relieving his stomach its contents had passed into the trachea, and caused death from asphyxia. Similar cases are on record in which drunken persons taken to a police-station have been found dead in their cells the following morning, and in which the cause of death has been due to the entry of vomited matter into the air-passages while in a helpless condition.

In cases of suicide and other injuries such as already mentioned, the following operation may be performed:—The trachea is opened below the thyroid gland by a somewhat larger incision than is usually made in tracheotomy. Through the wound two tampon-canulas are introduced, the point of the one being directed upwards, that of the other downwards, of which every twenty-four hours alternately the superior or inferior plug is inflated. In order not to require too large an incision for the introduction of both tampon-canulas, the superior canula, which drains the fluid from the larynx, and which may be somewhat less thick than the superior tube, should be bent either towards the right or the left side at its greatest curvature. These canulas need not be furnished with a shield, as the inflated tampons will keep them sufficiently firm *in situ*.

The tampon-canula has also been used in the local treatment of diphtheria. Guided by several successful inoculations of diphtheria into the tracheal mucous membrane in animals, Dr. Trendelenburg agrees with those who maintain that diphtheria is a merely local complaint, and he has consequently treated all fresh cases of this disease with local cauterisation. In nine cases which had come under his treatment up to the time at which he read his paper on this subject before the Medical Society of Berlin in 1870, he succeeded in arresting the local progress of the disease after painting the larynx two or three times with a strong solution of muriatic acid (1 to 2). The fact that this very old and apparently correct method of local cauterisation or of the disinfection of the focus of the disease is still so little in favour with a great number of Practitioners may thus be accounted for—that the caustics hitherto used (viz., chlorine-water) have not been strong enough and not applied with sufficient energy. Besides, the infection frequently spreads at a very early period to the posterior surface of the velum and into the posterior nares, where it can only with difficulty be reached with the caustics. When the infection, however, has already extended to the larynx, every method until now employed of local disinfection of all the diseased parts will be of no avail. The local affection of the tonsils is in some cases so very slight that it is often overlooked, and aid is called in only at the last stage of the disease.

In such cases Dr. Trendelenburg's method of thoroughly washing out the buccal, nasal, and pharyngeal cavities, as well as the larynx, with a sufficiently strong disinfecting or caustic solution, after previously plugging the trachea and the œsophagus, might be of advantage. A short report of one of his cases successfully treated in this way will best illustrate this method.

In a child 3 years old, a thick whitish coating was visible on the tonsils and the velum. The right nostril was perfectly plugged by muco-purulent masses, and showed a vividly red seam at the border of the mucous membrane; whilst the left nostril was free. The voice was hoarse, and during the inspiration the characteristic whistling sound could be heard at some distance. Towards evening the dyspnœa, which had been very slight in the morning, increased, and became considerable, although not alarming towards 4 a.m. At 9 a.m., however, the symptoms were so threatening that tracheotomy became urgent, which was performed above the thyroid gland, and the tampon-canula introduced through the wound after some muco-purulent matter had been expelled by coughing. Distinct diphtheritic pseudo-membranes could not be seen. The plug had been moistened previously with carbolised oil (1 to 6), in order to disinfect the trachea as much as possible. After inflation of the tampon, a Heister's speculum was introduced into the mouth, the œsophagus plugged with pieces of sponge secured by thread, and the complete occlusion of both trachea and œsophagus tested by pouring water into the buccal cavity. The little patient continued to be kept under the influence of chloroform, and in a recumbent position, and had his eyes protected by pieces of folded linen, whilst the buccal and nasal cavities were filled to overflowing with a solution of sulpho-carbolate of zinc (1 per cent. of strength). The nozzle of an irrigator filled with the same solution was then introduced alternately into the mouth and both nostrils. The currents thus produced removed large quantities of membranous shreds and muco-purulent matter from the fauces, and especially from the right nostril. After having in this manner continued irrigation for about five minutes, and the fluid then running off perfectly clear, the solution of zinc was drained off by raising and bending forward the patient's head. The cavities were then freely irrigated with clean water in a similar manner for a few minutes longer, and both the plugs removed from the trachea and œsophagus. During the following few hours the child was rather restless—tossing about on the bed, probably from pain in the mouth and from increased secretion of saliva. There was very little coughing, however, and the respiration and deglutition were perfectly easy and unembarrassed. On careful examination of the fauces the following morning, large deeply excavated ulcers with small greyish patches in the centre were still found on both tonsils. These were painted with a weak solution of muriatic acid. Except a strong

capillary injection and a few minute denuded spots on the velum, nothing abnormal was noticed. Thenceforth the patient's condition continued to improve rapidly. It was possible to remove the tracheotomy canula on the sixth day. The wound, which at this early period already showed healthy granulation and perfect absence of diphtheritic membranes, was completely united on the fourteenth day. Absorption of carbolic acid could not be traced in the urine. In this case nasal diphtheria—one of the most dangerous forms of the disease—had already commenced. The favourable result will show that this method of treatment is both practicable and safe. Of course tracheotomy ought not to be delayed until the disease has already spread into the bronchi, and must be performed at an early period, as soon as the commencement of dyspnœa, stridor, and aphonia indicates that the process has involved the glottis, especially in older children, in whom alarming dyspnœa sets in much later.

In another case, in which, after tracheotomy, a membranous cast of several inches in length was expelled from the trachea during the act of coughing, and which was treated in the same manner, the air-passage was already affected, and death occurred on the third day after the operation from extension of the disease.

Here it may be observed that in children in advanced stages of the disease with great dyspnœa and cyanosis, and where the extremities are cold, tracheotomy may be performed without anæsthesia, the little patients being already under the narcotic influence of the hyperarbonised blood. They will lie quietly, and bear the incision without indicating any sensation of pain.

It will be found advantageous to place a thin indiarubber tube above the tampon-canula, in order to irrigate the larynx from below. After tracheotomy, even when the dyspnœa resulting from occlusion of the glottis has been relieved, the rima glottidis may remain spasmodically closed by reflex action, owing to contact with the fluid from above, in cases in which the anæsthesia is not very profound. In such cases the larynx would not be completely disinfected unless direct irrigation from below were had recourse to. Even strong disinfecting fluids may be used without danger, provided copious irrigation with clean water be afterwards applied.

Instead of using sponges for plugging the œsophagus, an indiarubber tube of ten centimetres in length, and closed at its apex, may be introduced by means of a blunt-pointed bougie, and inflated afterwards. Attempts to plug the trachea in the local treatment of diphtheria without previous tracheotomy, in imitation of the old French method of catheterisation of the larynx, by furnishing the larynx-catheter with a plug, have failed owing to the great inconvenience in applying it and the imperfect occlusion produced.

Bearing on the treatment of diphtheria and croup, I may mention a new mode of treatment—viz., by inhalations of bromine—lately practised abroad with considerable success. It was suggested by the discovery that diphtheritic membranes are more readily dissolved by bromide of potassium than by lime-water or any other agent usually applied for this purpose.

The administration of this remedy is easy and simple: a sponge, saturated in a solution of bromine and bromide of potassium (one grain of each to the ounce of distilled water), is placed within a funnel-shaped piece of cardboard, which is held in a similar manner as in the administration of chloroform, close to the mouth and nose during five to ten minutes every hour or half-hour, according to the urgency of the case. These vapours are well borne by the patient, even by infants under one year old.

London.

COMPLICATIONS OF PREGNANCY.

By FRANCIS R. HOGG, M.D., R.H.A.,
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Out of 750 recent personal inquiries, seventeen women who gave birth to sixty-six children, of whom forty-one so far survive, stated that they suffered from hæmoptysis in the early months of pregnancy. Several were the youngest of large families; three had phthisical and eight asthmatical histories; nearly all married early. In three instances the labours were associated with hæmorrhage, in four the placenta adherent, in three the presentation footling. Several had variola when young—in three instances a second attack. Others had ague, pneumonia, bronchitis, or rheumatic fever before marriage. One phthisical woman, inclined to hæmoptysis during pregnancy, bore five healthy children, then aborted twins at three days' interval. In a former pregnancy she applied eroton oil to her chest, and the child showed the characteristic eruption. Coincident often with the straining of morning sickness, most of the women state that hæmoptysis ceased at quickening, but in three instances this complication only occurred between the seventh and ninth month. One woman, aged 40, commenced to menstruate at 19, married at 20, spent fourteen years in India, was there affected with dysentery, and, as a rule, during the early months of six pregnancies suffered from ague as well as hæmoptysis, and invariably after delivery had Peshawur fever in addition to mammary abscesses. Out of six children three survive.

Hæmorrhage.—Endeavouring to separate instances of menstruation, out of 700 inquiries seven women confessed to attacks of uterine hæmorrhage, each succeeded by milk fever. One generally had mal-presentation, such as hand or foot; another three face presentations; a third hand presentations, each labour hæmorrhagic.

Epistaxis.—One, occurring frequently; the labour rapid, placenta adherent, child alive. Menstruates during lactation. Before marriage had typhus.

Jaundice.—Two. One in seventh month, child alive; inclined to abort; children all weakly; had typhus before marriage. The other, a dyspeptic dressmaker, inclined to neuralgia and ophthalmia, her sisters epileptic; states that jaundice, running on from sixth to ninth month, subsided after delivery; the child stillborn.

Mammary Abscess.—One, fourteen days before delivery; attributed to cold.

Ague.—Out of 700 inquiries, eight Irishwomen, inclined also to hepatitis, contracted in India; only one aborted. The condition subsided after delivery, but the children invariably inclined to convulsions. My impression is that fœtal monstrosities have something in connexion with ague—that infantile ailments of the spleen are contracted in utero, and that ague is lost by transfer from mother to child.

Dysentery.—Three. One in India; the children born prematurely; inclined to eczema. Another in New Zealand, contracting disease at quickening, the labour lingering; hand presentation; stillborn child. The third at the Cape, aborted.

Variola.—One at Christmas in India; the nearest case three miles off; no other person affected. Recovered fourteen days before a natural labour; child healthy.

Scarlet Fever.—Two. One at six months, recovered before labour; the other at seven months, contracted from her own child, only ill fourteen days. In both, children unaffected.

Measles.—One in eighth month of sixth pregnancy at Peshawur; recovered before labour; child unaffected.

Typhus.—One in seventh month; slight attack.

Remittent Fever.—Two. One at the Cape in the eight month; labour hæmorrhagic; milk fever; child alive. The other in England at the fourth month; labour lingering; child dead; pleurisy supervened.

Simple Fever.—Three. Continued in one after delivery.

Pneumonia.—Five instances. One in New Zealand at fifth month; severe attack; labour hæmorrhagic; child alive; puerperal mania, five months deluded with the idea of being dead. As a rule the others had tedious labours; adherent placentæ.

Convulsions.—Seven instances, all of whom had scarlet fever severely. Four were genuine epilepties; one had two attacks weekly, each lasting two hours, the patient, forewarned, retiring to bed; the labour attended with hæmorrhage; the child alive. Another had one convulsion at quickening, repeated convulsions in a three days' labour; no bad result. A third at quickening, occasionally after, and during a two days' labour; the child dead; milk fever; mammary abscesses; has lost three out of five children from convulsions. A fourth had one attack at quickening, but no more. The fifth had one attack a week before delivery; no bad result. The sixth attacked two months before delivery; child stillborn. The seventh, attributing epilepsy originally to fright of insects, states that she menstruated up to quickening, then had occasional convulsions after; labour tedious; child dead; has lost two out of three children through convulsions.

Hooping-cough.—One, a nervous inflammatory subject, who underwent every complaint (this included) during infancy. Married at 15; had Maltese and Indian fevers. When three months pregnant with fourth child went into quarters at Shoeburyness lately vacated by a family suffering from hooping-cough, which she contracted. The attack all through pregnancy occurred every hour daily, lasting ten minutes, and associated with epistaxis, vomiting, diarrhœa, hernia, loss of power over the bladder. Easy labour; cough subsided; child unaffected.

An unhappy woman, now pregnant, affords the following history:—Aged 32; is the only surviving child of five. Her mother phthisical. Commenced to menstruate at 18; married at 22. Soon fell pregnant; labour natural. Second labour, foot presentation; alive. Third at eight months; shoulder presentation; alive. Fourth natural. After twelve months' nursing, contracted scarlet fever, followed by dropsy, her infant escaping. Fifth labour at seven months; child footling, dead. Sixth labour at seven months; child lived three months. Seventh pregnancy, in sixth month attended with pneumonia; labour at seven; placenta prævia; hand presentation; child dead. Suffers from bronchitis during pregnancy, as a rule.

In a former series of notes, instances of erysipelas, sunstroke, rheumatic and yellow fevers, moon-blindness, and obstinate sneezing were recorded as occurring during pregnancy.

ON TWO RECENT CASES OF POISONING AT MANCHESTER.

By F. CRACE CALVERT, Ph.D., F.R.S.

The late Mr. Harris, Assistant-Surgeon at the New Bridge-street Workhouse, Manchester, having been poisoned by atropine, the stomach, urine, and some of the blood were sent to me for examination. As there have been only few cases reported of death by this alkaloid in a free state, I thought it might be interesting to some of your readers to give an outline of the process adopted for its separation and the tests employed for its detection.

The different substances were respectively heated with a little hydrochloric acid, and then about two ounces of alcohol added, and the solution left thirty-six hours to dialyse. The liquors were then evaporated almost to dryness, a strong solution of potash added, and then shaken up with chloroform. The chloroform solution was evaporated to dryness, and a drop of dilute hydrochloric acid and some distilled water added, and it was again evaporated to dryness. Distilled water was added a second time, and the liquor was ready for testing. The reagents I found the most sensitive were an aqueous solution of iodine, which gives a precipitate with one part of atropine in 20,000 of water; a solution of iodide of mercury in iodide of potassium, which is almost equally delicate; tincture of gall-nuts, also very delicate; and bichloride of platinum and picric acid. These two latter, however, require some time before the precipitate appears, and then it takes the form in both cases of yellow crystalline plates. In solutions much more concentrated than the above I failed to obtain precipitates with either chloride of gold or bromine dissolved in bromide of potassium. The most distinctive test, however, was the dilatation of the pupil of the eye of a dog. All these tests can be tried where very little atropine is present; for in this case not more than two and one-third grains could have been put into the milk of which Mr. Harris partook. He only took part, and it was tasted by two servants who were also made ill and vomited, and a portion was thrown away. I obtained all the reactions in the residues obtained from the blood, two samples of urine, and the contents of the stomach, and also in those obtained from the vomits of the two servants. The dilatation of the pupils of the dog's eyes could in every case be seen, even after twenty-four hours, and, in the case of the urine and contents of the stomach, after seventy-two hours.

In a case of poisoning by strychnine, which occurred a fortnight ago at Hyde, I adopted with very good results the following process:—

I boiled the contents of the stomach with a small quantity of hydrochloric and sulphuric acids, concentrated and agitated with an equal volume of chloroform. The chloroform on separating contained almost the whole of the strychnine. It was then evaporated, and a little hydrochloric acid added to the residue, which was diluted with water and dialysed. The dialysed liquor was evaporated nearly to dryness, and mixed with a solution of potash. This was again shaken with chloroform, which on evaporation left the strychnine in a state of purity. The modification of the bichromate of potash test proposed by Otto gave far better results than the tests as ordinarily employed. His process consists in adding to the strychnine solution a cold saturated solution of bichromate of potash, when a yellow crystalline precipitate is produced. The excess of bichromate is then carefully washed away, and concentrated sulphuric acid added to the chromate of strychnine, when a most intense purple colour is produced, which has a far greater permanence than that obtained in the usual method.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

TUMOUR OF ANTRUM—REMOVAL OF GREATER PORTION OF THE SUPERIOR MAXILLA.

(Under the care of Sir WILLIAM FERGUSSON.)

In January we had the opportunity of seeing Sir W. Fergusson remove a portion of the superior maxilla of a woman for a tumour of the antrum. The operation was performed in the manner recommended by Sir William in his writings and practice. For the following we are indebted to the Registrar, Mr. Roche:—

H. H., aged 57, between eight and nine years ago first noticed a small lump in her left cheek about the size of a hazel-nut. Increased very slowly, and caused little or no pain for some years. About twelve months ago a sanguineous discharge came from the tumour, which had increased so as to be about the size of an egg. This discharge came from a portion which had protruded itself between the lip and the gum in the canine fossa. The tumour since then has increased so as to protrude the cheek, and on admission (December 2, 1871) it was found projecting on the left side of the palate, which it involved, together with the whole alveolar ridge on that side. All the teeth on the left side and behind were gone. It presented also in the canine fossa. There was no crackling on pressing it at any part. The left eye was not displaced. There was a small opening in the posterior projection in the mouth, giving exit to a purulent fluid. This the House-Surgeon enlarged, and pus and gritty particles escaped. He also subsequently made an opening in the canine projection, and gave exit to one or two ounces of pus. After these openings the tumour decreased considerably, and the general health of the woman having improved, Sir W. Fergusson decided upon removing the growth with a portion of the maxilla.

After removal the parts were taken to the museum of the College of Surgeons, and we have obtained the following description from Dr. Goodheart, who examined them there:—

"The tumour measures 2½ by 2½ inches, and except at its posterior part, which had pushed into the pterygo-maxillary fossa, it was covered externally by a very thin layer of bone (wall of antrum). This layer was not attacked by the tumour, neither was a part of the ascending process of the superior maxilla, which was removed with the growth. The hard palate was completely gone on this side, excepting only a very thin external plate; the remainder was replaced by a soft growth, such as constituted the whole mass. On section of the tumour, a large cavity was exposed in its centre, containing a calcareous mass about an inch in diameter. The surfaces of the tumour next to this were sloughy-looking and grey. The soft parts of the growth cut with a smooth section, somewhat like raw potato, and no juice was obtained by scraping. Histologically it is composed of young fibrous tissue with hyaline-like and large spindle-shaped nuclear bodies in places. Some parts of the tumour have a regular pseudo-laminated fibrous disposition of tissue, as if it would eventually become formed fibrous tissue. In other places it is less regularly arranged, with very small hyaline nuclei scattered about. Throughout the tumour are many small calcareous nodules of various shapes, mostly of dark outline and crescentic border, and without any distinct connexion with the tissues amidst which they lie. The calcareous nodule in the centre was made up of acicular crystals of mineral matter, and entangled in its pores a number of shrivelled corpuscles, nucleated and pus-like. Pathologically the growth appears to have been a fibrous tumour growing into the antrum and invading the bone. This subsequently underwent calcareous degeneration to a greater extent in the centre than externally, and then necrosis took place, leaving a sequestrum in the centre of the tumour, with only partially calcified wall around it."

MIDDLESEX HOSPITAL.

EXCISION OF THE SHOULDER-JOINT.

(Under the care of Mr. HULKE.)

A tall, thin woman, aged 35, a housekeeper in a country village, was admitted into Bird ward on March 7, 1871, with sinuses in the posterior fold of the armpit, and scars of others in the anterior fold. The slightest movement of the humerus

on the scapula was very painful, and grating was felt in the joint. The muscles about the shoulder were wasted.

The patient said that the joint first began to be painful about seven years before. For a long time the pain was neither severe nor constant. After three years she went to a bone-setter, Mr. Hutton, who told her the shoulder was out, and handled it very roughly for the purpose of putting it in. After this the pain grew more severe, and soon an abscess burst through the front of the armpit. At this time she entered a Hospital, where the shoulder was galvanised. After seven weeks the abscess closed, and she returned to work.

In February, 1871, the pain again became severe, and another abscess broke in the place of the present sinus.

All the signs pointed to a carious state of the joint, but it was hoped that by giving it complete rest and securing a free exit for the discharge a cure might take place without excision, which she positively declined.

The sinuses were laid open—they were traced to the neck of the scapula; but no sequestrum was discovered here, nor was any opening found in the capsular ligament. Drainage-tubes were inserted, and the arm was fixed.

These measures were followed by improvement, but some weeks later the discharge again increased, and the shoulder became more painful and more swollen. At this time the actual cautery was used with remarkable benefit, and she soon after left the Hospital by her own request, with the joint much less swollen and free from pain. One of the sinuses remained open.

August 28.—She was readmitted with fresh abscesses, and great swelling over the front of the joint. The slightest movement caused excruciating pain. The abscesses were laid open, and the inflammatory swelling subsided considerably.

September 1.—The head of the humerus was excised through a single longitudinal incision over the bicipital groove. The periosteum with the muscular insertions was stripped off before dividing the bone. The caput humeri was thoroughly carious. This was at once followed by relief, and although her recovery was retarded by an attack of bronchitis, she gained a very useful arm. The form of the shoulder resembled closely that of the left one, and there was much less deformity than is usually noticed in cases where the periosteum with the muscular insertion into the humeral tuberosities are sacrificed with the head of the bone. The insufficiency of the deltoid was referable rather to wasting consequent on long disease of the muscle than to injury in the excision.

DRUNKARDS AT LIVERPOOL.—Since the publication of their names in the local press every Monday fewer have gone "the whole voyage." On Monday last the number was only eighty-six, while before Mr. Gladstone's scheme came into operation 200 was about the average number of culprits.

FORTHCOMING CONGRESSES.—Besides the Lyons Medical Congress, to commence on September 18 next, there are several others of interest forthcoming. The International Congress for Ethnology and Prehistoric Archæology, which held its fifth meeting at Bologna last year, is to be held at Brussels from August 22 to August 30. It will be chiefly engaged in examining into ethnological and prehistoric questions relating to Belgium. On October 5 is also to be opened the eleventh Italian Congress of Science and Letters at Rome. The first of these was held at Pisa in 1839. In 1862 the tenth was held at Sienna, when it was decided that no other should be held until the eleventh had been held in Rome—a very improbable event at that time. In 1873 an International Medical Congress is to be held at Vienna.

THE CORRESPONDING MEMBERS OF THE ACADÉMIE DE MÉDECINE.—M. Barth, the President, and his officials have made a most urgent call on these honourable persons to manifest their existence, in order that the list of the Academy may be verified and amended, and the number of vacancies ascertained. It seems they are seventy-five in number, and only thirty-six of them have been polite enough to reply to a circular that has been addressed to them. The Academy is very desirous of knowing whether the silence of the thirty-nine others is to be attributed to negligence, want of politeness, or that painful but very excusable reason, death. Another circular has therefore been addressed to them in peremptory terms, and those who do not reply will be regarded as either resigned or dead, and their places will be filled up from the list of numerous candidates awaiting the honour. The President observed, appropriately enough, that these Corresponding Members ill justify their title by not even replying to the missives of the Academy.

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Medical Times and Gazette.

SATURDAY, MAY 25, 1872.

BÜCHNERISM AND SCIENCE.

IN another page will be found a notice of half a dozen books relating to that kind of border-land where science and religion seem to meet, and which, like other border-lands, is often the battle-field between opposing clans. Foremost amongst these books is one by the well-known philosopher, Büchner, of Darmstadt, which has been translated by an eminent man of letters, and which, from the nature of its contents, is likely to be pretty widely read, even by those who may find it a little shocking. Büchner's views are, as might have been expected, of what is called the extreme school; he repudiates religion and authority, disbelieves a future state with its rewards and punishments, would loosen the tie of matrimony, confiscate a good deal of property, and put a modified egotism as the spring of conduct, where we now put love of God and love of one's neighbour. Well, there is nothing very new in this, and we need scarcely take the trouble to refute it; what we simply desire to state is, that Büchner and those who agree with him have no right to call these views *scientific*, or to pretend that they flow by any sane process of reasoning from any mass of ascertained fact. It is sometimes alleged that Tory parsons, and women who have outlived their loveliness, are wont to regard "science" as an invention of the devil. "See, sir," they may say, pointing to Büchner's book, "how your modern science, Darwinism, and evolution, and parthenogenesis, and all such audacious theories, lead to atheism and revolution."

To comfort such as entertain these fears, we venture to assert that "science" leads to no such results; and that Büchner's book, so far as it pretends to do so, is just as scientific, and no more so, than the romances of "Frankenstein," or "Monte Christo," or "Gulliver's Travels." He gives a very interesting quantity of scientific data, it is true; but between these and the conclusions which he ventures upon in his speculations on the "future of man" there is absolutely no connexion.

A hundred years ago, philosophers who wished to attack religion, government, and property, were wont to rail at the vices inherent in civilisation, and vaunted the virtues of savagery. The noble, wild, untutored Indian—*l'Ingénu*—

was then the type of perfection. The lower classes, too, were represented in the cant of the French Revolutionary writers as simple and austere in their habits, frugal, earning by their toil what sufficed for their simple wants,(a) etc., according to the clap-trap of the time. And if the bottom of society was really better than the top, there was some excuse for turning society upside down.

But what are the scientific data of Büchner? Do they show that rude, untutored man is endowed with heroic virtue? On the contrary, he represents the great mass of the whole human race as but just one shade higher than the monkey; he represents "natural man" as having no shame, no virtue, no natural affection; in fact, almost *totidem verbis*, he gives them the moral and physical qualities that Swift gave to *Yahoos*. He represents them as inherently stationary, or improving by the slowest degrees, unless they are roused and guided by some catastrophe, or by a highly endowed individual who becomes their king or prophet! He gives the most dismal pictures of the earliest members of the human race, as having no organised community, no marriage, no relation between parent and child, no provision for the future, no accumulated capital. He rebukes the lower classes of his own country for their absurd railings against "capital," and for the crude and unworkable communism which they aim at. Such a man, if consistent, would advocate a monarchical or aristocratic government. To advocate universal suffrage would be to give the reins entirely into the most monkeyish hands. He speaks largely of the "State"—says that it ought to distribute property, and help those who need help; he also evidently implies that it is the duty of a minority to attempt a revolution, if they believe it to be for the general welfare. This is Whiggery, which is but one form of aristocracy. When he talks of "law" and "necessity" he introduces metaphysical notions incompatible with the existence of nothing but matter and its forces. Moreover, when he says "that nothing higher or more perfect than man has been produced by Nature, and that it is not only the right but the duty of man to regard himself as the ruler over all existences accessible to him, and to guide and change them as much as possible for his own necessity and purposes," he shows himself a thorough anthropocentric, and quotes the Bible without knowing it.

As for Büchner's speculations on the eternal existence of force and matter, the impossibility of creation, and the non-existence of a Deity and a future state—they are no part of science. Real science flows from what we can see, and feel, and measure, and weigh, and not from speculations on the incomprehensible and transcendental. Every scholar knows these things by heart who has read Cicero "De Natura Deorum." There are well known passages in Cicero "De Senectute" which supply as good answers as can be desired to those who disbelieve in a future state. All these are old vagaries of the human mind, and the notion of tacking them on to modern science is preposterous. We might as well say that the Pyramids were built under Queen Victoria. A man may be an atheist, but he does not get his atheism out of the doctrine of cell development or of the conservation of force.

IRREGULAR PRACTICE.

In a case lately tried in the Home Circuit, irregular practice developed itself in a somewhat remarkable manner. We all know that what are called "practising chemists" do a large trade over the counter, and, when the knife is not to be used, undertake to treat any kind of disease. So long as life does not appear to be in jeopardy, the "Doctor" administers medicines and takes his fee. But when he becomes alarmed, or a fatal result is anticipated, he directs his patient to go to a regular Doctor, who is competent to give a certificate of the death (if death occur), and who thus, as it were, becomes the dupe and the shielder of the quack or chemist. These cases constantly occur, and yet what steps have we taken to prevent illegal practice and protect the health and life of the public? Literally nothing.

The new phase of irregular practice to which we allude developed itself in a trial for breach of promise. The plaintiff was a young woman of respectability, and gave her evidence with great propriety and clearness. The defendant declared he broke off the match in consequence of the unchasteness of the plaintiff, and called in support of his case Mr. Richard Thomas, "a chemist at Dover." This witness swore that he had a considerable practice in treating a certain class of diseases. The plaintiff had been examined by his wife in the latter part of 1870, and he gave her medicine on his wife's report. He told defendant of the occurrence. On cross-examination, he admitted he had told a friend that morning that defendant should settle the case for £200. He also "contradicted himself," as the judge said, "over and over again on material points, and the defendant's case rests upon his evidence." Yet the defendant's counsel, in spite of the hint given from the bench, persisted in going on with the case, and actually called Mrs. Thomas into the box to prove that she had examined the plaintiff. The jury did not think it necessary to trouble his Lordship to go into the evidence. Here is the satisfactory conclusion of the trial as reported in the newspapers:—

"His Lordship (Mr. Justice Quain) observed that it was monstrous to suppose that any young woman's character could be taken away by such infamous evidence as they had heard, and coming from such a source. Although they had very properly altogether acquitted the plaintiff on the foul charge that had been brought against her, yet the fact that it had been made and persisted in to the last was calculated to prejudice her in her future life—not only in getting a husband, but also in obtaining a respectable situation in a drapery or millinery establishment. She was entitled to substantial, but not of course to excessive or vindictive damages.

"The jury found for the plaintiff—damages £300. They added an unanimous expression of opinion that Miss White left the Court without the slightest stain upon her character.

"His Lordship: In that opinion, gentlemen, I entirely concur."

Really there is something appalling in the circumstances of this trial. An ignorant woman, and a man as ignorant, positively swore in a court of justice that a chaste and, as it was proved, respectable woman was labouring under a loathsome disease. Now, we know in some of the discharges of women it is sometimes very difficult to decide, without corroborative evidence, whether they arise from what may be called natural causes or are the result of impure connexion. Men of the profoundest knowledge and of the largest experience would hesitate in some cases from a mere examination to pronounce positively upon what cause such discharge arose. But we have this wife of a "chemist," who after all is probably a mere "drug seller," speaking with unqualified authority on the matter. Surely there should be some "remedy," as the lawyers say, for such a "wrong." But we question whether such a remedy exists.

It is remarkable that the judge did not refer in more specific terms to the evidence of the "chemist" and his wife. Surely it was a fitting occasion for a man, closely connected with two eminent members of our Profession, to make some remarks on the state of the law which permitted evidence like that he characterised as "infamous" to be received at all. But being received, and doing all the mischief that it could, might he not have suggested with propriety an alteration in the law, which enabled perfectly unqualified and ignorant persons to give evidence on a question of science—that evidence having a tendency to ruin the character and blast the reputation of a respectable woman? The jury used a wise discretion in expressing their opinion, "that Miss White left the court

(a) By-the-bye, if any of our readers want a good novel, thoroughly unobjectionable, and giving a capital picture of these times and of this cant, let him get "Mademoiselle de Malepierre," from Hachette's, for a shilling.

without the slightest stain upon her character." But as the judge observed, the charge having been made and persisted in must more or less damage her. Now, can we point to another country in Europe where witnesses like Thomas and his wife would be let "scot free" after such evidence as they gave? It must be recollected that this "chemist" swore that he had a large practice in a certain class of diseases, and yet he had no qualification whatever. This is "free trade" in physic.

THE WEEK.

TOPICS OF THE DAY.

We hear that the Bill which is intended to give to the Society of Apothecaries the necessary powers to join in forming a Conjoint Examination Board for England and Wales is to be introduced into the House of Lords shortly after this Whitsuntide recess, and it is expected that it will be passed in the present session.

A sensational article, entitled "Transportation by Order of Medicine," containing a most unjust attack on the Profession, has recently appeared in the *Pall-mall Gazette*, and was copied into the *Times* of Monday last. The article, one would suppose, must have originated in some personal pique against some one of our leading Physicians. It delineates in a highly coloured description the case of a young couple, of whom the consumptive wife has been ordered to the South of France by some Physician, and paints the miseries and expense which accrue to both of them in consequence. Now, all we have to say is, that under no circumstances can Medical men or men of any other profession be expected to be infallible—all we can do is to advise to the best of our judgment and ability; and that, in truth, there is no Profession which has so much consideration for the means and circumstances of those who consult them as the Medical. If a patient will be honest and tell his Physician that he cannot afford a certain plan of treatment, the Doctor will always be ready to suggest an alternative. With regard to the enormous expense of getting to and living at health resorts, and the wretched accommodation obtained at them, the writer draws on his imagination. The expense of getting to the Riviera is from five to eight pounds, and a patient can live there well in an excellent hotel for ten francs a day. Of course the change may not do all the good that is expected from it; but change to a sunny climate and to a bright scene is often the only thing that offers the smallest hope. All plans of treatment are more or less expensive, and none are infallible cures. This is our answer to the elegiacs of the *Pall-mall Gazette*.

We hear that the Middlesex Hospital is to be closed during the month of August for the purpose of introducing a new system of thorough drainage.

Dr. John Murray has been appointed joint Lecturer on Pathology with Dr. Cayley in the Middlesex Hospital School, and it is intended to appoint in the same School a Lecturer on Psychological Medicine.

Professor Corfield's lectures on Hygiene, at University College, will commence on Tuesday, the 28th inst., at twelve o'clock.

NONE TOO SOON.

It will be remembered that some time since thirty-four Medical students were prosecuted and convicted at Havana on very questionable evidence for "desecrating the graves of Castanon." They were condemned to imprisonment and disgrace. The verdict and the sentence were condemned as unjust and arbitrary, and the authorities were soundly rated. Now the Spanish Government appears at last to be ashamed of its conduct. At all events, the last number of the *Madrid Gazette* contains an amnesty for the culprits, who have been in prison for upwards of six months.

ROYAL COLLEGE OF SURGEONS.

The following is an abstract of the unconfirmed minutes of the ordinary meeting of the Council on the 13th inst.:—

The Secretary reported that he had not had time to complete the report of candidates passed and rejected in the Professional examinations for the Membership in pursuance of the resolution of the Council at its last meeting, but that such report would be ready for presentation at the meeting of the Council in June.

The permission of the Senate of the University of London to hold the Preliminary Examinations of the College in June and December next in the rooms of the University was reported.

The Council adopted the usual resolutions with respect to the meeting of Fellows to be held on July 4 next for the election of Members of the Council (on which occasion Messrs. Hancock and Curling, the Vice-Presidents of the College, will offer themselves for re-election, and the vacancy caused by the death of Mr. Solly will be filled).

The Council accepted with thanks a copy of Rembrandt's picture of "Nicholas Tulp the Anatomist, and his Pupils," and two drawings of diseased bones by J. Koenig, the property of the late Mr. Abernethy, presented by Mr. Henry Spencer Smith.

Moved by Mr. South, and seconded by Mr. Erichsen, and resolved *nem. con.*—"That the anatomical teachers of London and the provinces be requested to inform the Council of the number of bodies received for dissection by the pupils of each school, exclusive of the bodies received for the anatomical lectures and demonstrations, from the commencement of last winter session to the present date.

Mr. Erichsen gave notice of the following motion at the next meeting of the Council, viz.:—"That the Court of Examiners of the College be requested to take steps to ascertain the manner in which 'Practical Surgery' and 'Practical Physiology' have been taught in the different schools in the metropolis and the provinces, and that they report to the Council the result of such inquiry."

THE SANITARY STAFF AT GLASGOW.

The present sanitary staff of the city of Glasgow is, according to the unanimous testimony of the members of the Police Board, both competent, zealous, and efficient. The Medical part of it was reorganised in the year 1869, when to the distinguished Professor, Dr. Gairdner, at the head of it was allotted a salary of £300, to an assistant £200, and to the district Surgeons various sums which raised the whole sum spent in Medical salaries to £740. The service performed during the last two years had been "large and faithful," to quote from the speech of Mr. Ure, one of the members of the Board. The Lord Provost said that Dr. Gairdner had been of immense service to the city; he had not sought them—they had sought him; and only two years ago the staff had been reorganised. All the world out of Glasgow would deeply regret any change that should deprive the Glaswegians of Dr. Gairdner's services. Between the two plans of retaining a first-class man like Dr. Gairdner as responsible superintendent and organiser, under whom the existing curative Medical officers should attend to the sanitary state of their respective districts, and of employing one Physician at £600 a year who should devote his whole time, there is no doubt in our mind that the former is to be preferred. "Sanitary science" is in a very infant state; and in order that it may not get into wrong grooves, it is well that some of those who practise it should keep up their alliance with general pathology and physic.

NEW COTTAGE HOSPITAL.

On Wednesday a Cottage Hospital, erected on the Marquis of Ailesbury's estate at Savernake, near Marlborough, was opened. The Bishop of Salisbury took part in the ceremony, and a distinguished party from Savernake House were present.

DR. STROMEYER'S SPEECH AT ST. THOMAS'S HOSPITAL.

Our readers will agree with us in thanking Mr. MacCormac for procuring us the pleasure of hearing and reading the remarkable speech by Dr. Stromeyer, which we print in this week's *Medical Times and Gazette*. It is not merely the intrinsic gratification afforded us by the veteran orator, whose lifelong devotion to the civil practice of his Profession, varied by service in many a campaign, bespeaks him a master in every branch, but that which arises from the truth, breadth, and candour of his criticisms on our own greatest Surgeons. What keenness of observation and thorough knowledge of human nature mark his sketches of Astley Cooper, Abernethy, and Guthrie! Stromeyer is conservative in two senses—he repudiates interference, though sanctioned by the "schools," when his own experience tells him that it is unnecessary and injurious. Witness, for example, his remarks on trephining, on the treatment of fractures, on the operation for cataract. He is conservative in another sense—in retaining old methods of treatment, spite of a temporary lack of fashion. His remarks on bleeding were warmly applauded, though—so rusty has the lancet and the use of it become—some of his younger auditors seemed as if they knew not the meaning of the old joke about practising bleeding on a cabbage-leaf. But the tide is turning, and the lancet may yet have to be kept sharp. The remarks on starched bandages, and on venous thrombosis as a cause of gangrene and of symptoms like pyæmia, will all be appreciated. But we need not pick out the plums for our readers, who will devour the whole. The oration gives us all the pleasure we should get from a grand picture by Sir Joshua of the life and times of our fathers. We will only add, what English Surgeon is there who could at Hanover or Paris deliver such a piece of word-painting in fluent German or French?

PARIS NEWS.

Unable to give the whole of our Paris correspondent's letter this week, we may call attention to the following extracts:—

"Paris, May 21.

"In my letter which appeared in the *Medical Times and Gazette* of the 4th instant, I noticed the '*concours* for the aggregation,' and gave you a list of the candidates with the subjects of examination affixed to their names. This examination was for the appointment of Sub-professors in Medicine, and the names of the successful candidates will be found in your last week's issue, page 587. I have now to announce the opening of the *concours* for the Surgical and Obstetrical Department, for which there are five vacancies, three for the former and two for the latter, and the following have presented themselves as candidates in Surgery:—MM. Nicaise, Terrier, Delens, Hortelonp, Lucas-Championnière, Auger, and Henri Bergeron. For the section of Accouchement, MM. Chantreuil, Charpentier, and De Soyre. The examining board is composed of M. Gosselin, president; MM. Broca, Pajot, Delbeau, Tillaux, Duplay, and Larrey, members. The Surgical candidates go through the same ordeal as the Medical, and those under notice are now at the 'Epreuves préparatoires,' the subject being: 'La Vessie au point de vue Anatomique et Physiologique.'"

PROPOSED FACULTY OF MEDICINE AT BORDEAUX.

It is reported that M. Jules Simon, the Minister of Public Instruction, has accepted in principle the creation of a Faculty of Medicine at Bordeaux to replace that of Strasburg, and that a commission has been appointed to report upon the project in question. It is also in contemplation to establish a School of Medicine and a School of Pharmacy at Lyons.

PROFESSOR VERNEUIL.

Dr. Verneuil, a well-known Surgeon and academician, and Professor of Surgical Pathology at the School of Medicine, has been appointed Professor of Clinical Surgery in the room of Professor Laugier, deceased. The latter appointment is considered a promotion, as the Clinical Professorship of Medicine or Surgery is the highest attainable by the Faculty in Paris. Up till now these appointments have been obtained according to seniority; but it is in contemplation to abolish the system, and to give them to the most qualified, as it has been objected that the best lecturers are not always the best clinicians.

MURDER OF A PHARMACIEN BY THE PARIS COMMUNISTS.

Our correspondent writing from Paris, says—"The anniversary of the entry of the Versailles troops into Paris painfully reminded me of the dreadful scenes I had witnessed and the unheard-of atrocities committed during the furious struggle between the insurgents and the regular army. Among the melancholy events that then took place I may mention that related of a Pharmacien in the Rue de Richelieu by the name of Koch, who was brutally murdered by the Communist soldiers simply because he refused to help them in raising a barricade in his neighbourhood. Not only did he refuse his aid, but he attempted to lecture them on their conduct, whereupon two of the men attacked him in his own shop. The Pharmacien, however, true to his drugs, kept them at bay with a bottle of sulphuric acid in his hand, which he threatened to bespatter them with if they dared to touch him. The men, finding a dangerous weapon before them, beat their retreat, but soon returned with a reinforcement. The poor Pharmacien, considering it would be useless to resist, was carried out of his shop, and, after a sham 'drumhead' court-martial, was ruthlessly shot in the presence of his wife and children, who implored the ruffians for mercy."

CONDITIONS ON WHICH ENGLISH PHYSICIANS MAY PRACTISE IN FRANCE.

Our Paris correspondent tells us—"With respect to your inquiry as to whether an English Physician residing permanently or temporarily in France can practise among his own countrymen, I was informed, at the Secretary's Office at the School of Medicine, that a person so practising may not be interfered with by the authorities, but he would always run the risk of being persecuted or even prosecuted by others, as it is illegal to practise on French territory without the degree of one of its Universities or special authority from the Government. This latter, the secretary thought, would not, under the circumstances you mention, be refused. Application should be made to the Minister of Public Instruction; and I have to add that, when such permission is obtained, one can practise indiscriminately among the natives as well, and that the same fee (about £51) will have to be paid for the permission as for the degree of M.D."

THE BIENNIAL FESTIVAL OF THE HOSPITAL FOR DISEASES OF THE THROAT.

This biennial festival was held on Wednesday, the 22nd inst., at Willis's Rooms, the Earl of Clarendon in the chair. A large company of ladies and gentlemen sat down to dinner, and a pleasant evening was passed under the Earl's able presidency. Contributions to the amount of £1500 were announced in the course of the evening. The most important announcement was, however, to the effect that the Committee are in search of a more central and convenient site for the Hospital. The present premises in Golden-square are convenient enough, but they are not easily got at. Now, when the Hospital has attained to the rank it has among special institutions, it is much sought after by foreign Doctors who come to see London practice, and it is hardly possible to direct them so as to enable them to reach the Hospital without inconvenience.

SMALL-POX JOTTINGS.

Only two cases of small-pox during the past fortnight are reported in Newington.——There were no deaths last week from small-pox in the Mile-end Old Town district.——Small-pox was on the increase amongst the inmates of the St. Marylebone Workhouse, eight having had to be transferred to the

Small-pox Hospital, as against six the week before.——Four new cases of the disease, all vaccinated persons, were last week reported to the St. James's (Westminster) Vestry.——A Parliamentary return of the number of summary convictions under the Vaccination Act of 1867, for neglecting or refusing vaccination to a child, shows that in the three years 1868-70 they were 1516 in England, only 2 in Scotland, and no fewer than 2872 in Ireland.——In the Aberdeen Small-pox Hospital the return for the week ending Saturday last shows—Total number of cases admitted since opening, 201; number of patients in Hospital, 18; total discharged recovered, 149; total dead, 34.——The deaths from small-pox in the Whitechapel district for the quarter ending March 30 last were eleven.——The fatal cases of small-pox in the metropolis, which in the two previous weeks had been sixty-two and thirty-nine, rose again last week to fifty-four.——Dr. Aldis, of St. George's, Hanover-square, reports for the week ending the 18th instant three cases of small-pox, two of which were removed to the Hospital.——Eight cases, including three deaths, have occurred at a house in Rutland-street. At different times a notice was served, when it was partly cleansed, etc.; but the owner having discontinued to carry out the order, the Committee recommended proceedings to be taken.

TEA DRUNKENNESS.

Dr. Arlidge, of Stoke-upon-Trent, has directed the attention of the public and the Government to an important evil now very prevalent in the neighbourhood of the Potteries, and, we may add, very generally throughout the kingdom. We allude to the excessive use of tea as a beverage. Amongst workwomen this drink is resorted to many times a day, in large and strong doses, often without sugar and milk, and generally accompanied by food of anything but a nutritious character. The results are a derangement of the stomach in connexion with uterine derangements. He says—"I will take this opportunity of remarking upon the lamentable amount of sickness consequent upon the abuse of tea by women of the working classes. Instead of using tea as an occasional beverage they make it a principal article of diet, and drink it usually without milk or sugar several times a day. At most meals bread and butter is the only solid accompaniment. In many cases, doubtless, poverty imposes on them a meagre diet, but even in such the one alluded to might be advantageously replaced by other kinds of food not more expensive." And Dr. Arlidge adds—"Bitter and strong is the agitation at the present period against beer and other intoxicating liquors as the root of all evils, but in my opinion there is room for agitation against tea-drinking as carried on in the way spoken of, for I am convinced that a deterioration of health among the working classes, and a lower vitality in the rising generation, are consequences of the abuse of the beverage in question." Every Medical Practitioner at all acquainted with the habits of the working classes can confirm the accuracy of Dr. Arlidge's remarks. Alcoholic-drinking to excess, like all abuses, is fraught with much mischief, dangers, and miseries of the worst description; but we feel convinced that a moderate and careful use of some pure wine—such as, for instance, claret—is far more conducive to health, and to morality, too, than "teetotalism" such as Dr. Arlidge describes.

OPIUM-EATING IN AMERICA.

It is stated by the *Philadelphia Ledger* that opium-eating has become very general in the United States, and particularly in the west. The Legislature of Kentucky, with a view of checking the practice, has just passed an Act by which, on the affidavit of two respectable citizens, any person who, through the excessive use of opium, arsenic, hashcesh, or of any drug, has become incompetent to manage himself or his estate, may be confined in an asylum and placed under guardianship, as in the case of habitual drunkards and lunatics. It is very doubtful, however, if legislation will effect much good in such a case.

FROM ABROAD.—THE ACADÉMIE DE MÉDECINE DE PARIS.—TRACHEOTOMY BY MEANS OF GALVANO-CAUSTIC—EXPULSION OF A HONORARY MEMBER FROM THE BRUSSELS MEDICAL SOCIETY.

At a recent meeting of the Académie de Médecine, M. Larrey alluded to the utterly inadequate provision made by the State for the purposes of the Academy, which is a State institution. It seems that it only receives the trifling annual sum of 15,000 fr., out of which, besides providing for all its other necessities, it has to pay 5000 fr. to another State institution—the Administration of Public Assistance—for the portion of the Charité Hospital which it is allowed to occupy, having no abode of its own provided. Of course this penurious treatment comes out all the more strongly when contrasted with the large sums lavished by the German Government for the purpose of founding the new University at Strasburg, or as some suppose for galvanising it into a premature display of teaching power. Here of course the political object has to be borne in mind; but for a long time past—long before the late untimely war—the minds of Frenchmen have been painfully excited by contrasting the liberal and even lavish expenditure devoted to scientific institutions, even by the poorer German states, with the paltry sums expended by so wealthy a country as France, so reckless in the disposal of large sums in other directions. It may not be generally known that even from her Faculties of Medicine, after paying the Professors, much more is handed into the national exchequer than would suffice to place the Academy on a satisfactory basis. The immediate cause of Baron Larrey's calling the attention of the Academy again to the subject is the unfortunate condition of its library. This, as regards both its printed and manuscript contents, is a valuable one, and has been enriched ever since the foundation of the Academy by a continued stream of donations by almost every Medical author of repute, while its collection of periodical publications is large. For want of a proper library these various works are obliged to be stowed away in garrets, cellars, and wherever, in fact, space can be found, and the consequence is that some of them are undergoing a rapid process of deterioration by damp and mildew. The President, M. Barth, stated that the present as well as the preceding Governments have been repeatedly addressed concerning the necessities of the Academy. Promises have been made, but nothing has been done, and an appeal to the liberality of the National Assembly seemed the only resource.

M. Cloquet truly observed that the Academy is a national foundation recognised by the State, and frequently consulted by the Government on important questions, and that it surely ought—like the other academies—to be honourably lodged, in place of having to pay a rent for a locality utterly unworthy of it. Professor Chauffard observed that the evil of which the Academy was complaining was one that extended all over France. On every side, in the schools as well as the great scientific establishments, everything was arrested by like miseries from this question of money. Other nations were prodigal in their contributions for the purpose of favouring the progress of science, while here millions were expended on enterprises which he would not stay to characterise, parsimony being the order of the day only when the great interests of science came into question. This is disgraceful, and he could not help loudly expressing his indignation.

Certainly for the last year or so the French have been taking the first steps for remedying evils by the most free acknowledgement of their existence, both by speech and pamphlet; and the formation of a large "French Association for the Advancement of Science" entirely by voluntary subscriptions supplied on a liberal scale, and unconnected with Government aid, is a good sign. At present it is obvious that it is only by volunteer efforts of this kind that any great

reforms can be accomplished, for the Government, in the present warlike *temper* of the country, will be compelled—as in the days of Pitt amongst ourselves—to regard everything as subordinate to the production of gunpowder.

At another meeting of the Académie, M. Verneuil described a new mode of performing tracheotomy. Wishing to avoid the danger of hæmorrhage which so frequently occurs in adults, he determined, in an enfeebled patient, 38 years of age, suffering from phthisis with urgent laryngeal complications, to operate by means of galvano-caustic. The galvanic knife, heated to a dull red, divided the different tissues with ease, the ordinary knife not having been used during the operation. This, although performed with great deliberation, did not occupy more than five minutes. Only a few drops of blood were lost, and none of the usual cough was excited on first opening the trachea. The pain of the operation was not severe, and the canula was removed on the tenth day. All present were struck with the ease with which the operation was executed, but this was to some extent due to the emaciated condition of the patient. Still, the galvano-cautery will always be found a simple and useful means of dividing the pre-tracheal soft parts. There is of course the objection that a somewhat cumbersome apparatus has to be employed, and that tracheotomy is often too urgent an operation to admit of any delay. This objection is only partially true; and the fact that the operation performed in this manner is less alarming and dangerous, may induce resort to it in many cases where tracheotomy would otherwise be neglected.

M. Chassaignac observed that, as hæmorrhage constitutes the great danger in tracheotomy, M. Verneuil's operation calls for attention, although he believes that in less skilful hands it will not prove so successful. The great difficulty is the proper heating of the knife. If this is carried to a white heat it divides the tissues like a bistoury, and hæmorrhage occurs. M. Chassaignac finds the écraseur a more simple means of preventing hæmorrhage. Raising up the skin and other soft parts in front of the trachea, and passing in the curved needle with a chain of the écraseur, the trachea is laid bare without any flow of blood. M. Guérin maintained that *subcutaneous tracheotomy*, which he introduced thirty years ago, is a more satisfactory procedure than either of the above; for, the wound in the skin being at several centimetres distance from that in the trachea (favoured in this respect by the elasticity of the skin in this region), the blood flows externally, and is prevented entering the trachea, its doing this being the source of danger rather than the amount of hæmorrhage.

A short time since we copied from the *Presse Médicale Belge* an astounding table of fees circulated by post, together with his titles, by a consulting Practitioner, who was a Commander of the Order of Leopold and an Officer of the Legion of Honour. The price of the consultation fees varied from 3 fr. to 10 fr., according to the hours (between nine and three) at which advice was sought. If, however, a special hour was fixed or a consultation was held at the patient's house, then the fee mounted up to 20 fr. Vaccinations and revaccinations were performed for 10 fr.; and to those who were even too poor to pay the half-crown fee the Doctor gave gratuitous advice every Monday. From a later number of the same journal (May 12) we learn that this elastic Doctor is Dr. Merchie, who ought at least, from his position, to have had a somewhat higher notion of Professional dignity. He had been formerly an Inspector-General of the Army, and is now in receipt of his pension. Fortunately he had at one time been considered a person of sufficient note to be elected as a honorary member of the most important Belgian Medical Society—the Société Royale des Sciences Médicales de Bruxelles; for this has furnished a means of visiting him with a very creditable expression of Professional opinion. A letter was addressed to Dr. Merchie from the Society informing him that the circumstances above alluded to furnished, in the Society's unanimous opinion, good ground for putting into force the statute which regulated expulsion from that body, but that it was willing to hear what he had to say in his defence. And the curious part of the matter is that the accused does not treat the affair with defiance, but really seems to think he has a defence. To be sure it is but a lame one, as might be expected. He says that he is quite in an exceptional position as compared with any of his *confrères*. He has been a Doctor in Medicine and Surgery for forty years, and has always honourably performed his duties in the army. He is entirely ignorant of the usages of civil practice, and when he retired from the army he thought that he should be doing rightly in turning to advantage the experience he had gained in the Hospitals by setting up as a consulting Practitioner. He therefore opened his *cabinet*, where persons of all classes, even including the indigent, might avail themselves of his advice. He never sees patients at their own houses except in consultation, and therefore cannot clash with the interests of the general Practitioners; and to the patients he sees at his own place he merely gives his advice, and is done with them. What there is in this contrary to "Professional dignity" he cannot for the life of him see; and as to the tariff of fees which he had adopted for his "own private use," what can there be reprehensible in that? His only object in framing it was to make a difference between those who were in easy circumstances and those to whom fortune had not been favourable. "It is a practice generally admitted, and which, in my opinion, has the advantage of placing my patients at their ease and sparing my own delicacy." Is it the very limited publicity which he gave to his scheme that is complained of? But whenever a new tariff of fees is adopted surely it must be made known to the public, "and I cannot see how, in a country like ours, in which liberty and independence constitute the principal prerogatives of a citizen, such an innovation can be regarded as an attack on the Medical Profession."

Such obtuseness as this could only be met in one way, and the Society, after considering this extraordinary letter, and declaring the justification insufficient, unanimously resolved that the name of its writer should be erased from the list of members of the Society.

AN ADDRESS ON

ENGLISH RECOLLECTIONS OF A GERMAN SURGEON.

BEING A SPEECH DELIVERED AT ST. THOMAS'S HOSPITAL, MAY 23, 1872.

By Dr. STROMEYER, of Hanover.

GENTLEMEN,—I suppose I may leave it to the kind care of my youngest English friend, Mr. William MacCormac, to account for the liberty I take in addressing you. Let me ask your indulgence for spoiling the Queen's English, which is not my native language. This is the first time that I speak to an English audience. As a Surgeon, I dare say, I am not quite a foreigner, having got a sprinkling of English Surgery even by inheritance. My father, who was a member of the Royal Medico-Chirurgical Society in London, and well known in his time, by having introduced vaccination in Germany, was a regular pupil of St. Thomas's Hospital, from 1792 to 1793, under Mr. Cline, at a time when Sir Astley Cooper was a demonstrator of anatomy there. He had a very high opinion of English Surgery, and used to say that the best Surgeons in the universe were to be found in London; that during a twelve-months' presence there he witnessed only a very few cases in which his opinion was different about the propriety of the operations which he daily saw performed. He was able to judge for himself, being already 30 years old when in London,

and having been a pupil and assistant of Professor Richter in Göttingen. I followed my father's example, and have been a pupil myself at St. Thomas's Hospital in 1827 and 1828. Mr. Henry Green introduced me there, and made me acquainted with the splendid circle of Surgeons then living in London—Benjamin Travers and John Tyrrell, of St. Thomas's Hospital; Bransby Cooper, Aston Key, and Mr. Morgan, of Guy's Hospital; William Lawrence and Henry Erle, of St. Bartholomew's Hospital; Sir Benjamin Brodie and Mr. Rose, of St. George's Hospital; Sir Charles Bell, of Middlesex Hospital; Mr. Guthrie, of Westminster Hospital; Mr. Wardrop, of Westminster Eye Infirmary. Sir Astley Cooper had already retired to the country. I have only seen him on an occasional visit to St. Thomas's Hospital, where he used to come from time to time when he was tired, as he said, of looking after the ewes. It was highly gratifying to see how his presence used to be hailed. The same scene took place when old John Abernethy appeared in St. Bartholomew's Hospital. The students flocked around him, and he generally gave them a speech, in parting, in the open court of the Hospital, ending by quoting Shakespeare. Being very partial myself to the great poet, I liked these quotations, which reminded me of Sydenham recommending to read "Don Quixote." For a Surgeon, nothing is so injurious as dulness; he must always be in good spirits when his services are required. Sir Astley Cooper used to say that a Surgeon ought not to read too much; but this, I suppose, meant dull authors, not Shakespeare or Cervantes, who are both of them very accurate observers of human nature, like Dickens, Sterne, and Fielding, whose "Tom Jones," I daresay, you may happen to know.

I could speak for hours if I were to say what influence the Surgeons in London whom I have named have had on my mental development. First of all, I admire the truly noble character of the Profession, the good feeling of its masters to each other, their candour, their humanity in the treatment of severe cases. I can only repeat what my father said fifty years ago—the operations which I saw were, all of them, necessary, well planned, and, in most cases, executed with great dexterity. Manual dexterity was considered as a quality which scarcely deserved to be mentioned; it was only spoken of where it shone by its absence in a bungling operator. Every operation was executed with the sole view to save the patient's life or to diminish his sufferings, not to show the dexterity of a *virtuoso*. Circular amputation was preferred to the more showy flap amputation. This I had not forgotten when I had some influence in recommending the circular amputation in times of war, where it is of greater importance still than in chronic cases of civil practice. In 1827 I examined the invalids in Greenwich Hospital, on whom amputation had been performed by the flap method, and found that the fleshy cushion had disappeared entirely. Besides this, I admired English Surgery for the simplicity of its application. The great conformity of principles resulting from simplicity struck me as highly valuable, because it makes a deep impression on the mind of a younger member. This conformity gives English Surgery a national character. It is not the same in other countries, where only your very particular friends admit that you are right in saying that two and two make four, or that a severe gunshot fracture of the knee-joint requires amputation.

I was well satisfied with the great caution of English Surgeons in adopting innovations. I saw no reactions then, and there was no trace of lithotripsy yet. It is better to begin slowly, and then to go on steadily. This is otherwise in Germany and in France, where Surgeons are fond of novelties. At present you may witness the effect of greater caution. Sir Henry Thompson has eclipsed the inventor of lithotripsy, Civiale himself, whose instruments, indeed, were not worth trying till Heurteloup had found the right ones for him. Sir William Fergusson, by his articular resections, has surpassed most Continental Surgeons. Mr. Spencer Wells, in ovariotomy, all living Surgeons.

From what I had observed in London, I came to the conclusion that the beneficial influence of Surgery and the high standing of the Profession depend chiefly—(1) on the good feeling of its members towards their patients and towards each other, not excluding those of a former time; (2) on simplicity; (3) on a total abnegation of selfishness in planning and executing Surgical operations.

You may ask me, gentlemen, why I could not have learned that just as well in Germany. There is no place there which can boast of such a number of great Surgeons at the same time. Our greatest capitals have but a few Surgeons of eminence in comparison. Whatever may be their merit, their example is not so striking as that of a whole body acting the same principles. In Paris the number of Surgeons is greater than in our German universities of Berlin or Vienna, but not to be compared to London, which I consider is a central point of Surgery for the whole globe. This, gentlemen, you may consider as the sincere opinion of a man who has watched the progress of Surgery during half a century. I wish it may remain so for centuries.

After having been in London, I happened to be in Paris at a time when Lisfranc was thundering against Dupuytren, whom he used to call "le barbare de la Seine," as a sample of good feeling amongst the Profession there. It is one of the great advantages of travelling, and of seeing eminent men of other countries, that, by observing them in their activity, one may acquire a better notion of their character. Their writings excite greater interest, because we are inclined to give them greater credit. I always admired the simplicity of style in English authors in general, and of Surgical writers in particular. Sterne ridicules the pompous style by mentioning the expression of his French barber about the solidity of a new wig, "You may immerse it into the ocean." An Englishman, says Sterne, would have preferred a pail of water. To avoid the barber's style, I took precious good care never to say ocean when I meant a pail of water.

After sketching these general impressions, permit me, gentlemen, to give a few particulars of the manner in which some of my English teachers have influenced me. Having so lately seen one of the greatest battle-fields of modern history—that of Sedan, where I met Mr. William MacCormac, who, from over-exertion, did not look quite so well as to-day—and the siege of Paris afterwards, let me speak of Mr. Guthrie first. I cannot say that I liked him personally quite so well as many of the others; but I admired his energy in maintaining the great principles acquired in the Peninsular War—the necessity of early primary operations, of tying a wounded artery, if possible, on the wounded spot itself. I have done all in my power to keep his doctrines, those of the admirable Hennen, and of old Baron Larrey, in fresh memory since 1848, when the time seemed to approach that Germany must go to war for its own development. For a man of sense, there can be no doubt about the necessity of early primary operations; but in military practice there are difficulties in which it is the duty of every Medical man to maintain the sacred cause of humanity. This sentiment was appreciated even by a conqueror like Napoleon I., who said of Larrey that he was the most virtuous man he had ever known. It was one of Mr. Guthrie's best qualities that he always gave very positive reasons for what he did; so another person could easily find out whether his own views must be in accordance with Mr. Guthrie's opinions. There was no fickleness about him. I differed from him in one essential point—that of his preferring amputation for gunshot-fractured thigh to conservative treatment. Guthrie puts too much stress upon the imperfections of conservative treatment, the result of which is often a very disabled limb, whose possession does not make the patient very comfortable. But these imperfections admit of improvement, while a high amputation gives no prospect of better chances: it will always remain a very dangerous operation. Our first object is to save a man's life, and the second to make him comfortable, but not in his grave. My results of conservative treatment in gunshot-fractured thigh, during the first three campaigns of 1849, 1850, and 1866, did not go beyond 50 per cent. healed. I saw the reasons of our failures, tried to avoid them, and went on with conservative treatment. In the two campaigns of Schleswig-Holstein (1849 and 1850) the patients had to be carried to considerable distances. After the battle of Langensalza, in 1866, I was unable to prevent many cases from being spoiled by an injudicious use of plaster bandages. It was in Floing, near Sedan, where we succeeded in saving 77 per cent., twenty-seven amongst thirty-five patients, who had been carried to no great distance, and were treated without putting much restraint on their shattered limbs.

From my own father I had learned the advantages of Percival Pott's position, which may be employed during the first period in most cases; in others or later the double inclined plane, or a straight wire basket, will suffice. According to my opinion, the great principles to be followed in compound fractures in general are—(1) dressing the wounds without lifting the limb; (2) avoiding constriction; and (3) not irritating the muscles in straining them by mechanical contrivances. A gunshot-fractured thigh permits a weight to be suspended to it, keeping the limb a little at rest, like the hand of an assistant, but not an extension by weight or other contrivance, that

gives the limb its proper length, except in very few cases, as mentioned by Mr. MacCormac in his "Notes and Recollections," which healed without difficulties and without any perceptible shortening. The most common case is, that for some time after the accident the muscles retain a tendency to retract, which is increased by opposition, and ceases by-and-by in a favourable position of the broken limb. The idea of subduing muscular action by constant extension, even in compound fractures, is not new; but it had not been tried before by contrivances so dangerous as a plaster of Paris bandage. This is applied under chloroform, which relaxes the muscles; the limb is made straight, and as long as its fellow. When the action of chloroform has ceased, the muscles recover their activity, and are kept in extension in spite of their violent efforts to contract, which often break the plaster bandage. The tension, which is kept up by mechanical means, makes the sensibility rise to a high pitch, and severe inflammation follows. If the plaster bandage be loosely applied, by putting wadding and a flannel roller between, it is often well borne, but the limb is as short afterwards as if no bandage had been employed. While I was writing this in Hanover, on May 1, a young captain came to me, from whose gait no one would have thought that he had had a gunshot-fractured thigh in 1870. A plaster bandage had been applied on the third day; he could not bear it. The Surgeon who took it off next day told him that the fragments had taken a bad position under the bandage. From this time he was treated without restraint, and cured in six weeks, his limb lying in a wire basket. The shortening was one inch of his left lower extremity. His brother met with the same accident at the same time, but was healed with a shortening of five inches. Large splinters came away by suppuration, some of them being three inches long. The captain came to consult me about his brother. He is in service again long ago.

The danger of early plaster bandages on other parts of the skeleton is less than in the thigh; but it exists and is very great in the humerus, where pressure is very liable to stop the venous current, or to drive a splinter of bone into the brachial artery. I treat these fractures by letting the arm lean on a soft cushion, which is tied to the thorax, the forearm being suspended in a sling. In Schleswig-Holstein I had twenty-four successful cases amongst twenty-nine. One of the German Surgeons who took part in the late war—Dr. Rappreeht, of Munich—prefers the plaster bandage; but amongst the three cases which he had to treat there was one which proved fatal on the seventeenth day by hæmorrhage, a splinter of bone having opened the brachial artery.

I differ from Mr. Guthrie besides in his appreciation of trephining the skull, which I have tried to exclude entirely from military practice, as useless in some and unnecessary in other cases. I consider a state of coma from depressed skull no more as an indication for applying the trepan than a comatose state in typhus as an indication to rouse the patient from it by any other means but those which are in accordance with his general state—cold, for instance, but not stimulants. As soon as the fragments of skull become detached by suppuration, the comatose state ceases by itself.

The great difficulty in settling this skull question consists in this—that some patients survive the use of the trepan, or of an early extraction of splinters, and that some recover their senses very soon after the operation. This seems to be a conclusive proof of the legitimacy of active interference. But there is no depending upon it; the patient may die just as well after having recovered his senses completely, and, as experience has shown, more easily than if you let him continue comatose by not disturbing the splinters. This might have been expected, from very solid physiological reasons. By taking away the splinters at an early period in cases where the dura mater is wounded, you open the arachnoid cavity; air and acrid matter can enter it. Brain-substance, when bruised, thus becomes putrid, while it might have been eliminated by reabsorption without access of air. Subcutaneous operations practised in modern times have done a great deal to put more stress on excluding air; but even before their time, Dease and Sir Benjamin Brodie came to a conclusion that access of air was to be avoided in cases of fractured skull, and that no interference ought to take place for depression unless it was warranted by cerebral symptoms. John Hunter was not yet arrived at this degree of caution when he said in his Lectures (Palmer's edition, vol. i., p. 493)—"All fractures of the skull may be called compound; for if not so naturally, they are made so by the removal of the scalp."

In the retrograde tendency of Surgical interference with a broken skull it was an important step not to remove the scalp; but other steps were to be argued. An open scalp wound over a broken skull does not produce a great change in the danger of the case. Spreading inflammation of the membranes of the brain or deep-seated suppuration does not necessarily follow from it; but these are very likely to take place if you open the arachnoid cavity by removing the splinters which have kept it closed. When the splinters come away by a very limited suppuration at a later period, the arachnoid cavity is closed by adhesions of dura mater to the brain. It is often impossible to say beforehand whether the dura mater has been opened or not. If it is open, the danger is rendered much greater by removing the splinters. The *Medical Times and Gazette* of 1860 contains a list of eighty-three cases in which the trepan had been used, fifty-one of whom died, and thirty-two recovered. Amongst those who did well the dura mater had been wounded; but in three cases the others as well were such that, according to my experience, they might have recovered without using the trepan or early extraction of splinters. Gunshot fractures of the skull are always compound; their successful treatment without active interference deprives this of one of its strongholds—the presence of an open wound, which formerly seemed to permit further violence. During the two Schleswig-Holstein campaigns of 1849 and 1850, I had to treat forty cases of gunshot-fractured skull, thirty-three of whom recovered, and seven died. We had one case of trephining with happy result, but it was of that description that it might have done well without interference. The others were subjected to an antiphlogistic treatment by ice, bleeding, purgative medicines, and low diet. The splinters were not removed before being quite loose. I have been blamed by Mr. Pirogoff and others for totally excluding active local interference in gunshot skull fractures; many others have followed my example. You will admit, gentlemen, that there is no knowing of what use a thing may be before having tried it. My object was to know how far we might get without active interference. The result was not unsatisfactory. It was the same thing with treating typhus patients without stimulants. By trying it, on physiological principles derived from morbid anatomy, I found it very successful. What has pleased me most, from a Medical point of view, during the late war, was to find two Hospitals in Rheims and one in Versailles where the number of deaths from typhus was not above 8 per cent. Weak broth and some ounces of very sour wine were all the stimulants employed till the fever was over. The wine which I tasted was so sour that it must have contained more acid than common vinegar does, as I know from comparative experiments with potash. So it probably did the same service as phosphoric acid, which I prefer, with a well-boiled water-gruel for diet during the febrile stage. The two Hospitals in Rheims were close to each other; in one, the patients were cooled by immersion—in the other, by active ventilation in tents, while the results were quite the same in both. In other Hospitals, the mortality from typhus amounted to 25, even to 50, per cent. Nothing shows the great value of the Medical art and science better than such striking differences in the results of treatment under the same circumstances in regard to constitution, causes, and symptoms.

During great part of my presence in London I used to see the Surgical patients at St. Bartholomew's Hospital under the care of that clever and highly accomplished Surgeon, Mr. W. Lawrence, whose kindness and very instructive conversation I shall never forget. I saw a great number of patients under him with phlegmonous inflammation, who were treated by incisions at an early stage before suppuration had set in. This bold practice was at that time little known in Germany, where it was spread afterwards, and is generally employed up to this day. Cases of this description do not permit hesitation, and show the use of the treatment very evidently. The effect of an antiphlogistic treatment is not so striking in many other cases. It is only by a longer experience that a Surgeon is enabled to say whether a case of fractured skull, or a compound fracture of a limb, has been greatly benefited by a venesection, which has been made, not in a late period when suppuration is forming, but early, when reaction is taking place, when the face becomes flushed, and the pulse full and hard. Amongst the many wise things which Sir Astley Cooper has said, was the advice to visit a patient with a broken skull three times a day, in order to find the proper time for bleeding him. This does not produce a similar effect like an incision in phlegmonous inflammation; it does not restore the patient's consciousness, but it keeps him alive. That this really takes place can only be judged from other cases in which bleeding at a proper time has been omitted. But bleeding is out of fashion now in Germany as well as elsewhere. The discovery that pneumonia can be cured without bleeding has been the first

cause of this antipathy. I have treated pneumonia myself without bleeding, and had very good results. I lost but five patients out of 558 during ten years in the general military Hospital of Hanover, from 1853 to 1864. Our patients were cupped once, and took phosphoric acid. I never allowed this to be a proof that venesection was equally unnecessary in Surgical cases, which have no typical course like pneumonia. It was a mistake of former times that pneumonia might be subdued by repeated bleeding—it runs its course in spite of that. I have tried in vain to maintain its use in Surgical practice: there is no swimming right across a mighty stream; one must wait for the proper time of low water to cross it. It must be some years ago that Mr. Syme said bleeding-lancets were to be found in Great Britain no more. This, I suspect, has been the acme of antipathy to bleeding. From that moment it was no more a distinction not to bleed. Bleeding ventures to show its head again in the *Medical Times and Gazette* now rather timidly—recording cases which would have been fatal without venesection. Lancets can be easily supplied again, and a few cabbage-leaves, as Dickens says, will be sufficient to give a little practice before opening a vein in man. Perhaps I am mistaken in my expectation that bleeding will soon have its turn again. Perhaps I shall be damned in a future time for having been the last of the Mohicans recommending venesection. At all events, I would in that case meet very good company—all my old friends in London.

On July 6, 1827, I witnessed the first case of hæmorrhage from thrombosed vein, in St. Thomas's Hospital, under Mr. Tyrrell's care. A shoemaker had been stabbed by his own wife with an awl in the right upper-arm. The wound appeared trifling to him—he did not notice it for some days: then an immense swelling of the upper-arm took place; the fore-arm became gangrenous. Mr. Tyrrell amputated close to the axilla. In examining the separated limb, it was found that the brachial vein had been freely opened by the instrument; that a large hole, filled with coagulated blood, had formed near the vessels. The brachial vein was thrombosed to a considerable extent above the puncture. It struck me that the internal bleeding must have taken place after the obstruction of the brachial vein, and that gangrene had been produced by stagnation. I remembered this case many years later, when I found, in military practice, that secondary hæmorrhages in open wounds take place from similar causes. I described them under the name of phlebostatic hæmorrhages. Others prefer to call them pyæmic, putting little stress upon the venous obstruction. But pyæmia does not always exist in these cases, and the influence of venous obstruction on hæmorrhage is evident. You will see this, if you should happen to bleed again, which must be done by stopping the venous current above the place where you open the vein. Every open wound would bleed under a similar contrivance. Let me observe here, what I have forgotten to mention elsewhere, that capillary thrombosis of some extent below an injured vessel must have the same effect as thrombosis of the main vein, because it increases the degree of pressure which the column of blood exerts in entering the limb. The quality of the blood in it must become altered by impediments of either kind, and healthy nutrition cannot be kept up.

These observations are of great interest in military Surgery: they teach us to be very cautious in treating wounds which may have affected vessels of considerable size, whose bleeding has been arrested by bruising or by coagula. The injured vessels may heal without hæmorrhage, if the reflux of venous blood remain free; but if there be any obstruction, either by capillary or venous thrombosis, secondary hæmorrhage can occur. Before this takes place, the wound often changes its aspect from altered nutrition. Mr. Guthrie's plan of tying a wounded artery on the spot often does very well in minor vessels, but it often fails in the femoral artery. The large vein accompanying it has often been torn or bruised by the same ball. After tying the artery on the spot, the vein often becomes totally impermeable, and then hæmorrhage recurs, or the limb becomes gangrenous. It may be proper in some cases to gain time by putting a ligature above the wounded spot; before new hæmorrhage occurs, the vein may have undergone a favourable change. In other cases, it is better to amputate at once.

I cannot dismiss Mr. Tyrrell's name here without mentioning how I used to admire his cataract operations. He did them generally by a superior corneal incision, of the greatest regularity. I adopted his method of sitting behind the patient's head in operating on the right eye. I had seen Graefe the elder in Berlin, Jaeger the elder in Vienna, and Roux in Paris, perform extraction, as well with the left as with the right hand, but I preferred the more cautious English way. I often thought of Tyrrell's beautiful operations and their results when the time came that iridectomy seemed necessary for the great majority of cataracts before extracting them. I have hailed Dr. Liebreich's innovation as a candid acknowledgment that modern oculists had gone too far in this respect, and that the iris ought to be spared if possible or reasonable.

To Sir Benjamin Brodie I feel very thankful to this day for what I have seen of him in treating diseases of the urinary organs, but chiefly for his skill in diseased joints. He was the first Surgeon who enjoined the doctrine of keeping diseased joints at rest by putting them on a splint. The leather splints, which he recommended, had been partly superseded by starch or plaster bandages, but I use the leather splints constantly in many chronic cases, when the patient is to go out to bathe, or to use other local applications. Sir Benjamin Brodie's influence on the treatment of articular diseases has been great in Germany. His work on the subject has been translated, in 1821, by Dr. Holscher of Hanover. It had to fight its way in Germany against Rost's authority, who had introduced the red-hot iron as a general remedy for most chronic cases. It is used no more now. The great principle which Mr. Hilton has so ably advocated, of keeping diseased parts at rest, either by mechanical or by physiological means, has done away with the red-hot iron. It was Sir Benjamin Brodie's farther merit to point out cases where articular disease is spurious, and where rest proves hurtful. I consider Brodie's work on local nervous affections, published in 1837, as one of the greatest value on account of the number of persons who may be benefited by his doctrines. I had given a short extract of it in my "Manual of Surgery," but this had no effect in rousing the public attention. My German countrymen imagined that local nervous affections were a particular gift of nature to English young ladies. Not a month passes but I see a striking case in Hanover. My son-in-law, Professor Esmarch, who travels a great deal during his vacations, has been able to pick out a number of cases in different parts of Germany, and to extricate them from the spider's web of injudicious treatment. Perhaps I ought to have written myself about this subject more at large, but I despaired of doing it better than Sir Benjamin Brodie. Professor Esmarch published a small volume last year on "Articular Neurosis," which, I hope, will go far in spreading Sir Benjamin Brodie's doctrines, whose German translation has failed to produce the desired effect. This subject is intimately connected with the exertions of that great genius, whose discovery of the different roots of motor and sensitive nerves has spread a lustre on our century.

Perhaps no man has given so much to think to his contemporaries as Sir Charles Bell. He did not live long enough to witness the wide expanse of studies derived from so simple a source as that of the different roots. Bell's researches on paralysis of the facial nerve alone were sufficient to create a number of similar ones. The connexion of this illness with rheumatism; the liability which persons have for it who are subject to abdominal affections; to impediments in the circulation of the abdominal viscera, pointed to other diseases with diminished nervous energy—in the organs of sight and of hearing, for instance.

In following the hints given by Charles Bell, I found that every local affection originating from violence, or spontaneous inflammation, was influenced in its course by an enlarged liver or spleen, and that, for a cure, it is necessary to reduce their size. This accounts for the very general, but more empirical, use of blue pill and bark, and advises us to examine the size of the liver and spleen, by percussion, especially in chronic cases which show very little tendency to heal—in secondary or tertiary syphilis, for instance.

Marshall Hall's discovery of the reflex function gave a new stimulus to think on the great importance of Bell's discovery, from which it had taken its origin. This doctrine of the reflex action of the nervous system can only be compared to the discovery of the blood circulation. It gave an idea of the manner in which the nervous action is kept on day and night, and reflex action following the other. Trying to understand this action, I was led to assume a second principle, which is ultimately blended with reflex action. I found that immoderate reflex action in muscles, or muscular organs, was generally combined with painful feelings, sometimes in the neighbourhood, sometimes remote from the seat of spasm. As a similar train of combined sensations must take place during healthy action of muscles or muscular organs, I guessed that the action of the muscular system was necessary to maintain the nervous energy.

Sir Benjamin Brodie, in his work on local nervous affections, opposes the popular use of the name of spasm for painful

feelings. This is the case in Germany. People make no difference between *Krampfe*, spasm, croup, and *Schmerz*, pain. There is some reason for it; where there is spasm, there used to be pain, but often in remote parts. Instead of pain, spasm is often combined with altered sensibility, partial or general. The German name for hysteria is *Mutterkrampfe*, mother cramps. The uterus being a muscular organ, it may well be that hysteria partially consists of habitual spasm of the uterus, as a reflex action from the ovaries, or from other parts of the system. This idea was well known in England in former times. You can find it in Shakespeare's *King Lear*, who is made to say, "How this mother swells up towards my heart."

One of the most striking examples of pain originating in spasm, is that of the glans penis, from contractions of the bladder around a stone in it. Another well-known example is pain in the knee, arising from reflex spasm of the flexor muscles of the hip-joint, from inflammation of its bones, sometimes from other causes.

In a particular case, where there was no inflamed hip-joint, I succeeded in doing away with the knee-pain by dividing the rectus and rectinæus muscles. I have pointed out sensations, combined with muscular action, in all the organs of sense and in many cases of disease. I have written on my theory of combined motor and sensitive nervous energy, first, in Hanover, 1837, in the *Gottinger Gelehrten Anzeigen*, an article which I reproduced in Latin, after having become Professor of Surgery in Erlangen. I have followed up this subject no farther, because it would have cost me the exertion of a whole life to carry it to a degree of perfection equivalent to a clear demonstration by physical evidence. But the fact that every pain, which evidently does not depend upon local alteration of texture, depends on spasmodic action of some muscular organ, has been of great use to me in practice, and I can advise you to put this question to yourself in every case of that description, Where is the seat of spasm? Remember that it is as well in the voluntary muscles as in the involuntary ones that spasms can take place. Perhaps you little suspect that the liver is an organ whose muscular energy is of great importance. But if you had felt the pain in passing a biliary calculus, you would think otherwise. I have felt it myself, and took six grains of opium in one night for it.

Pains in remote parts of the body are very frequent in liver complaints, in the shoulder, in the head, or in other parts. I could tell a great number of cases in which local nervous affection of an extremity proceeded from the liver, others from the accumulation of hard fæces in the large intestines, keeping up spastic action for their expulsion. It is very easy to cure them, after having found the real cause, without any toxical application whatever to the affected limb.

After having spoken of such a variety of things and for such a length of time already, let me bid you farewell now, gentlemen, and thank you heartily for the kind attention with which you have been listening to me. I wish you may remember your studies in London with the same feelings of gratitude and satisfaction as I do after forty-four years of practical life.

A CHAPTER IN THE HISTORY OF CHOLERA.

Communicated by Dr. CHARLES ROGERS,
Historiographer to the Historical Society (Earl Russell, President).

On Friday evening, the 26th ult., Mr. B. G. Jenkins, of the Inner Temple, read before the Historical Society a remarkable paper on Cholera, founded on a communication to the Russian Imperial Academy of Sciences, and now in the hands of the Medical Council of the Minister of the Interior.

Mr. Jenkins maintained that no true advance could be made in any science founded on experience and looking to facts for its development, until the facts of that science, so far as they extended, had been recorded and correctly interpreted, and that it is because we have been looking at the facts, which have been accumulating for half a century, as facts, without attempting to show—or rather, without succeeding in showing—in what relation they stand to each other, that we are really no wiser than we were forty years ago. He held that, instead of one "home" of cholera in the delta of the Ganges, there were seven, all situated on or near the tropic of Cancer, equally distant from each other, of which the most important is that at the mouth of the Ganges; that the others are to the east of China, to the north of Mecca, on the West Coast of Africa, to the north of the West India Islands, to the west of Lower California, and among the Sandwich Islands; and that a reference to the map would show that the recorded appearances of cholera over the globe may be satisfactorily explained by supposing seven atmospheric streams, each 1400 miles in breadth, to proceed in a north-west direction; and that at some periods, as in 1833, 1850, and 1866, nearly all the streams were in activity.

Having pointed out the course of these streams on a map especially prepared, and shown how the disease moved within the limits of each, in both the north-west course and its south-east extension across the equator, Mr. Jenkins, in tracing in detail the course of the cholera in India during 1817 and 1818, called attention to a remarkable law which manifested itself—a law which he held to be applicable generally wherever cholera appears. Although the course of cholera during 1817 was not very clear, still it was, he believed, evident that it was north-west and south-west. The lull in virulence and advance which occurred in December, 1817, continued till March, 1818, when cholera broke out again just where it had ceased the previous December. He drew attention to a very recent similar instance: the cholera last year halted on the western border of Russia, and about a fortnight ago broke out in Poland, which augurs ill for the north of England this year. The remarkable law which manifested itself was that in 1818 the cholera advanced simultaneously in two directions—north-west and south-west—in such a manner that all places attacked at any given time by its north-west advance were situated at right angles to all the places attacked at the same time by its south-west advance. The mode of double advance was made evident by cutting a piece of paper square, placing a corner upon the map at Calcutta, and moving it across India in a direct line to Surat. In 1819 the cholera crossed the Arabian Sea to Muscat, and passed simultaneously through Persia, and up to 1823 advanced as far as Asia Minor and the Caspian, and then died out. In 1823 a fresh outbreak occurred in India; this steadily proceeded to the north-west, and halted in the west provinces of Russia in 1830, and the next year broke out in full force in the same locality—thus presenting a parallel to 1871-72—and went as far as Britain. By referring to the map, he said it would be seen that all places attacked by this stream of cholera lie within the boundaries represented by two lines—one drawn from the southern point of India to the north of England, and the other from the Ganges through Orenburg to Archangel. Mr. Jenkins having described with great minuteness the rise and progress of the other six streams, bringing the subject down to the present year, stated that Europe was liable to attack from two great sources—India and Arabia—Russia and Northern (and partly Central) Europe coming under the influence of the Indian stream, Southern and Western (and partly Central) Europe under the influence of the Arabian, and that the Continent would certainly be attacked by both this year. He called attention to a fact worthy of mention, that all the places recorded by Dr. Gavin Milroy as hitherto unaffected by cholera lie outside these streams, or in their possible, but not actual, extension.

Having stated that he was prepared to give in another paper on the origin of the disease a full explanation of some well-known points about cholera, such as its partial connexion with the east wind, its following the course of large rivers, its greater prevalence on tertiary strata, alluvial tracts, and the deltas of rivers, and its comparative rarity on secondary and primary strata, Mr. Jenkins proceeded as follows:—

"It was not my intention at the present time to enter into the question of the origin of the disease, but having read a few days ago that Dr. Buchanan in this very hall congratulated the meeting on being able to number among the things of the past the time when the propagation of cholera was supposed to be due to all manner of cosmic influences, and on having reached 'a solid basis of fact and knowledge upon which further observation might be built with security,' I am tempted to observe that I, for one, maintain that this despised theory, which Dr. Buchanan fancies is buried and put out of sight, is the correct one. I maintain that cosmic influence lies at the origin of cholera—that cholera is intimately connected with auroral displays and with solar disturbances. I believe that I am able to show that a remarkable connexion exists between the maxima and minima of cholera epidemics and of solar spots; and in directing your attention to this map, on which I have represented graphically the amount of cholera and the number of sun-spots for the last fifty years, I wish to show that there is here also 'a solid basis of fact and knowledge upon which further observation might be built with security.' You are all probably aware that the great astronomer Schwabe discovered that the sun-spots have what is called a ten-year period—that is, there is a

minimum of spots every ten years. It was also discovered that the diurnal variation in the amount of the declination of the magnetic needle has a ten-year period. The same was proved in regard to earth-currents, and also auroral. The maxima and minima of the four were found to be contemporaneous. This was a great result; but Professor Wolf, on tabulating all the sun-spots from the year 1611, discovered that the period was not ten years but 11·11 years. This period is now the accepted one for sun-spots, and it has been established for the magnetic declination, and by Wolf for auroral. Now, it is a curious fact that the last year of every century—as 1800—has a minimum of sun-spots; so that the minima are 1800, 1811·11, 1822·22, 1833·33, etc. The maxima do not lie midway between the minima, but anticipate it, by falling on the year 4·77 after a minimum—for example, 1800 was a minimum year, then 1804·77 was a maximum year.

"Now, cholera epidemics have, I believe, a period equal to a period and a half of sun-spots. Reckoning, then, from 1800, we get as a period and a half the date 1816·66, which was shortly before the great Indian outbreak; also, 1833·33, 1849·99, 1866·66—years having a maximum of cholera; and 1883·33 as the next year in which there will be a cholera maximum. It follows from what has been already said that 1783·33 would be a year in which cholera would be at a maximum. Now, it is a fact that in April, 1783, there was a great outbreak of cholera at Hurdwar.

"I would call attention to the parallelism of increase and decrease of these curves. I am not prepared to say that sun-spots originate cholera, for they may both be the effects of some other cause, which may, indeed, be the action of the other planets upon the earth and upon the sun. If that be the case—and I see no reason why it should not—we may then have an explanation of the minor periods, and of the large period of fifty-six years, which Wolf believes he has detected, and also of the minor periods observed in cholera epidemics.

"My own opinion, derived from an investigation of the subject, is that each planet in coming to and going from perihelion—more especially about the time of the equinoxes—produces a violent action upon the sun, and has a violent sympathetic action produced within itself; internally manifested by earthquakes, externally by auroral displays and volcanic eruptions, such as that of Vesuvius at the present moment—in fact, just such an action as developes the tail of a comet when it is coming to or going from perihelion. And when two or more planets happen to be coming to or going from perihelion at the same time, and are in or nearly in the same line with the sun—being, of course, nearly in the same plane—the combined violent action produces a maximum of sun-spots, and in connexion with it a maximum of cholera on the earth. The number of deaths from cholera in any year—for example, the deaths from cholera in Calcutta during the six years 1865-70—increased as the sun passed from perihelion, especially after March 21; came to a maximum when it was in aphelion; and increased again when the earth passed to perihelion, and notably after equinoctial day—thus acting as a fair test of my theory."

REVIEWS.

The Beginning: its When and its How. By Mungo Ponton, F.R.S.E. London: Longmans. 1871. Pp. 582.

Mankind: their Origin and Destiny. By an M.A. of Balliol College, Oxford. London: Longmans. 1872. Pp. 780.

Physiology of the Soul and Instinct, as distinguished from Materialism; with Supplementary Demonstration of the Divine Communication of the Narratives of Creation and the Flood. By Martyn Paine, A.M., M.D., etc., and Professor in the Medical Department of the University of New York. New York: Harper. London: Sampson Low. 1872. Pp. 707.

The Institutes of Medicine. By Martyn Paine, M.D., etc. Ninth edition. New York and London. Pp. 1151.

Man in the Past, Present, and Future. A Popular Account of the Results of recent Scientific Research as regards the Origin, Position, and Prospects of the Human Race. From the German of Dr. L. Büchner, author of "Force and Matter," etc. By W. S. Dallas, F.L.S. London: Asher and Co. 1872. Pp. 362.

The list of books before us bears witness to the insatiable curiosity of mankind as to their origin and their future destiny. When we consider that these books contain between three and four thousand pages, by writers of the most diverse schools of thought, on the most intricate of subjects and the most awful, and that language itself often fails to express clearly what the writers mean, we shrink from attempting to construct an essay on their subject as a whole. We can but undertake the humbler task of describing each book by itself.

In choosing which book to begin with, we naturally take the simplest, which, without doubt, is Büchner's. This author's views have all the force and lucidity which flow from entire consistency and simplicity. His well-known book, "Kraft und Stoff," contained his creed—short, dogmatic, and unmistakable. There exist "force and matter," nothing else. Force is a property of matter, and cannot exist without matter. Matter, therefore, is immortal and eternal, and could not have been created, because to suppose a (creative) force existing before matter and independent of matter is impossible. Matter is infinite. It has laws which are immutable, eternal, and universal. There is no such thing as a "supernatural." Life comes spontaneously, according to law, and is no work of a Creator. There is no design in nature; this is a fiction of the human mind, which admires what itself has fancied. There is no God, no soul, no free will, no life after death. Are these sentiments immoral and contrary to public policy? We can't help that, says Büchner, if they are true.(a)

Such is the writer whose work on "Man" is presented to us in an English dress by Mr. W. S. Dallas, with a slightly apologetic intimation that he does not participate in his extreme views, and thoroughly differs from some of his conclusions upon moral and social questions. We can assure Mr. Dallas that there is not the least need of apology. We want to know things as they are; and the history of opinion is a part, and as essential a part, of the history of our times, as is the history of meteors, pestilences, sun-spots, chemical discoveries, mechanical inventions, and political revolutions.

Dr. Büchner in his introduction states his problem, which is to determine man's place in nature, and in so doing to demolish one of the cardinal errors bequeathed from less enlightened times. One error which prevailed down to the sixteenth century was the *geocentric*—the notion that the earth was the centre of the universe, and that sun, moon, and stars were made to dance attendance on it. The other is the *anthropocentric*, "which even still governs the great majority of mankind," and "regards man as the centre and sole object of the whole organic creation—as the image of God or the ruler and centre of the terrestrial world, the whole mechanism of which has been organised, and exists solely, for his use and with reference to his special needs." This prejudice has been dissipated by modern science, of which Dr. Büchner professes to give the processes and results.

He proceeds in his first part to discuss "Our origin." But this title is scarcely exact; it should have been "Our original condition," for the whole scope of this part is to show, by a laborious, yet interesting *résumé* of all the observations on the subject—from Frere's discovery of flint chips at Hoxne in the last century to the latest observations of Lyall and Lartet—that man has existed for thousands, perhaps hundreds of thousands of ages on the earth, and that all evidence shows him to have been at first a mere barbarian. Here comes a point which Büchner evidently feels to be a difficulty. Savages are virtually stationary for terms of almost "infinite duration." Thousands of years pass without any improvement, as is evident in the case of the Australian hordes at the present day; or, if there be a fit of improvement, it may cease and become stereotyped, as in the case of the Chinese. So that, even after the "large and powerful animals" and the "mighty geological catastrophes" of the diluvian period had run their course, "impulses of some particular kind would be required to rouse the primeval savage from that sluggish, inactive, and unintellectual state in which one generation after another had sunk into the grave, like the beasts surrounding them, and to force upon him, as it were, the necessity of advancing in civilisation. Amongst impulses of this kind," continues Büchner, "I reckon prominent natural phenomena, geographical or climatic changes, the immigration or irruption of foreign races, wars, famines, expulsions from old dwelling-places, migrations, the commencement of relations of traffic and commerce, the gradual improvement of language, etc., and especially the *rise of certain highly endowed individuals who possessed themselves of a political or spiritual sovereignty.*" Without such impulses, says Büchner, we might to-day have been as savage as our savagest ancestors. There is positively, he affirms, no such thing as an "innate and necessary instinct of progress in human nature." This is

(a) "Force and Matter: Empirico-Philosophical Studies." Edited by Collingwood. London: Trübner. 1864.

proved by the fact that nations may not only be stationary, but may, like the ancient great empires, decay and vanish.

We cannot help noticing in passing, how thoroughly accordant in main points these admissions of Büchner are with the sentiments of the upholders of what he calls the "Judæo-Christian fables." Whether "God sends a prophet" or whether a "highly endowed individual" arises, the fact seems the same; for the "Judæo-Christian" fabulist may ask on the principle of *è nihilo nihil fit*, and "no force can be self-generated," whence these "highly endowed individuals" rose from, and who or what gave them their "endowments."

In his second part, entitled "What are we?" Büchner gives what properly is the answer to his first question. He enters into the history of development in general, and the development of man in particular, and comes to the now familiar conclusion that we are the climax of an extinct family of catarrhine apes. Whether the development took place gradually by natural selection in accordance with the Darwinian theory, or *per saltum* on Owen's theory—whether it occurred at one place and time, or many—in fact, whether we are descended from one or many human ancestors—does not matter. Man only differs from his cousins in the degree, not in the kind of his endowments.

The third part of Büchner's book is entitled "Where are we going?" and is the most important; because, having settled "What we are," he believes he can satisfactorily predict what we are likely to be. But this question is much more simple than as it is usually stated by theologians. They would perplex us about an imaginary future life, which Büchner assures us is not to be. Some persons also perplex themselves with the question *why* we exist; some going so far as to affirm that we are in a state of preparation for a better state of existence, or even *ad majorem Dei gloriam*. *Nugæ!* We are here *because we are here*, and if wise will make ourselves as comfortable as we can. We are here, not by our own choice, nor yet by the act of a Creator, but by evolution according to natural law. "Man has no one to thank for his existence, and must seek the purpose of his existence only in himself and his own welfare and that of his race." Society needs to be improved and organised, so that the struggle for means of existence may be lessened; and that individuals, instead of merely striving that themselves may live, may devote their energy to the welfare of their race in general. Thus earth will become in the end the Paradise such as theologians feign it to have been at first.

The details of the author's scheme of the reconstitution of society are given under different sections. *Government* must be republican. *Nationalities* must be constituted in some undescribed way, so as to eradicate the national hatred and jealousy which have been created by "misguided sovereigns with enormous armies." Disputes will easily be settled by a national Areopagus(?). *Society* must be organised on the principle that "all men at their birth bring with them into the world an equal right to all the (material or intellectual) possessions of mankind existing at that moment." Every man may earn what he can, and enjoy it, but at his death it becomes common property. The author's views as to land are of the *philosophical*, J. S. Mill, communistic sort. *Capital* he does not rail at *per se*, like an ignorant trades unionist, much as he objects to its accumulation in single hands. Respecting *labour*, he rebukes working men for having yielded to the delusions of *crude* communism. The *family* he regards as too powerful, and that the State ought to provide *education* and dictate its kind. He might have fortified this part of his argument by quoting Lemuel Gulliver's account of the education of the Lilliputians. *Women* he desires to raise and emancipate. But would he give women political power, or the franchise? He is not such a fool. "The still prevalent intellectual immaturity and want of discretion in the female sex, and especially its weakness in respect of *religion*, make its complete political emancipation appear impossible." *Marriage* should be free—both to form and to dissolve. *Morals* are founded on reciprocity and mutual advantage. A criminal is a person "who places his own *I* higher than the interests and laws of the common weal." *Religion* will vanish as knowledge increases. So will *philosophy*, so far as it seeks to know things as they are, apart from things as they seem. Such are Büchner's doctrines, and his disciples at their death may enjoy the consciousness of having served the progress of humanity, whilst themselves lose their individual existence just as drops of rain are lost in the sea.

The next book to notice is "Mankind," by an "M.A. of Balliol College." He intimates that the origin and destiny of man may be explained by Revelation or by Science. He begins with the former, and devotes the first 736 pages of his work to the annihilation of all religious systems and traditions, beginning with the Mosaic. He begins with the history of the discovery of the book of the law by Hilkiah the priest in the temple at Jerusalem, in the reign of King Josiah. He intimates that a large portion of the alleged Mosaic writings were then forged by Hilkiah, and based upon the allegories of the Egyptian priests, under which were conveyed lessons in natural history, astronomy, and morality. A large portion of the M.A.'s book consists of an explication of the Egyptian philosophy which lies hidden under the narrative in Genesis. He then subjects the New Testament to the most severe criticism—in fact, seems to compile most things which can be raised against the integrity of the text and the authority of the writers. He shows the astronomical problems contained under the religious myths of Jews, Babylonians, Hindoos, Persians, etc. When we come to the end of the book we find the statement that Nature Worship is "the primary and universal religion of mankind," and that it lies hid under all myths and allegories, Pagan, Jewish, or Christian. Nature is the Eternal Universal Mother. "From her we sprang, and to her we must return; but the very fact that, finite beings as we are, we can aspire to the Infinite is a proof that we are immortal. We are sure that glorious and ennobling hope cannot have been implanted in us in vain, whatever may be the way in which it is to be realised."

The next work we shall notice is Mr. Ponton's on the "Beginning." Believing that too much stress has been laid on mere geology as a means of exploring the beginning of things as they are, he discusses "the possible antiquity of nature, its earliest condition, the constitution of the luminiferous ether, the probable manner in which matter may have become distributed into definite masses constituting suns and planets." The relation of solar energy to life, the phenomena of organisation, and the origin of genera and species are then discussed. In the second part he attempts the task of reconciling the Mosaic cosmogony to modern science. The writer is evidently a man of good scientific acquirements, and gives us a large amount of information, whilst we must not omit to say that the book winds up with about twenty exquisite engravings of the forms of pollen, and of polycystina and diatoms, as revealed by the microscope, as evidences of the beauty with which the Omnipotent has deigned to clothe the humblest of His works, and of the mathematical laws which He has established.

The chief interest in Mr. Ponton's book, however, consists in its vitalistic doctrine. He repudiates the notion that life is a form or conversion of ordinary force. "The solar undulations cannot of themselves either generate life or become converted into life. . . . To effect the conversion there is required the intervention of that third somewhat which we call a living being. This is the real agent in changing mechanical force into vital energy, and *vice versâ*. . . . Whilst the force displayed by living organisms is only a portion of the energy of the sunbeams in another form, we must, on the other hand, recognise a special power in the living beings themselves—that, namely, of converting one species of force into another. But there seems little reason to doubt that they are capable of exerting other powers peculiar to themselves, the results of which cannot be regarded as the equivalents of any purely mechanical forces already existing in matter." Without food a man cannot think; but the food is not the cause of the thought, nor thought the representative of the food. A spark will blow up a powder-magazine; so acts food in relation to thought. Lord Orford crossed his greyhound with a bulldog. In six or seven generations the offspring lost all traces of the outward bulldog form, but retained its courage and perseverance. Are courage and perseverance, asks our author, inherent in material atoms, and transmissible, like a contagious disease?

Mr. Ponton's views of the nature and operation of the vital force seem to us original. He intimates that the Creator was pleased at some remote period to create an infinite variety and number of what Mr. Ponton calls "organisers." These are immaterial substances, endowed with the life which the Creator gives them, and answering to what most people understand by the term "soul." These organisers organise organisms. These immaterial essences, souls, or organisers are of various grades, some having little more than power of organising—say an amœba—whilst the highest "are endowed with volition, emotion, instinct, imagination, memory, reason, consciousness," and are, in fact, human souls. These "organisers," sent upon the earth, and finding the necessary pabulum, are the efficient cause of the production of living beings out of the material substances which they collect, and the forces that they control. Mr. Ponton rejects alike the doctrine of evolution and that of

instantaneous creation, as held popularly. He believes the first human being was possibly developed out of some temporary "nurse form," just as the Medusa is. He claims for his immaterial organisers the properties of extension, infinite divisibility and extensibility, power of coalescence, and penetrability. The development of Eve out of Adam's side is an example of germination.

Now we must approach Dr. Martyn Paine's "Physiology of the Soul and of Instinct," a work written with great learning and cogency of reasoning, to dissipate all modern views of materialism, evolution, theoretical geology, and physical origin of life, and to establish the independent existence of the soul and of instinct, and the literal truth of the Mosaic narrative of the Creation and the Flood. He begins with a demonstration, deduced from a most complete exposition of the structure and functions of the nervous system, of the *substantive existence and self-acting nature* of the soul, the essence of which seems to be this:—Bodily changes, such as muscular movement, laughter, flushing, etc., etc., may be produced by extraneous substances acting directly or reflectedly on the nervous centres. But the mind can do the same.—(P. 67.) Therefore the mind is something apart from the brain: seated in it, governing it; but not derived from it. Dr. Martyn Paine must forgive us if we say that this reminds us of the syllogism—A is B, and C is B, therefore C is A. He also gives a laborious definition and demonstration of "instinct," which, he says, is an immaterial principle inherent in animals, but perishing at their death. He repudiates the doctrine of conservation of force so far as applied to the origin of vital force. He equally repudiates all the doctrine of evolution, and asserts that every species of animal was created perfect in its adult form.

In the "Institutes of Medicine," of which a ninth edition is before us, the author now having laboured at Medicine for fifty-four years, and taught as Professor for twenty-seven, gives us his latest views on the principal doctrines of disease and treatment. The same thorough conservatism and resistance to modern forms of thought mark this work also. "Solidism and vitalism," he says, "will form the basis of these Institutes." All humoral pathology, therefore, is derided, not merely as insufficient *per se*, or as partial truth, but as absurd, and contrary to the truth. Absorption in the ordinary sense is denied. Medicines cannot act on the blood. Chemical pathology is ridiculed. Blood is healthy when the solids are healthy. Animal heat is a nervous phenomenon. Medicines act on the nervous system. Inflammation is the work of the bloodvessels, as explained by John Hunter. If we desired to characterise this able, closely-argued, pugnacious, voluminous work, we should describe it as upholding the doctrines of the date of 1820—of the time of Travers, Armstrong, and Abernethy. Bloodletting is largely recommended, because of its action on the vessels through the nervous system. All ideas of the quantity or composition of the blood are ignored.

We have thus brought before our readers a great variety of opinions, all professing to be derived from or related to the science of biology. They vary from the most audacious atheism to the most pitiful Bibliolatry. As regards their influence on religion, we may say that the open enemy is better than the injudicious friend.

PROVINCIAL CORRESPONDENCE.

LIVERPOOL.

May 21.

Opening of the Royal Southern Hospital.

The new Southern Hospital, henceforward by her Majesty's permission to be called the Royal Southern Hospital, was opened to-day by his Royal Highness Prince Arthur. About 1200 ladies and gentlemen were admitted by ticket to view the ceremony. The Prince was received by the Committee and Honorary Staff, and after receiving and replying to an address, passed through and inspected a number of the wards, and formally declared the building opened.

Concurrently with the opening of the Hospital took place that of the magnificent Sefton-park, purchased by the Corporation of Liverpool from Earl Sefton, and laid out as a place of public recreation. In this park there is being held, during the week of Whitsuntide, a bazaar and flower show for the benefit of the Hospital; and from the immense number who visited it on the opening day, and who will doubtless continue to do so during the week, a very large and much-needed increase will accrue to the Hospital funds.

The Hospital, including two airing yards, occupies an area whose length is 300 feet and breadth 180 feet. Its front faces the west, and there is a considerable ascent from it eastward in the direction of the length of the building. It has been constructed on the pavilion system, the materials used being grey bricks, with stone sills, etc., intersected with horizontal bands of blue bricks. The frontage is occupied by the administrative department, which is most commodious and spacious, and is only two storeys high in the centre and three at the ends, so as to cause as little obstruction as possible to a free current of air between the ward blocks, which run nearly due east and west, one on either side, and have a clear breadth of 100 feet between them. Each block contains two large and three small wards, the large ones being 113 feet long by twenty-seven feet wide and sixteen feet high, and intended to accommodate twenty-six beds in each, allowing thus 1877 cubic feet for each patient; while the smaller ones, designed to accommodate twelve beds in each, are fifty-four feet in length by twenty-seven in breadth and sixteen in height, with a cubic space therefore for each patient of 1944 feet. Attached to each ward adjoining the staircase are nurses' sitting-room and scullories, and small wards for special cases, while at the ends of each are water-closets, lavatories, and baths, which occupy four towers, one at either angle of the parallelogram, and are so arranged that their ventilation is quite distinct and cut off from the wards. Food lifts are provided from and to each scullery, and foul linen shoots on each landing to a receptacle below on the ground-floor. These are ventilated on to roof. Between the ward blocks, but on the ground-floor, and therefore quite removed from proximity to the wards themselves, are a post-mortem room, dispensary, laboratory, and dead-house, the access to and exits from the first and last being so arranged as to be quite private. On the first-floor, one on either side of the centre of a corridor which joins the two blocks, are the chapel and operating theatre, while the roof of this corridor is asphalted and open to the sky, and forms a most agreeable mode of communication between the second-floors of the blocks. The wards are exceedingly well lighted by large windows on each side, and a still larger one at that extremity which is open to the outside. The ventilation is effected by two upright flues in each ward carried up above the eaves of the roof, and close to the ceiling of either side are "Sheringham" ventilators, one being placed between every two successive windows. The fireplaces were designed expressly for the building; they are open, and each stove has two fireplace openings placed back to back. They are placed in the centre of the wards, and one wrought-iron flue-pipe for each tier of stoves is carried up through floors of wards to the roof. This flue has an outer casting of iron, between which and the flue itself is a space of two inches. The sides of the stove are formed into an air-chamber, and to this is brought between the girders of floors the external fresh air, which, after being warmed, escapes into the ward through the open-work grating in the sides of the stove. The artificial lighting is effected by Benham's ventilating gas globe lights, thus preventing the use or vitiation of the air of the ward. The ceilings are formed of the Dennett arching, and the sides of the walls are plastered, excepting to a height of seven feet, where they are lined by Parian cement. There is a hydraulic lift, for patients, from the ground-floor to each floor of wards. The ward bedsteads are similar to those used in the new St. Thomas's Hospital, London. All the windows are provided with blue check linen blinds, which soften the light, and prevent any bright glare dazzling the patients' eyes.

The large accident-ward is situated very conveniently for access, and of course on the ground-floor; and on the same side of the building, though separated from it by a very wide interval, is a large out-patients' waiting-room, forty-three feet by twenty-five, and twenty feet high, having open-framed timbered roof. In the block of buildings forming the administrative department are several small private wards.

The building is of a simple Gothic style of architecture, and its general aspect is very bold and effective. It can be well seen, and forms a very prominent object when viewed from the river, over which, with its docks, etc., and the adjoining Cheshire shore, is a magnificent view from the large window at the western extremity of the higher wards. It is designed to accommodate about 200 patients.

Adulteration of Beer.—The conductors of the Royal Polytechnic Institution have instituted a series of popular lectures on "Wine, Beer, and Spirits, with special reference to Adulteration."

GENERAL CORRESPONDENCE.

THE WORCESTER INFIRMARY.

LETTER FROM DR. STRANGE AND MR. BUDD.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Lancet* of the 4th inst. appeared an article reflecting upon the Worcester Infirmary and its honorary Medical staff. That letter contained many errors as to facts. Upon the discourteous and entirely unfounded insinuations contained in that article we studiously avoided making any comment, confining ourselves to a correction of errors of statement which were calculated to mislead our Professional brethren. To our very temperate letter in reply, the *Lancet*, in its issue of the 18th inst., appended such extraordinary personal remarks that it is impossible for us, having regard to our own self-respect, to hold further communication with that journal on the subject, even to correct its own misstatements. We have, therefore, to ask you, Sir, to grant us a small space in which to put before the Profession the simple undistorted facts of the case. In fact, the articles in question remind us of nothing so much as the celebrated brief for a defendant, which was endorsed with the words "No case; abuse the plaintiff's attorney."

There are two principal misstatements in the *Lancet's* first article, and reiterated in the second, which we are desirous should not go uncorrected. In order to prove its insinuations of exclusiveness and cliquism, that journal started with "supposing" that "there are, or may be, two Physicians in Worcester who are eligible to be Physicians to the Infirmary, but who are not so appointed." We replied, that of the only two graduates practising here, one had declined to offer himself for the recent vacancy, and the application of the other was not entertained by the committee. Upon this point the *Lancet* ventures to contradict us flatly. Quoting from the Medical Directory, it now says, "There are *three* Physicians, and not two only, who might be eligible for the office." Upon this point we adhere strictly to our former statement. We had further stated that, out of thirteen Medical men practising in this city, unconnected with the Infirmary, *all*, with the exception of two, had been frequently present, by invitation, at the operations. The proper inference from these words we take to be that the thirteen are *all* the Medical men practising in this city who are unconnected with the Infirmary. Yet the *Lancet* has the hardihood to ask, "Why thirteen, when there are twenty-seven in the Directory?" Thus clearly wishing its readers to understand that there are actually the latter number, and that only thirteen of them had been invited to witness the operations.

Here, again, we have to reassert the truth of the figures as given by us, both as regards the number of the Physicians and of other Practitioners in Worcester. How the discrepancy between us and the *Lancet* arises may be easily explained. Everyone must know that it is almost impossible for the "local list" of the Medical Directory, with all the care of its editors, to be strictly accurate in the case of any considerable town. For instance, the Directory of 1871 contains the names of nine persons as living in this city, of whom some are dead, others removed, and the rest never resident here at all. As to the other misstatement of the *Lancet*, whilst we repeat that most of the Practitioners in the city have been frequently *invited* to witness interesting operations, we affirm that the rule of the Infirmary—which that journal calls preposterous—affords every reasonable facility for their doing so without invitation, there being a fixed and well-known day and hour for operating, at which it has always given us pleasure to see our brethren present. Can the *Lancet* point to more liberal customs than these at any other Hospital?

To sum up the whole matter in this dispute, Sir, which would never have arisen had the *Lancet* observed the same wholesome rule as ourselves, viz., to take no notice of anonymous newspaper articles, we say—1st. That no Hospital in the kingdom has a larger proportional staff to patients than that at Worcester; very few so large. We say, 2nd. That its doors are open to our brethren, come from whence they may, at all reasonable hours, and that this fact may easily be known by anyone interested in the matter.

One word more, Sir, and, so far as we are concerned, this unpleasant correspondence is closed. The *Lancet*, after making this entirely unprovoked and unjust attack upon us, with no better foundation than that of an anonymous letter, and in a style which we leave to be judged of by its own readers, takes a parting fling at provincial Hospitals in general, and, without producing one particle of evidence of any mismanagement on the part of their Medical officers, proceeds to insult them by an implied threat that the same battle which that journal fought with the London Hospitals, some forty years ago, will be fought against the "rampant evils" of provincial towns. We will express a hope that when this catastrophe shall happen, and the shafts of the Medical thunderer are ready to be hurled at the heads of these foredoomed institutions, the editor of that journal will kindly call to mind the saying which he may have heard in his youth—viz., "Ingennas dedicisse fideliter artes, emollit mores, nec sinit esse feros."

We are, &c.,

WILLIAM STRANGE, M.D.

HERBERT W. BUDD, F.R.C.S.

(On behalf of the Medical Staff of the Worcester Infirmary).

Worcester, May 22.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, APRIL 26.

OWEN REES, M.D., in the Chair.

DR. GREENHOW related the history of a case of Diphtheria which was followed by Paralysis. The patient, a brass finisher, aged 32, was admitted into the Middlesex Hospital on May 27, 1871, with all the well-marked symptoms of diphtheria. Under treatment he so far recovered that, at his own desire, he left the Hospital on June 27. His voice had still a nasal twang, and he had difficulty in swallowing solids. The left side of the soft palate acted imperfectly, and he had some asthenopia, so that he was only able to read for a few minutes at a time. On August 9 he was readmitted into the Hospital with symptoms of paralysis rapidly coming on. He had the sensation of pins and needles up the legs as high as the knees, and in the hands and arms up to the elbows. For a time the loss of sensation and power increased until he could scarcely grasp with his hands or walk without assistance. The two symptoms, however, which gave special interest to this case were, the slowness of pulse, which only set in as the throat symptoms began to subside, the pulse falling as low as 56; and a remarkable tenderness on pressure of the large nerves of the extremities. Firm pressure on the ulnar, radial, and crural nerves produced great pain, sufficient to make the man call out and to cause his face to flinch. The patient ultimately recovered, and was discharged from the Hospital in the following October.

Dr. BROADBENT thought diphtheritic paralysis affected a nerve-trunk rather than either of its extremities. One idea of its origin was that neuritis communicated from the throat affected the medulla. This was inconsistent with fact. Really it was due to a neuritis of the trunk, but he had had no means of investigating this notion.

Mr. HOLMES exhibited a patient from whom he had excised the whole of the second metatarsal bone, and afterwards the whole row of the tarso-metatarsal joints, the latter operation being undertaken as a substitute for Lisfranc's amputation. The original disease in the second metatarsal bone depended on a traumatic cause; and the affection of the tarso-metatarsal joints was due probably to violence done in removing the head of that bone from the box in which it is embedded between the cuneiform bones. The man recovered, and the foot, though hardly yet quite sound, promises to be perfectly useful. The case was exhibited partly as an interesting example of a probably unique operation, but chiefly to show the success with which excision may be substituted for amputation in affections of the bones of the foot due to traumatic causes.

Dr. DUCKWORTH described four cases of Molluscum Contagiosum (three of the patients being exhibited) which occurred in one family, and which appeared to favour the theory held by many observers that this affection was truly contagious. The disease began in the first child of a woman soon after its birth more than three years ago. The mother became affected upon the face nine months ago. The first child was then treated, and had the tumours removed. The second baby next presented molluscæ about the face, and lastly, the grandmother, who slept with one of the children, became affected. As showing how the different theories of this disease were still *sub judice*, Dr. Duckworth referred to other cases which had occurred in his own practice and in that of others, where the disease arose and

pursued its course in a manner which seemed to favour the view held by some observers that mollnscum was sometimes an epidemic affection.

Dr. Tilbury Fox mentioned a case where the mother got it from her child. Last year a family of seven came under his notice, all affected with this disease at the same time. These did not seem to have communicated the disease from one to another.

Dr. Tilbury Fox exhibited a patient the subject of Leprosy; and Dr. Anstie narrated the case of a gentleman who was infected with the disease in India.

Dr. Owen Rees said that, with regard to leprosy, they had at the College of Physicians come to the conclusion that the nomenclature was imperfect, as there were anæsthetic spots in the tuberculated form. They therefore recommended the terms tuberculata and non-tuberculata. He was not certain if there were any cases without anæsthesia.

Mr. Brudenell Carter saw a good many cases in Norway. There was muscular wasting in all, and Bidenkap apparently looked for it in all, especially of the thenar and hypothenar eminences. Sometimes it extended to the arm. Query: Did these spots explain the witch-marks of old times? Leprosy was more likely to prevail then than now.

Dr. Anstie said there certainly was a good deal of the disease formerly prevalent in this country.

Dr. Buzzard confirmed Dr. Anstie's statements as to his case. The patient was drowned accidentally, apparently in an epileptic fit. On examination they found both the median and ulnar nerves enlarged, especially near the palm of the hand. Dr. Bakewell confirmed his idea as to the nature of the case. He thought they should have no hard-and-fast line as to what is leprosy and what not.

Dr. Tilbury Fox said there was no doubt about Dr. Anstie's case, and its improvement under treatment. He had never seen tubercular leprosy without some anæsthesia somewhere. In his case there was very little, but there was some. He believed there were certain forms of what might be called abortive leprosy.

The Chairman referred to a case in his practice which also occurred in a patient who had never been abroad.

OBITUARY.

ALEXANDER BROWNE, M.D.

Dr. Browne was descended from an ancient, and at one time a very powerful family—the Brownes of Carslinth (a younger brother being the last abbot of New Abbey). Dr. Browne was born at Langlands, in the parish of Twynholm, in 1800. He attended the parish school for some time, then the Academy of Kirkcudbright, from which, at the age of 13, he went to the University of Edinburgh. There he remained until he took his degree of M.D., after which he went to Paris, and studied for some time in some of the best schools in France. Upon his return to England in 1825 he entered the army. He was first appointed Hospital Assistant to the forces; soon after he was gazetted Assistant-Surgeon, under Sir James McGregor (who showed him great kindness, and fully appreciated his worth), to the 23rd Royal Welsh Fusiliers. He accompanied his regiment in an expedition to Portugal in 1826, and returned with it in 1827 to Gibraltar. He was selected by Sir George Don, the governor of that fortress, to proceed on a Medical mission to the Emperor of Morocco, who had applied to the British Government for a Medical officer to be sent to him. Dr. Browne was either selected or volunteered, and it has been said that none of the staff were very willing to go, for fear, if the Emperor died, the poor Doctor, though he had done his best, might lose his head. But Dr. Browne went, regardless of the issue. He was accompanied by the Hon. Captain Beauclerc and other officers, and protected by a large escort of Moorish military. He cured the Emperor of ague, from which he had long suffered, and his son of a scrofulous disease, and he *Professionally* visited the Emperor's harem, accompanied always by the head eunuch with a drawn sword.

In this expedition he acquitted himself admirably, and to the entire satisfaction of the Emperor, who used all means to induce him to remain as *his own Physician*, to the exclusion of all the native Physicians he had—even offering him a special harem for himself. But the offer failed to attract him, and feeling the Emperor wished to retain him for life, and that there would be a difficulty in getting away so as to retain the Emperor's good graces, and part in peace, it so happened that he was seized with dysentery. For this he blamed the climate, and no doubt with perfect truth. He, however, was so ill that even his death was reported. Having no European Professional brother with him, he was compelled to prescribe for and even to bleed himself. He suffered from the effects of this attack for a long time, but to it he seems to have been indebted for getting happily away from the Emperor. At parting an event occurred which well deserves to be recorded. Being unable to speak the Arabic language, he was, while in Morocco, constantly accompanied by an interpreter, who was one of the Jewish race—so despised and oppressed by the Moors at that time that they would not allow them to pass a mosque without taking off their slippers, the infringement of this law being severely punished by the bastinado, which was often inflicted to the horror of many Europeans who witnessed it. When Dr. Browne was taking leave of his Majesty he was asked what special mark of favour or what present he would wish to be conferred on him; and here the nobleness of his spirit was most conspicuous, and astonished the monarch and all around him, when he replied that he wanted nothing for himself, but that he wished to ask one favour for his poor despised Jewish interpreter, which was that he might be allowed by a permission from the Emperor to pass the mosque with slippers on his feet; "for I have heard," said the Doctor, "though you call us, who are Christians, 'infidel dogs,' we are allowed to pass; and the poor Jew is no worse than ourselves." The Emperor was amazed at such a request, which was instantly granted, and he declared that he had never seen such an instance of generous, unselfish, disinterested conduct before; and he gave him a hundred sheep and liberty to export a couple of Arabic horses. Dr. Browne kept notes of this expedition, but they were never printed. Captain Beauclerc published a short account of it after their return, and Dr. Browne came to England on short sick leave soon after, and was at Chatham in 1828.

The fearful epidemic of yellow fever which broke out in Gibraltar in the autumn of that year, in which fifteen Medical gentlemen died, caused the Government at home to send out a brig of war with a party of Medical gentlemen, among whom was Dr. Browne. Shortly after they reached Gibraltar, Dr. Browne had a severe attack of the fever. After his recovery he took a prominent part in the discussions on the contagious or non-contagious nature of the disease. He adopted the latter opinion, and his views were highly esteemed by Monsieur Chevon and the two other members of the Medical committee sent out by the French Government to inquire into the nature of the fever, especially in regard to its asserted importation from the Havana, or its local origin from malaria in Gibraltar itself. Dr. Browne remained with the 23rd Regiment till 1840, when he accompanied it to Nova Scotia. Then he was promoted to the rank of full Surgeon to the 37th Regiment. The regiment returned to Europe in 1842, and was stationed in Ireland. Afterwards Dr. Browne went with the 37th to Ceylon. It has been stated that he was appointed Governor of the Hospital in Ceylon, but it is not clear that he held any particular charge there excepting the duties devolving upon him as the Surgeon of his own regiment, in which there was a very great amount of sickness, and he himself was among the sufferers. After his recovery, as the period of his service for full pay was completed, he went to Malta, in the hope of recruiting his strength, but finding that the Director-General was promoting others—his juniors and inferiors—over his head, he resolved to retire from the service, and did so in 1849 or in the beginning of 1850.

Dr. Browne's annual reports were admirable productions, thoroughly investigating the subjects on which he treated, and it was universally felt that the service had, by his retirement, sustained a severe loss; for had he been promoted, as in justice he ought to have been, he would have been an ornament to the department in its highest grades.

During the years of Dr. Browne's retirement till a few weeks before his death, which took place on April 15 last—though he appeared very little in public, and, indeed, was rather a recluse, and saw or visited none except his most intimate friends, whom he was always glad to receive at his own house—he took the deepest interest in everything affecting the welfare of his country, and a large portion of his time was employed in studying its social, political, moral, and religious phases from the earliest period down to the present time. His great desire was to increase the knowledge and promote the happiness of his species. His charities were most liberal, though given in the most unostentatious manner. His intellectual powers were naturally above the common order, and they were greatly improved by a life of constant and rigid study. He was an

admirable classical scholar, and deeply learned in all historical subjects. He was a great antiquarian, and he has left a great amount of MSS.

About the end of January last his health, which for some years had been precarious, grew gradually worse, and weeks before he was confined to bed he was fully conscious that his end was approaching. British cholera, and violent retching, which soon followed, and which occasioned the rupture of a bloodvessel near the heart or of a valve of the heart itself, and the impossibility of getting any food to remain on the stomach, hastened the crisis. All was done that the warmest affection and the best Medical skill could devise to restore him and prolong his life, but in vain. He retained the use of all his faculties to the very last.

It is unnecessary, after what has been stated, to give at length an estimate of Dr. Browne's character as a philanthropist, a scholar, a Physician, and a gentleman.

JAMES LUNDIN BROWN, M.D.

Dr. James Lundin Brown, who died at Malvern on May 2 last, was a graduate of the University of Edinburgh. After leaving college he carried on his Medical education at the Edinburgh Infirmary, St. Bartholomew's Hospital, and the Hospitals of Paris and Dublin. He entered the army in 1854, on the outbreak of the Russian war, and, as Assistant-Surgeon in the Rifle Brigade, 2nd battalion, went through the Crimean campaign. To the practical experience gained in that war he doubtless owed much of his Surgical knowledge and skill, while the hardships he underwent would largely aid in imparting to him that knowledge of men and that genial sympathy with them which formed a feature in his Professional life. After the Crimea, not liking the inactivity of Aldershot, he left the army, and took a country practice at Rickmansworth, Herts, where he remained five years. He then spent two years in travel and study, visiting Florence and Rome, and devoting himself mainly to art, the classics, and Dante. After this, he settled down to a practice at Malvern Wells, where he married in 1871; but before the close of the year he had the great misfortune to lose both his wife in childbirth and his child. After this sad event he never applied himself again to the duties of his Profession, and died, as has been said, early in May. It is to be regretted that Dr. Lundin Brown never published anything, as, from the stores of knowledge he had accumulated, his unusual powers of thought and expression, and the fragments he has left, he could undoubtedly have contributed usefully to general literature; while, from his devotion to his Profession, especially in certain branches, such as gunshot wounds and diseases of the eye, he was possibly in a position to make valuable additions to Medical science. He was a great student of theology, a science of which he was particularly fond. He was also a master of many tongues, being well versed in classics, and able to converse in the modern languages. Above all, he was eminently a good man, and, like so many Physicians, was as a friend and father to his patients, many of whom (especially those of the poorer class) share with his relatives the sorrow of his loss.

EDWARD LLOYD HARRIES FOX.

It is with sincere regret that we have to announce the decease of this young and promising member of the Profession, which took place at Broughton, Hants, on May 11, after a painful illness of many weeks' duration. He was 30 years of age, and the fifth of a family of nine sons, of whom Tilbury Fox, well known to the Profession, is the eldest surviving. His father, L. Owen Fox, M.D., F.R.C.S., is now practising at Broughton. Deceased received his preliminary education at Queenwood College (where Tyndall, Frankland, and Debus taught natural science), and from thence matriculated at the University of London in the first division. He entered at University College, where his father, two brothers, and six pupils of his father had received their Medical education. The first class he attended was Practical Chemistry, and at its conclusion he carried off the gold medal. His Hospital studies were followed under Jenner, whose assistant Fox became, and for whose mode of teaching and profound Medical knowledge he entertained the highest veneration, and was always delighted to acknowlege that his successful career was due to the excellent training which he received under this distinguished teacher. On taking his degree of M.B. he took a second place in Medicine, the scholarship and gold medal in Midwifery, and the scholarship and medal in Forensic Medicine. At this time he became a candidate for the House-Surgeoncy at the Winchester County Hospital, but was unsuccessful because of some religious difficulties not worth recalling. Deceased was offered the post of Resident Medical Officer at University College Hospital, but, being fond of country life, he elected to join his father at Broughton. Having taken the M.D. degree (Lond.), he went in for the degree of Master in Surgery. There were only three candidates—Beck (Demonstrater of Anatomy at University College), Howse (Demonstrator at Guy's), and deceased. The result was that all were starred equal for gold medal. On a second trial Beck was the victor. Fox was now elected Fellow of University College. During his Hospital career deceased caught scarlatina, followed by dropsy and hæmaturia. After a residence in the country these symptoms subsided, but were never entirely absent, but accompanied by increased impulse of the heart. Albuminuria recently appeared, and, much to his vexation, Fox was compelled to give up work. Œdema of the lungs, cardiac dyspnœa, and dropsy of the extremities eventually set in, and brought his life to a close. His death has caused a universal feeling of regret. His gentle bearing, amiable disposition, patience, and conscientiousness had endeared him to all, and especially to the poor, who have lost a kind friend. His remains were interred on Thursday, in the churchyard of his native village, attended by a large concourse of old friends from the surrounding villages. It is intended to erect, by public subscription, some tribute to his memory, and this will probably be an organ for the church in the choir of which he used to sing. A village committee was formed after the funeral, and £62 subscribed in a few minutes. On Monday evening the subscriptions had reached to upwards of £100.

DR. JOHN H. PATTERSON.

We have received the following additional particulars respecting this meritorious officer, whose death we recorded in our obituary last week:—

Dr. John H. Patterson, Deputy Inspector-General of Hospitals and Fleets, died at Bournemouth on May 1. He was appointed Assistant-Surgeon, July, 1838; Surgeon, November, 1845; Staff Surgeon, December, 1861; Deputy Inspector-General, October, 1868. Served in the Crimea during the whole of the late Russian war, and was Senior Medical Officer on the Sea of Azof for the entire period operations were carried on there. After the battle of the Alma, when several hundred wounded Russians were left on the field, as Senior Surgeon present he was unremittingly employed for two days in superintending the removal of the wounded there from the field of battle to the hospital transport, and also in the performance of Surgical operations previously to their being transferred to the Hospital at Odessa. He afterwards served as Staff Surgeon of Deptford Dockyard; but his health having completely broken down from disease contracted in the service, he was compelled to be invalided. In addition to the above-mentioned services, he served during the civil war on the north coast of Spain from 1838 to 1840; and during the expected Chartist riots in London in 1848 he received the thanks of the Lords of the Admiralty, through the Medical Director-General, for attendance at Somerset House on that occasion.

MEDICAL NEWS.

King and Queen's College of Physicians in Ireland.—At the monthly examinations held on May 13, 15, and 16, the licence to practise Medicine was granted to the following successful candidates:—

Crosbie, Leslie.	Nugent, Edward Joseph.
Fitzgerald, Michael.	Turner, Charles Palmerston.
M'Swiney, Myles O'Connell.	Woods, William.
Middleton, William Henry.	

The Midwifery diploma was granted to the following:—

Fitzgerald, Michael.	M'Swiney, Myles O'Connell.
Middleton, William Henry.	Turner, Charles Palmerston.

Royal College of Surgeons of England.—The following Members of the College, having undergone the necessary examinations, were admitted Licentiates in Midwifery at a meeting of the Board on the 22nd inst.:—

Bland, George, L.R.C.P. Lond. and L.S.A., Macclesfield, diploma of Membership dated January 26, 1872, of St. Bartholomew's Hospital.
Parkes, William Edmund, L.S.A., Birmingham, April 30, 1872, of Queen's College, Birmingham.

Two candidates were referred to a written examination, and three candidates were rejected.

Fellowship Examinations.—The half-yearly examination of candidates for the diploma of Fellow of the Royal College of Surgeons was commenced on Saturday last, when fifty-eight gentlemen entered for the *Primary*—viz., thirteen Members of the College of from three to twenty-five years' membership, thirty-nine who had passed the *Primary Membership*, and six who had not undergone any previous examination. Of the fifty-eight candidates, twenty-three were rejected, and the following passed, viz. :—

Adams, James, student of St. Bartholomew's Hospital.
Andersen, Richard John, of the Belfast School.
Ashby, Henry, of Guy's Hospital.
Browne, George Buckstone, of University College.
Chaffers, Edward, M.R.C.S. and L.S.A., of St. Thomas's Hospital.
Colgate, Henry, of University College.
Gibbings, Ashley, of King's College.
Greensill, Edward Samuel, of St. Bartholomew's Hospital.
Haig, Percy de Haga, of St. Bartholomew's Hospital.
Harrisen, Charles Edward, of St. Bartholomew's Hospital.
Hetley, Henry, of Guy's Hospital.
Houghton, Walter Benoni, of University College.
Ilott, Herbert James, of St. Bartholomew's Hospital.
Jacobson, Walter Hamilton Acland, of Guy's Hospital.
Jameson, Hampden Gurney, of University College.
McKay, Henry Kellock, of Guy's Hospital.
Nicholls, Henry Alfred Alford, of St. Bartholomew's Hospital.
Odell, William, of St. Bartholomew's Hospital.
Owen, Charles William, of St. Thomas's Hospital.
Owen, Edmund Blackett, M.R.C.S., of St. Mary's Hospital.
Palmer, Frederick John Morton, of Guy's Hospital.
Paul, Frank Thomas, of Guy's Hospital.
Sawtell, Tom Henry, of St. Bartholomew's Hospital.
Schlesinger, Barthold Maurice, of St. Mary's Hospital.
Snell, George, of Guy's Hospital.
Stefficker, William, of Guy's Hospital.
Sympson, Thomas, M.R.C.S. Eng., L.R.C.P. Edin., of St. Bartholomew's Hospital.
Thomas, Andrew Appleby, M.R.C.S. Eng., of Guy's Hospital.
Teetell, Edward, of St. Bartholomew's Hospital.
Vincent, Henry Bird, of St. Bartholomew's Hospital.
Vines, Sidney Howard, of Guy's Hospital.
Webber, William Littleton, of St. Bartholomew's Hospital.
Wherry, George Edward, of St. Thomas's Hospital.
White, Ernest William, of King's College.
Whittle, Edward George, of University College.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, May 16 :—

Davies, John Hopkyn, Lampeter, S. Wales.
Maberly, Frederick Herbert, Birmingham.
Murphy, Robert William, Hobart Town, Tasmania.
Murrell, Clement Frederick Fenn, Great Yarmouth.

As Assistants in Compounding and Dispensing Medicines:—

Barnes, Edward, Hilsea, Portsmouth.
Cowley, Henry Williamson, Nottingham.
Russell, Matthew, Whitehaven.
Tansley, Arthur James, Stow, Staffordshire.
Turner, Joseph Kitchin, Whitehaven.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

BARRETT, JAMES MATHIAS, L.R.C.S.I., L.M.—Medical Officer for the Kilcullen Dispensary District, Naas, co. Kildare.

BETTS, JOHN, L.R.C.P. Lond., M.R.C.S.—Medical Officer and Public Vaccinator for the Fourth District of the Malmesbury Union, *vice* E. Smith, M.R.C.S. Eng., L.S.A., deceased.

CLARKE, SAMUEL, L.R.C.S.I., L.K. & Q.C.P.I., L.M.—Medical Officer for the Drum Dispensary District, Cootehill, co. Cavan.

GIBSON, J. BURNS, M.D.—Medical Officer to the Bideford Dispensary, *vice* Dr. Hoyle, deceased.

HAINES, ALFRED HENRY, M.R.C.S. Eng., L.S.A.—Medical Officer for the Long Sutton District, Holbeach Union, Lincolnshire.

JACKMAN, RICHARD HAYES, L.R.C.S.I., L.A.H., L.M.—Medical Officer for the Holyeross Dispensary District, Thurles, county Tipperary.

KIDD, GEORGE H., M.D., F.R.C.S.I.—Medical Officer to the Masonic Female Orphan School, Dublin, *vice* Dr. T. E. Beatty, deceased.

LOW, DAVID, M.B., C.M.—Assistant-Physician to the Perth County Asylum.

MCLAY, WILLIAM—Assistant-Apothecary to the Dispensary, Parliamentary-road, Glasgow.

O'BRIEN, P. C., M.D., M.S.—Medical Officer for the Askeaton Dispensary District, Rathkeale, co. Limerick.

RAWSON, EDWARD ALBERT, L.R.C.S.I., L.M., L.S.—Medical Officer to the Carlow Fever Hospital.

REID, JOHN, L.F.P.S. Glasg.—Parochial Medical Officer for the Troon District of the Parish of Dundonald, Ayrshire.

RITCHIE, A. RAMSAY, M.D., L.R.C.P., and L.R.C.S. Edin.—Parochial Medical Officer for Monifeth, Forfarshire.

SHEPPARE, WALTER, M.D., M.R.C.S., L.M.—Medical Officer for the Third District of the Alten Union.

BIRTHS.

BANKART.—On May 19, at 19, Southernhay, Exeter, the wife of James Bankart, M.B., of a daughter.

BARNES.—On May 18, at Dorset House, Ewell, Surrey, the wife of G. R. Barnes, M.D., of a daughter.

CHARLTON.—On May 17, at Fareham, Hants, the wife of Egbert Charlton, M.D., of a daughter.

ELLERY.—On May 16, at Ridgway, Plympton, Devon, the wife of R. Ellery, L.R.C.P., M.R.C.S., L.S.A., of a daughter.

THOROWGOOD.—On May 19, at 61, Welbeck-street, Cavendish-square, the wife of John C. Thorowgood, M.D., of a son.

WILBE.—On May 19, at York Lodge, Finchley-road, N.W., the wife of R. Haydock Wilbe, M.D., of a son.

MARRIAGES.

DE MORGAN—WRIGHT.—On March 13, at Graham's Town, South Africa, Edward Lindsey De Morgan, M.R.C.S., son of the late Augustus De Morgan, to Ada Margaret Wright.

HAYES—WEBB.—On May 7, at St. Michael's Church, Basingstoke, Hawkesley Roche Hayes, L.R.C.P. Lond., M.R.C.S. Eng., L.M., son of the late Francis Hayes, A.M., M.D., of Bandon, Cork, to Cassandra Charlotte, elder daughter of Charles Webb, M.R.C.S. Eng., L.S.A., J.P., Basingstoke, granddaughter of the late Tobias Frere, Esq., of Stamford Brook, Chiswick.

MABERLEY—DENING.—On May 8, at Trinity Church, Great Malvern, Frederick Herbert Maberley, L.R.C.P. Edin., M.R.C.S., L.S.A., 10, Crescent, Birmingham, to Elizabeth Salter, third daughter of the late John Dening, Esq., Pitt, Ottery St. Mary's, Devon.

MOORE—SMITH.—On May 21, at Plymouth, Milner Montgomery Moore, M.R.C.S., L.R.C.P. Lond., third son of the late Edward Duke Moore, Esq., of Arlington-street, Piccadilly, to Marie Caroline, eldest daughter of Robert Henry Smith, Esq., Army Control Staff.

OLIVER—GALT.—On April 16, at St. James's Cathedral, Toronto, Canada, William Silver Oliver, M.D., Staff Surgeon, to Elizabeth Alice, eldest daughter of the Hon. Mr. Justice Galt, of Toronto.

THOMSON—FINLAY.—On May 16, at Lochleven Lodge, Trinity, Edinburgh, John W. Thomson, M.D., Brechin, to Jessie Bannatyne, daughter of William Finlay, M.D., Trinity.

WORMALD—HOOD.—On May 16, at St. Matthew's, Croydon, Edward, second son of John Wormald, Esq., to Annette, elder daughter of the late Sir W. Charles Hood, M.D.

WRIGHT—SHAW.—On May 18, at St. Stephen's Church, Dublin, Edward Perceval Wright, M.A., M.D., F.R.C.S.I., Professor of Botany in the University of Dublin, to Emily Charlotte (Amy), second daughter of Lieutenant-Colonel Ponsonby Shaw, late of her Majesty's Madras Army.

DEATHS.

BRUCE, GEORGIANA HALDANE, widow of the late Walter Bruce, M.D., at 20, Lansdowne-crescent, Edinburgh, on May 3.

COOKESLEY, Lieutenant J. F., Royal Artillery, youngest son of the late J. M. Cookesley, M.D., of Boulogne-sur-Mer, at Cherra Poonjee, India, of liver complaint, brought on by exposure and privation during the Looshai campaign, on April 4, aged 31.

CORMACK, WILLIAM HINE, Purser in the Royal Mail Packet Company's Service, eldest son of Sir John Rose Cormack, M.D., of Paris, at Nova Friburgo, Brazils, after a long and painful illness, on April 8, aged 28.

HURLOCK, ELIZABETH MARY, wife of the Rev. Joseph Hurlock, M.A., M.D., at Brighton, aged 64.

JACKSON, PETER NEVILL, Surgeon Scots Greys, second son of H. W. Jackson, Esq., Risten Grange, Beverley, at Portobello, Edinburgh, on May 14, aged 43.

JAMIESON, JEMIMA BROWN, wife of Robert Jamieson, M.A., M.D., L.R.C.S., Physician to the Royal Lunatic Asylum of Aberdeen, at Elmhill, Aberdeen, on May 17.

MONTGOMERY, AMELIA, wife of James Montgomery, M.D., and youngest daughter of the late Rev. Robert Dillon, M.A., vicar of Gulval, Cornwall, on May 14, at Penzance, in the 72nd year of her age.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

AMERSHAM UNION.—Medical Officer for the Workhouse, and Medical Officer for the Amersham District. Candidates must possess the qualifications required by the Consolidated Orders of the Local Government Board. Applications and testimonials to be sent to Mr. Henry Bedford, Clerk to the Guardians, on or before June 11.

BROMPTON HOSPITAL FOR CONSUMPTION.—Resident Clinical Assistant. Applications, with testimonials, to be sent in on or before June 3. Further particulars may be obtained at the Hospital.

CANCER HOSPITAL.—Surgeon. Candidates must be registered Members of the Royal College of Surgeons of England, practising only as consulting Surgeons. Applications, with testimonials, to be addressed to the Chairman of the Weekly Board, at 167, Piccadilly, and to be sent in on or before June 4.

GLOUCESTER DISPENSARY.—Dispenser, registered under the Pharmacy Act, and otherwise duly qualified. Apply to George Whitcombe, Esq., Gloucester, from whom further particulars may be obtained.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

LEOMINSTER UNION.—Medical Officer for the Workhouse and No. 1 District. Applications, with testimonials, to be sent on or before June 7, to Mr. Edwin Gregg, Clerk to the Guardians, Leominster.

LONGTOWN UNION.—Medical Officer. Candidates must be duly qualified in accordance with the regulations of the Local Government Board. Applications to be sent on or before June 1, to Mr. C. B. Hodgson, Clerk to the Guardians, Carlisle.

Middlesex Hospital.—Lectureship on Psychological Medicine. Applications must be sent to the Dean of the Hospital not later than June 18.

North Riding Infirmary, Middlesborough-on-Tees.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

Strand Union.—District Medical Officer. Applications and testimonials and qualifications to be sent to the Guardians of the Strand Union, 6, Bow-street, W.C., on or before May 25.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Newbury Union.—Mr. Hawkins has resigned the Second District; area 20,633; population 6899; salary £140 per annum.

Strand Union.—The St. Martin's-in-the-Fields District is vacant; salary £150 per annum.

APPOINTMENTS.

Chertsey Union.—John R. Milsome, M.D., L.R.C.P. Lond., M.R.C.S. Eng., to the Chertsey District and the Workhouse.

Chorlton Union.—Robert E. Hammond, M.R.C.S. Eng., L.R.C.P. Lond., to the Gorton District. George R. Brebner, B.M. and M.C. Univ. Edin., to the Openshaw District.

Huddersfield Union.—Frederick C. G. Ellerton, M.R.C.S. Eng., L.S.A., to the Lindley District.

Newcastle-upon-Tyne Union.—Jonathan Dalgleish, M.R.C.S. Eng., L.S.A., to the Sixth District.

New Forest Union.—Henry Viant, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Eling District.

Stafford Union.—Charles H. Greaves, M.R.C.S. Eng., L.S.A., to the Stafford District and the Workhouse.

Tamworth Union.—Spencer Edmonds, M.R.C.S. Eng., L.S.A., to the Clifton District.

West Ward Union.—A. Lindsay, B.M. Univ. Glasg., L.R.C.S. Edin., for the Shap District.

Weymouth Union.—Wm. T. Boreham, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Abbotsbury District.

The Princess Alice.—Dr. Hoffmeister left Cowes on Saturday for the New Palace, Darmstadt, to be present at the confinement of H.R.H. the Princess Louis of Hesse, which is expected shortly.

The Royal Medical and Chirurgical Society have issued cards for a *conversazione* at 53, Berners-street, on Friday, June 7, at 9 p.m.

Dengue fever is very prevalent at Calcutta.

A cottage Hospital is to be erected at Chippenham.

We learn from Monte Video that a disease resembling yellow fever appeared in the squares on April 27, and a military cordon was established aronnd the affected districts. Buildings were closed, and the inhabitants forcibly conveyed in two Government steamers to Flores Island to perform quarantine.

A Caution.—Mr. David Davies, Surgeon, of Leominster, has been fined £1 and costs for having twice kissed a lady who came to consult him as to the beating of her heart, and which he declared beat "naturally enough."

The body of the late Mr. Peter Nevill Jackson, Surgeon Scots Greys, was removed from Portobello to the Waverley Railway, Edinburgh, for conveyance to Beverley, on Saturday last, followed by the officers and men of the Scots Greys, the 93rd Highlanders, the Royal Artillery stationed at Leith Fort, and H.M.S. *Favourite*, in the presence of between 40,000 and 50,000 spectators. The bands of the Scots Greys and the 93rd played during the route.

It is stated, says the *Homeward Mail*, that in the Tanjore district no fewer than nineteen persons in every 100,000 die annually from snake-bite. Taking the population according to the census this would give nearly 330 deaths per annum in that district alone, and assuming the rate of mortality over the whole Presidency of Madras to be only half that which prevails in the Tanjore district, and the population to be 30,000,000, we get the startling total of close on 3000 people annually dying from snake-bites.

Poor-law Medical Officers' Association.—A meeting of the Council of this Association and of the committee appointed last March to watch the progress of the Public Health Bill through the House, will be held at the Medical Club, 9, Spring-gardens, on Tuesday, May 28, at 7.30 p.m., for the purpose of considering the amendments of the clauses relating to Poor-law Medical relief, and of taking such further action as may appear desirable.

The Lyons Congress.—The following gentlemen have sent in their adhesion to the Congress:—Mr. Henry Lee, Dr. Herbert Davies, Mr. Critchett, Mr. T. Bryant, Dr. Brewer, M.P., Deputy Inspector-General Gordon, C.B., M.D., Surgeon Wagner, U.S. Army, Dr. Thorowgood, Dr. Corfield, Dr. De Styrap, Dr. C. R. Drysdale, Dr. A. H. Jacob, Dr. Henry Harris, and Dr. G. Bolster. Mr. Victor de Méric had previously sent his adhesion direct to Lyons.

Collegiate Prizes.—The following are the subjects for the prizes for the present and ensuing year at the Royal College of Surgeons, viz.:—The Collegial Triennial Prize, consisting of the John Hunter Medal, executed in gold, to the value of fifty guineas, or, at the option of the successful author of the dissertation, of the said medal executed in bronze, with an honorarium of £50. The subject of this Prize is—"The Structure and Functions of the Medulla Oblongata, including the Connexions of the Central Nerve-roots." The dissertation may be illustrated by preparations and drawings. Jacksonian Prize: The amount of the dividend, between £10 and £11, received from the trust. The subject for the prize for the present year (1872)—is "The Diseases of the Nose, including those of the Sinuses connected with it, and their Treatment." The dissertation may be illustrated by drawings, preparations, etc. The subject for the prize for the ensuing year (1873) is—"Ununited Fractures." The dissertation may be illustrated by drawings, preparations, etc.

Presentations.—Dr. Robert Cocks, of Dundee, and Mrs. Cocks have been presented with a French clock and silver salver and other plate of the value of £600. The clock bears the following inscription:—"Presented to Robert Cocks, Esq., M.D., Dundee, by his patients on the occasion of his retiring from general practice, as expressive of their high esteem and high appreciation of his Professional character and talents. May, 1872." The salver bears the following inscription:—"Presented to Mrs. Cocks, in connexion with a gift to Dr. Cocks from his patients on the occasion of his retiring from the general practice of his Profession. Dundee, May, 1872." The presentation was made in the Albert Institute Hall, in the presence of a large assemblage of the principal residents—Provost Yeaman presiding.——Mr. John Binns has been presented, in the Public Hall, Haslingden, with a silver salver, tea and coffee service, and a timepiece, of the value of £145, by 190 subscribers.

University of Glasgow.—List of Degrees conferred during Session 1871-72.—*Doctors of Medicine and Masters in Surgery:* James Caithness, Scotland; John P. MacIntyre, West Indies. *Doctors of Medicine:* John H. Arbuckle, M.B., Scotland; Hugh Arthur, M.B., Scotland; Samuel Biggart, M.B., Ireland; John Booth, M.B., England; John E. Brodie, M.B., Scotland; Murdoch Cameron, M.B., Scotland; Neil Carmichael, M.B., Scotland; William Crawford, M.B., Scotland; Girdharlal Ratanlal Daphtary, India; William Dougan, M.B., Scotland; Frederick B. Fisher, M.B., England; Robert Forsyth, M.B., Scotland; William W. Fulton, M.B., Ireland; James Galloway, M.B., Scotland; John Gardner, M.B., Scotland; James St. Clair Gray, M.B., Scotland; Robert Hamilton, M.B., Scotland; James P. Heeney, Ireland; John Percival Hunt, England; W. Goodfellow Laidlaw, M.B., Scotland; John Lonie, M.B., Scotland; Thomas Lyle, M.B., Ireland; James M'Connochie, Ireland; Alex. William M'Farlane, M.B., England; William M'Lachlan, M.B., Scotland; Robert Ayre Smith, M.B., England; Peter Stewart, M.B., Scotland; Robert D. Taylor, Scotland; Archibald Templeton, M.B., Scotland; William Wyllie, M.B., Scotland. *Bachelors of Medicine and Masters in Surgery:* John Adams, Scotland; William S. Anderson, Scotland; Thomas Arthur, Scotland; John Banks, Scotland; George Calderwood, Scotland; Edward E. Campbell, Scotland; John Caskie, Scotland; James Cathcart, Ireland; William Clark, Scotland; William Clements, Ireland; John Craig, Scotland; James Diamond, Scotland; Henry H. Dunbar, Scotland; Samson Gemmell, Scotland; William Haldane, Scotland; John W. Herd, Scotland; John Josiah Jones, Wales; James Kennedy, Ireland; David N. Knox, M.A., Scotland; Thomas M'C. Lees, Scotland; William Leith, Scotland; John C. Maddever, Scotland; John Miller, Scotland; Andrew Black Morrison, Scotland; Robert Murdoch, Scotland; Charles McBride, Scotland; John D. Macdonald, Scotland; Thomas Scotland, Scotland; Peter Stewart, Scotland; John Strang, Scotland; Robert Turner, Scotland; David Young, Scotland. *Bachelors of Medicine:* Zalnoor Allee Ahmed, Assam; William B. Allin, England; James C. Burnett, England; William L. Cunningham, Scotland; William J. Fleming, Scotland; David G. Kennedy, Ireland; George Ronald, Scotland; Christopher Strang, Scotland. *Masters in Surgery:* William Gardiner, M.D., England; William Marshall, M.D., Scotland; Peter H. M. M'Kellar, M.B., Scotland; John Harris Ross, M.D., England. The following gentlemen were named as entitled to Honours, to High Commendation, and to Commendation, on account of distinguished merit at the various Examinations for the Degrees of M.B. and C.M.:—I. *Honours:* John D. Macdonald, M.B., C.M.; Samson Gemmell, M.B.,

C.M. II. *High Commendation:* William S. Anderson, M.B., C.M.; Thomas Scotland, M.B., C.M. III. *Commendation:* George Ronald, M.B.; William B. Allin, M.B.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. A. S.—So far as we can promise anything, the paper on "Hay Fever" shall be inserted. "Seasons roll on," etc.

Dr. Newbould, Gisborne, Australia.—Post-office order received, with thanks.

S. D. C.—The "Dublin Manual," or Meadows.

Quis Custodiet ipsos Custodes?—Our malicious "devil" involved us last week in as pretty a clerical error as could be wished. Referring to the Oxford Natural Science Examinations, we questioned the exactness of the title of Hermann's work, which should have been "Grundriss," *not* Grunedins.

The Mrs. Day Fund.

	£	s.	d.
Amount previously reported 436	1	0	
Hitchman, Dr., Cheltenham	1	0	0
Evans, Dr., Hertford ...	1	1	0
Barker, Dr., Hornsey ...	1	1	0
Hewett, Prescott, Esq., London	5	5	0
St. John, Rev. A., Edgbaston	3	0	0
Widow of an M.D.	1	0	0
Reynolds, Dr. Russell, F.R.S., London	2	2	0
Elliee, E., Esq., M.P., St. Andrews	5	0	0
Forbes, J. G., Esq., London	5	0	0
Davis, Dr., Bath	1	0	0
Greenhill, Dr., Hastings...	1	0	0
Lackersteen, Dr., London	1	1	0
Forbes, Dr. John, London	1	1	0
Hounsell, Dr., Torquay ...	1	1	0
Stirling-Maxwell, Sir W., Bart., Kew	10	0	0
Lush, Dr. Vawdry, Weymouth	1	1	0
X. Y. Z.	2	0	0
Penil, Dr., Rye	1	0	0
Birkett, Dr., London ...	1	0	0

Subscriptions may be sent to Dr. Richardson, F.R.S., 12, Hinde-street, W.; Dr. Paul, Camberwell House, S.E.; or to Dr. Sedgwick, 2, Gloucester-terrace, Hyde-park, W.

Dyte *v.* The St. Pancras Guardians Appeal Fund.

Dr. Bathurst Woodman begs thankfully to acknowledge the receipt of the following additional subscriptions to this fund. It is earnestly requested that intending contributors will be kind enough to forward their subscriptions as early as possible, as the list must be closed at the end of June, when a full statement of receipts and disbursements will be sent to each contributor.

6, Christopher-street, Finsbury-square, E.C., May, 1872.

	£	s.	d.
Edwin Bush, Esq., Frome	0	10	0
Dr. Chaldecott, Chertsey	0	10	0
Dr. Drew, Sheffield	0	10	6
Dr. Green, Rawtenstall	0	5	0
Dr. Harley, Saffron Walden	0	10	6
Dr. F. Hawthorn, Uttoxeter	0	10	6
Roderick W. Henderson, Esq., Rickmansworth	0	10	6
Dr. Hewitt, Windsor ...	1	1	0
Hy. Horton, Esq., Eardisley	0	10	6
Dennis De Berdt Hovell, Esq., Clapton ...	1	1	0
Dr. Hughes, Woolwich.	0	10	6
Dr. Jackson, Washington	1	0	0
P. A. La Farque, Esq., Coventry	0	3	6
J. Mackie, Esq., Darlington	0	5	0
G. H. Macnamara, Esq., Uxbridge	0	10	0
F.S. Manisty, Esq., Wrexham	0	10	0
F. Manning, Esq., Ipswich .	0	10	0
James Milward, Esq., Cardiff	0	10	6
William Meadowcroft, Esq., Colchester	0	12	0
R. B. Nason, Esq., Nuneaton	1	1	0
T. W. Popplewell, Esq., Bolsover	0	5	0
W. E. Porter, Esq., Lindfield	0	10	0
Dr. Ramsbotham, Amwell-st.	0	10	6
Thos. Robinson, Esq., Alton, Cheadle	0	10	6
Dr. Sinclair, Liverpool .	0	5	0
Henry Stear, Esq., Saffron Walden	0	10	6
Dr. Sutro, Finsbury-square .	1	1	0
W. F. Teevan, Esq., Portman-square.	1	1	0
Dr. S. Ward, Finsbury-circus	1	1	0
F. F. Welsh, Esq., Saffron Walden	0	10	6
Dr. Wilson, Newchurch .	1	1	0
Dr. Woodward, Worcester .	0	2	6
A. B.	1	1	0
A Small Fee	0	2	6

Monsieur Henry Dunant.

Some friends of M. Dunant, founder of the international work in favour of the wounded in war, now make an appeal to the public in his favour.

This important charitable work, in which M. Dunant took the initiative eleven years ago, has exhausted all his resources; and while so many victims of war have benefited by his labours, he himself has, in promoting this work, been reduced to a state of pecuniary difficulty.

The work of M. Dunant, published soon after the Italian war, and entitled "Un Souvenir de Solferino," pointed out the insufficiency of the means existing after that great battle to meet the requirements of the wounded and the urgent necessity there was of instituting a system of volunteer help for similar occasions; that work, translated into almost every European language, may be considered as having given the great stimulus to the various societies since organised under the Red Cross of Geneva.

Besides this, M. Dunant is the promoter of the Convention of Geneva. It is to his personal activity and to his perseverance and incessant efforts, to his travels throughout Europe during several years, that can be attributed this first diplomatic treaty in favour of humanity—in fact, it is owing to his own labours and initiative that the societies of the Red Cross have been founded in the divers countries of the Continent, in Berlin as well as in Paris, according to the plan he traced in his works.

Since then misfortune has overtaken M. Dunant, who possesses now actually nothing, having sacrificed his own private fortune, and having devoted himself entirely to this work of charity and mercy. A few of his friends have formed themselves into a committee in Paris for the purpose of drawing attention to his circumstances, and, if possible, obtaining the means of relieving his misfortune.

Deputy Inspector-General Dr. Gordon, C.B., Dover, has kindly undertaken to receive and forward contributions; and it is accordingly requested that such friends in England as desire to assist will be pleased to communicate with him. Subscriptions addressed to the undersigned will also be thankfully received by M. Baron Dutille de la Tuque, 2, Rue Mosnier, Place de l'Europe, Paris. (Signed)

Comte de Flavigny, President of the French Red Cross Society in favour of Wounded in War.
Elie de Beaumont, Member of the Institute of France, President of the Universal Alliance of Order and Civilisation.
F. Marbeau, President of Société des Crèches.
The Marquis of Forbin Janson Sarcin de Tassy, Member of the Institute of France.
Comte de Hondetot, Member of the Institute of France.
F. G. Eichhoff, Member of the Institute of France.
L. de Cazenove.
Colonel Staaff, Military Attaché of the Legation of Norway and Sweden.
Fulton Cutting, of New York.
The Baron Dutille de la Tuque.

N.B.—Her Majesty the Empress Augusta of Germany was the first who gave M. Dunant a token of her munificence.

[A true copy.—C. A. Gordon.]

A Query in Physics.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In a recent discussion the following question was presented to my mind, a solution to which I have as yet failed to glean from any elementary works on Natural Philosophy. I trust you will aid me by giving me your opinion in the Correspondent's column of the *Medical Times and Gazette*. Regarding cohesion as a distinct force, is it supposed that this force is convertible into other natural forces, such as heat, electricity, etc., etc.? To illustrate the objects of my question—Is the fluid condition of water due to the conversion of cohesive force into a *larger* amount of heat (specific) by the peculiar molecular constitution of water, just as the more viscid condition of oils, albumen, etc., might be due to a *smaller* amount of heat derived from cohesion; the amount of heat, etc., generated depending wholly upon the nature or molecular condition of the material considered? Perhaps you may consider this an unreasonable question, but as I cannot see my way out of the maze, I trust you will kindly lend me a light upon the subject. I enclose my card.

I am, &c.,
Burry Port, May 18. A. L.

How to utilise Criminals.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—It may be interesting to your correspondent "Calumet," to know that the above subject formerly occupied considerable public attention in non-professional journals, and was put to a practical test on several occasions. He will find in the first volume of the *Gentleman's Magazine*, that on "Saturday January 2, 1731, there was great talk of an experiment to be made on Charles Ray in Newgate, a malefactor, reprieved on that occasion. It was said to be in order to discover whether deafness is not to be cured by purging. The tympanum was to be cut by an instrument in order to demonstrate whether the hearing proceeds from the tympanum or the nerves that lie between that and the conceptor of the ear, it being the opinion of some that deafness is principally occasioned by obstructions in the said nerves." Again, *The Daily Post-Boy* of December 29, 1731, published some proposals for castrating criminals, extracted from a pamphlet published in Ireland, showing that if this plan were adopted, and 500 examples made, it would have such an influence upon the wicked that our judges and juries would have much less business on their hands.

"That castration would cool the heat of those guilty of rape and nameless offences," and (adds the *Gentleman's Magazine*) "that as theft and rapine often run in the blood, such a law would disable a set of vile people from leaving their pernicious breed behind them."

Hector Boetius affirms that the ancient Scots gelded such as laboured under madness, or infectious distempers, which they thought might be communicated to their offspring.

Perhaps "Calumet" has forgotten that only a few years ago the bodies of all murderers executed at the Old Bailey were given to the College of Surgeons, and by the Council of that institution distributed to the anatomical schools in this metropolis. This has since been repealed, to the loss of the schools. When George Foster was executed for murder on January 18, 1803, Professor Adini, on a visit to this country, subjected the body to the galvanic process, under the inspection of Mr. Thomas Keate, Mr. (afterwards Sir) Wm. Blizard, that veteran anatomist Mr. J. C. Carpue, and several other gentlemen. Some curious and horrible contortions took place: the eyes opened, legs kicked out, the right hand was clenched and raised, and Mr. P. William Paas (the beadle to the Surgeons' Company), who was officially present, received such a violent blow, and was so alarmed, that he was at once taken home, and died soon after, never having recovered from the shock. The late Sir William Blizard, of the London Hospital, always took a great interest in the experiments on the bodies of these criminals, many of which I witnessed "when George III. was King." Mr. Clift, the Conservator of the Hunterian Museum (who, with his son, was always present), kept a record, which I believe is now in the possession of his successor, Professor Flower, F.R.S. Mr. W. Home Clift was very successful in the portraits he took of all these criminals, both male and female.

I am, &c., T. M. S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Allow me to express my entire concurrence in the proposal of your correspondent "Calumet," in your issue of May 18, to make use of convicts under sentence of death for murder, for the purpose of elucidating by experiment important questions in the etiology and treatment of disease. The proposal is not open to any objection on moral grounds. Those who wilfully destroy human life may fairly be required to contribute to the knowledge of the means of preserving it, and in no way could they more effectually do so than by becoming the subjects of experiment. There can be no doubt that the slow progress of Medicine is due to the fact of its having hitherto had so few facilities of resorting to experiment, that great interest of discovery so freely employed by the other sciences, and without which they could not advance as they do. Physiology, aided by experiment, is making rapid strides, while the treatment of disease, guided as it is by the unsteady light of observation, improves very slowly. It is idle to expect that the public will seriously consider the question of sanitary reform and submit to the pecuniary burdens which such reform involves, while the most conflicting opinions exist in the Profession as to the mode in which the different zymotic diseases are propagated. How can Medical

men be competent to advise regarding the prevention of these diseases while such radical differences of opinion exist among themselves regarding the fundamental question of the manner in which the diseases are propagated? is a question constantly asked, and one to which it is not easy to give a satisfactory answer.

In the time of George II., convicts under sentence of death were employed for the purpose of determining experimentally the safety and value of inoculation as a preventive of small-pox, and with decisive results. That the same method of investigation has not been applied in other questions is due entirely to the fact that the public has not realised the incalculable benefits to mankind that would flow from experiment being associated with observation in the discovery of the laws that regulate the propagation of zymotic disease.

Dr. Burdon-Sanderson and others are endeavouring to obtain this knowledge by experiments on the lower animals. The results Dr. Sanderson has already obtained are of the greatest value; but the constitution of the lower animals differs so much from that of man, that the inferences warranted by such experiments cannot be extended to man without much reserve.

The *Medical Times and Gazette* of December 10, 1870, No. 1067, urged the expediency of utilising convicts in the manner now suggested by your correspondent, and I hope it will again and again press the subject upon public attention. The ultimate adoption of the proposal is certain. Medical knowledge is of too vast importance to mankind for its extension to be left much longer dependent upon observation, when by the association of experiment with observation it would make more progress in a year than it has hitherto done in a century. I am, &c., SCRUTATOR.

May 18.

COMMUNICATIONS have been received from—

Mr. J. MILLIGAN; Mr. PATTERSON; Dr. C. A. GORDON; Mr. TERVAN; Dr. FOX; Dr. M'INTOSH; Dr. B. HAWKINS; Dr. NEILD; Mr. J. C. BROUGH; SCRUTATOR; Dr. THOROWGOOD; Mr. J. LIDDLE; Mr. LEWIS FARLEY; Mr. W. H. ROBINSON; Mr. J. CHATTO; Dr. PHILLIPS; Mr. T. M. STONE; Mr. HENRY MORRIS; Dr. LIONEL BEALE; Dr. ABBOTTS SMITH; Mr. ELLERY; Dr. GAIRDNER; Dr. ALDIS; S. D. C.; Dr. J. WICKHAM BARNES; Dr. PROSSER JAMES; Dr. CORFIELD; Mr. W. BATHURST WOODMAN; Dr. SEDGWICK; Dr. W. STRANGE; Mr. H. W. BUDD.

BOOKS RECEIVED—

Science Primers, No. 2—Chemistry, by Professor Roscoe, No. 3—Physics, by Professor Balfour Stewart—Modern Turkey, by J. Lewis Farley—Case of Measles associated with Hæmorrhagic Variola, by Charles H. Robinson, M.D.—On Affections of the Heart, by Horace Dobell, M.D.—Report of the Committee of the Stewart Institution for the Education, etc., of Idiotic and Imbecile Children, Dublin.

PERIODICALS AND NEWSPAPERS RECEIVED—

Dumfriesshire and Galloway Herald and Register, May 15—New York Medical Journal—Journal of Psychological Medicine—Australian Medical Journal—Melbourne Argus—Isle of Wight Herald—Lincoln Journal—Glasgow Herald—Medical Cosmos—Philadelphia Medical Times.

APPOINTMENTS FOR THE WEEK.

May 25. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Prof. Roscoe, "On the Chemical Action of Light."

27. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. Sir W. Gull. Bart., M.D., and Dr. Sutton, "On the Pathology of the Morbid State commonly called Chronic Bright's Disease, with Contracted Kidney."

29. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

SOCIETY OF ARTS, 8 p.m. Meeting.

30. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

GRESHAM COLLEGE, 7 p.m. Dr. E. Symes Thompson, "On Prescriptions."

LONDON INSTITUTION, 7½ p.m. Walter Noel Hartley, F.C.S., "Experimental Evidence against the Spontaneous Generation of Living Things."

ROYAL INSTITUTION, 3 p.m. Prof. Tyndall, "On Heat and Light."

31. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

GRESHAM COLLEGE, 7 p.m. Dr. E. Symes Thompson, "On Mineral and Vegetable Tonics."

ROYAL INSTITUTION, 9 p.m. Mr. E. J. Poynter, "On Old and New Art."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 18, 1872.

BIRTHS.

Births of Boys, 1116; Girls, 1034; Total, 2150.
Average of 10 corresponding weeks, 1862-71, 2011 3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	659	609	1268
Average of the ten years 1862-71	688·1	611·7	1299·8
Average corrected to increased population	...	...	1430
Deaths of people aged 80 and upwards	...	...	40

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	4	8	2	1	8	...	1	2	3
North ...	751668	22	12	7	2	24	2	2	2	4
Central ...	333887	2	4	2	...	14	...	1	...	...
East	638928	8	6	2	...	10	...	5	...	2
South	966132	18	17	3	2	17	...	2	8	5
Total	3251804	54	47	16	5	73	2	11	12	14

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·589 in.
Mean temperature	47·5°
Highest point of thermometer	67·8°
Lowest point of thermometer	34·8°
Mean dew-point temperature	43·2°
General direction of wind	N.E.
Whole amount of rain in the week	1·95 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 18, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending May 18.	Deaths Registered during the week ending May 18.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·1	2150	1268	67·8	33·4	47·5	8·61	1·95	4·95
Portsmouth ...	115455	12·1	69	62	62·4	33·4	46·2	7·89	1·61	4·09
Norwich	81105	10·9	52	36	61·5	34·0	45·5	7·50	0·88	2·24
Bristol	186428	39·8	117	83	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	56	32	60·6	38·0	46·5	8·05	0·60	1·52
Birmingham ...	350164	44·7	255	125	60·8	38·5	46·5	8·05	0·66	1·68
Leicester	99143	31·0	80	54	66·2	38·7	48·0	8·89	0·48	1·22
Nottingham ...	88225	44·2	68	40	66·1	37·3	48·2	9·00	0·55	1·40
Liverpool	499897	97·9	392	242	61·1	35·2	46·8	8·22	0·37	0·94
Manchester ...	352759	78·6	285	197	63·7	40·0	48·0	8·89	0·22	0·56
Salford	127923	24·7	108	57	61·7	36·9	47·1	8·39	0·14	0·36
Oldham	84004	20·2	60	34	...	...	...	...	...	...
Bradford	151720	23·0	113	96	60·5	37·8	47·7	8·72	0·30	0·76
Leeds	266564	12·3	219	129	59·0	38·0	47·1	8·39	0·78	1·98
Sheffield	247847	10·9	177	108	59·0	38·0	45·3	7·39	0·67	1·70
Hull	124976	35·1	112	65	60·0	38·0	46·2	7·89	0·47	1·19
Sunderland ...	100665	30·4	67	53	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	121	52	53·0	36·0	44·4	6·89	0·32	0·81
Edinburgh	205146	46·3	123	129	53·0	50·0	43·7	6·50	1·90	4·83
Glasgow	489136	94·8	407	277	...	...	...	...	...	...
Dublin	310565	31·9	182	175	63·7	29·5	48·2	9·00	0·54	1·37
Total of 21 Towns in United Kingd'm	7393052	31·0	5213	3314	67·8	29·5	46·6	8·11	0·73	1·85

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·59 in. The highest was 29·83 in. at the beginning of the week, and the lowest 29·39 in. on Saturday morning.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2456 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

LECTURES ON
EXCISION OF THE HIP-JOINT.

By HENRY HANCOCK, V.P.R.C.S.E.,
Senior Surgeon to Charing-cross Hospital.

[*Continued from page* 483.)

THE following cases are of great interest:—

C. L., aged 9, admitted into Charing-cross Hospital July 5, 1870, was a thin, scrofulous child. She had had a severe fall about three years previously, and had been attended at home for about a year, during which time she limped about the house. Afterwards she became an in-patient at King's College Hospital, where she remained for three months. When admitted into Charing-cross she was quite unable to walk. Iodide of iron and cod-liver oil, with good food, and extension by means of the sand-bag, were employed; but three months after her admission an abscess formed on the outside of the thigh, burst, and continued to discharge more or less for about six months. She now became so weak and emaciated that it was necessary to remove the head of the femur and part of the great trochanter. During the operation, in attempting to rotate the limb so as to evert the head of the bone, the femur broke in two places—at the junction of the middle and upper, and middle and lower thirds. When the head of the bone was removed, the shaft was found to be reduced to a mere thin shell of bone, so that doubts arose whether the limb should not be at once removed at the hip-joint; but the patient was too feeble to admit of this proceeding. Accordingly, the limb was placed on an interrupted splint. She gradually rallied after the operation, and in the course of two months the bone was found to have thoroughly united, the patient having gained flesh and strength. At the present time (January 10, 1872) there is still a slight discharge from a small opening on the outer side of the thigh.

W. M., aged 7, admitted to Charing-cross Hospital November 15, 1870, with symptoms of inflammation of hip-joint. Extension by means of sand-bag, tonics, and good food were of no avail. After some weeks an abscess formed on the outer side of the thigh, and was allowed to burst. It continued to discharge until March 8, 1871, when I excised the hip-joint, taking away the head and part of the great trochanter, also removing a little dead bone from the acetabulum. An interrupted thigh-splint was applied, and the case went on well for about six weeks, when the child became very restless, and the almost continuous movement of the head of the bone in the soft parts caused profuse suppuration both on the inside and outside of the thigh, and the child began to lose ground—the belly became swollen, the skin dry and scaly, and the countenance pale and waxy. In August the child was fastened in a wire cradle (designed by Mr. Slack, the House-Surgeon), which fixed the pelvis and both legs so firmly that the child could be turned on his side or lifted out of bed without the slightest movement in the joints of the lower extremities. From that time the child has slowly and steadily improved. The sinuses are now obliterated, and the patient is fast progressing towards recovery.

There are few operations to which the terms "bloody and formidable" can be applied with less propriety than to excision of the hip-joint. Considering the extent of the wound, there is scarcely an operation in the whole range of Surgery attended with a smaller loss of blood. Of the whole number of cases recorded, although many are described as "attended with very trifling bleeding," "not a single vessel required to be tied," etc. In three cases only—viz., one operated upon by Mr. Cæsar Hawkins, another by the late Mr. Ure, and one by myself—has the employment of ligatures been alluded to.

Among 139 cases, I find three recorded as having died from hæmorrhage, but in two of these even those most opposed to the operation would hardly be inclined to attribute death to that cause. In one the hæmorrhage resulted from ulceration of the profunda vein, and death occurred the night of the operation. Mr. Haynes Walton thus describes the case:—

"When I next saw him (a boy aged 12) he was reduced almost to a skeleton. Abscess and fever had done their worst. Soon after another abscess was opened by me on the inside of the thigh. From this escaped much fetid pus and blood. Thus reduced there remained but one chance for life—namely, an operation—and to this I accordingly resorted. At 8 o'clock the same evening there came on a serious hæmorrhage, and before I could reach him he was dead. A post-mortem examination showed that the abscess had extended deep amongst the adductor muscles of the thigh, isolating the great arteries and veins. Where the profunda vein joined the femoral was a small ulcerated opening, and from this had arisen the fatal hæmorrhage."

In the other case, operated upon by Mr. Cæsar Hawkins, we are told—

"A little hæmorrhage took place after the child's removal into the ward, but this was easily arrested, and the progress was pretty favourable for two days. Still it would appear that the little patient's strength had been so materially diminished by the long-continued diseased state of the hip that she could not withstand the shock of the operation, as she died on the third day after it."

Nor is the operation by any means of the formidable nature which has been implied. It must be remembered that the patients operated upon are always more or less attenuated. True that in some instances the parts in the neighbourhood of the joint are thickened by the preceding inflammation and suppuration, but in all these the greater trochanter may be felt as a girdle for the incision, and it is, after all, a mere matter of dissection, and that of a very easy and rough character, to enable us to reach the joint or the displaced head. In the latter case some Surgeons, with Mr. Cæsar Hawkins, prefer a longitudinal incision over the great trochanter; others, with Sir William Fergusson, employ a crucial incision. Mr. Anthony White made a longitudinal incision beginning above the head of the femur and carried downwards in the course of the femur, with a second at right angles backwards towards the nates. Others, again, make a semilunar incision, the concavity directed forwards towards the groin. For myself I infinitely prefer the crucial system. It gives room for manipulation; it is attended with less tension from post-operative swelling and inflammation; and its posterior limbus, as the patient lies in bed, affords a ready and depending outlet for any discharge which may occur, and thus diminishes the risk of collections of matter in the neighbourhood of the adductor muscles, which sometimes occur in the progress of cure.

In concluding this subject, I would again urge the value of time in the performance of this operation. I have now performed it some seven times, and can safely affirm that the earlier the operation is performed after constitutional treatment has failed, the better is the ultimate result, and more favourable are the symptoms intervening between the procedure and convalescence. When the head of the bone within the acetabulum is carious, where there is abscess at the same time, if, in spite of the constitutional treatment, rest, and extension of the limb, the pain continues and the patient's health fails, the operation, in my opinion, should be performed without further delay, even though there may not be any grating sensation present when the joint-surfaces are pressed together. The preparation upon the table, taken from one of my most successful cases, was removed exactly under these circumstances. There were caries, suppuration, rapid depreciation of health, but no grating sensation—in fact, the acetabulum was sound—and the patient did remarkably well. When to these symptoms the grating be added, that is an additional reason against further delay, as then in all probability the acetabulum is implicated in the mischief; though this is not always the case, as it has been found that this grating has arisen from the friction against a detached neck of the femur or a necrosed portion of bone lying loose within the acetabulum, the latter being sound. This was the case in the instance of the little boy, whose head of the thigh-bone was broken into pieces by being thrown down and kicked. In that case, also, the acetabulum was free from disease.

Mr. Holmes, who acknowledges that he began with a strong prejudice against the operation, frankly admits having met with several cases in which it certainly appeared to him to have saved life. He has well pointed out how rarely spontaneous recovery occurs in cases of hip-joint disease attended by suppuration, whilst the head of the femur remains *in situ*, and the ulcerated surfaces are still in apposition. I willingly admit that when spontaneous dislocation does occur, it may be regarded as a process of natural cure; but how few, comparatively, of patients suffering from hip-joint disease ever live to reach this stage. The operation is comparatively new, and the cases have been recorded in sufficient numbers to compare its success with our other operative procedures: and from the results it may at first sight appear to have been less successful than some others. It has been attempted to compare its results with those of amputation of the thigh; but this is a very

fanciful proceeding, and those who trouble themselves to do so should remember that in these cases the selection is not as to this or that method—it lies between this operation and death. And when we regard the results of the operation, we should also remember what were the results of hip-joint disease when left to itself uncombated by operative procedure. Had these cases been tabulated, as those submitted to operation have been, we might then have drawn a legitimate comparison between the two, and I have very little doubt that the results would have supported the operation. Unfortunately, we have not the materials for this test, but we have all the opportunity of judging of the amount of suffering—nay, anguish—which this operation is destined to alleviate.

Look at a patient wasted to a shadow, confined to his bed, not for months only, but for five years, in constant pain and in the last stage of exhaustion from long-continued discharge; with his leg flexed on his thigh, that thigh drawn across its fellow, or with the knee forcibly fixed and pressed against the opposite thigh; constantly lying on one side, his spine becoming distorted, his chest thrown forward, and his hands employed night and day incessantly maintaining a fixed position of the limb and endeavouring to prevent the intense agony which occurs on the slightest movement, his sufferings still further increased by the bedsores resulting from the constant pressure on the one hip. Often must we all have witnessed this sad scene. Often have I seen the poor hip-joint patient, when all others have slept, still wakeful and anxiously engrossed with the one and monotonous task of steadying the knee and preventing movement. Look again at this patient when the operation is performed; his position now is no longer one of constraint and torture, it is one of comparative comfort and rest. He no longer suffers the extreme pain, he no longer exists in dread of the slightest movement or jar, his countenance loses its drawn and anxious appearance, the hectic subsides, and whatever may be the ultimate result, we at all events have the satisfaction of feeling that by the operation we have alleviated a very vast amount of suffering, almost beyond the power of endurance. Few indeed can there be amongst us who have had any experience of the operation without having observed the great and almost instantaneous relief following its performance. And who will not agree with me in feeling that this fact alone is a very strong argument in favour of its adoption?

But, it is argued, carious hip-joint disease is so essentially of scrofulous origin that those suffering from it are predisposed to consumption, and are consequently unable to bear the shock of so severe an operation.

I do not think the existence of incipient phthisis or lung mischief an insuperable barrier to its performance. We have all seen, with the late Mr. Solly, how frequently lung mischief subsides after the removal of local drain or irritation. In determining the propriety of performing this operation in cases where there is much cough and expectoration, I am guided chiefly by the same rules which govern me in operating for fistula in ano. When the fistula in ano supervenes on cough and expectoration, I leave the patient alone; but when the fistula is the original disease, I regard the violence of the cough and the amount of expectoration only as so much evidence of the extent of constitutional derangement from local irritation, and I lose as little time as possible in performing the operation, and in thus relieving the constitution from the cause of disturbance. I have here collected the particulars of 136 cases of resection of the hip-joint—of these sixty-eight, or exactly one-half, are reported to have terminated successfully; forty-eight, or a fraction above one-third, died; and the result of twenty-two, or a fraction below one-sixth, was doubtful.

In arriving at these numbers I have reckoned as doubtful all those reported as "doing well" and those in progress of treatment, so that the sixty-eight successful cases may be taken as completed.

With regard to the forty-eight cases reported to have terminated fatally; few operations have been subjected to a more rigidly impartial scrutiny than has this, an impartiality which in some instances appears to me to simulate injustice. For instance, of these forty-eight, ten are stated to have died of phthisis and lung disease; of these ten, three died some months after the operation; in one the patient was cured, was able to walk well, so much so that he was employed to deliver circulars about from house to house. Several months afterwards he was attacked by lung disease, and died, nineteen months after the operation, of consumption. In another, the patient died of consumption three years after he had entirely recovered from the operation. And again, in the case of a child, aged 4½ years, it was operated upon in May, 1862, and was doing well; in July it was attacked by measles; in September it had so far recovered that it was able to move about and go to Brighton, where it caught cold, ending in pneumonia, in which condition it was returned in December to the Children's Hospital, where the disease merged into chronic consolidation of the lungs, terminating in general œdema and death.

One patient cured of the operation died two months afterwards of dysentery; in another, again, the caries is said to have returned; at the end of the year the limb was amputated at the joint, and the patient died the same evening. Again, a patient died the evening of the operation of hæmorrhage; the profunda vein was found ulcerated. One died of bed-sores; one of cerebral disease, eighteen months after the operation; one of caries of the vertebræ; one of Bright's disease, eleven weeks after the operation; one of psoas abscess; one of uræmic convulsions; one of diphtheria; four of pyæmia—or 8 per cent. of the fatal cases; in this respect contrasting very favourably with excision of the knee-joint, wherein the proportion of deaths from this cause is given as high as 28 per cent., or seventeen as against sixty.

Setting aside those cases in which death cannot fairly be connected with the operation, I find that the period between that proceeding and the death of the patient varied from three days to ten months, or upon an average fifty days. The earliest period of life at which the operation has been performed is 3 years, the latest 61 years of age.

The ages at which the operation has been performed and the number of times at each year of life are as follows, arranged according to frequency:—

Age.	No. of operations.	Successes.	Deaths.	Age.	No. of operations.	Successes.	Deaths.
8	13	10	3	17	2	2	0
10	11	7	4	21	2	2	0
6	6	4	2	32	2	2	0
7	6	5	1	3	2	1	1
11	5	3	2	23	2	1	1
14	5	4	1	2	2	0	2
9	4	3	1	54	2	0	2
13	4	2	2	49	1	1	0
4	3	2	1	15	1	0	1
5	3	2	1	24	1	0	1
12	3	1	2	27	1	0	1
18	3	2	1	30	1	0	1
20	3	0	3	32	1	0	1
26	3	2	1	41	1	0	1
16	2	2	0	61	1	0	1

So that at the respective ages of 16, 17, 21, 32, and 49, all the operations were successful.

At the age of 7 the rate of success against deaths is 5 to 1; at 14, 4 to 1; at 8, rather more than 3 to 1; at 9, 3 to 1; at 4, 5, 6, 18, and 26, 2 to 1; at ten, rather less than 2 to 1; at 11, 3 to 2; at 3, 13, and 23, equal; at 12, 1 to 2; and at the ages of 15, 20, 22, 24, 27, 30, 33, 41, 54, and 61, all died.

Whilst the number of operations performed has been infinitely greater during the first ten years of life, its success has been equally great as compared with any succeeding period of ten years. Thus, up to 10 years of age we find the number of operations performed 48; of these, 34 succeeded, 14 (or 29 per cent.) died. From 11 to 20, both included, the number of completed cases was 27; of these, 15 recovered, 12 (or 44 per cent.) died. From 21 to 30, both inclusive, the number of completed cases were 12; of these, 5 only recovered, 7 (or 58 per cent.) died. From 31 to 40 were 3 cases; of these, 2 recovered, 1 (or 33 per cent.) died. From 41 to 50 were 2 cases; of these, 1 succeeded, 1 (or 50 per cent.) died. From 51 to 60 were 2 cases; both died; and above 60 was one case, which died also.

Since writing the above I am indebted to Mr. Carr Jackson for the following unique case, wherein excision of the head of the femur having failed, he amputated the limb at the hip-joint with the most perfect success:—

R. J., aged 19, was admitted into the Great Northern Hospital in March, 1871. He had always enjoyed good health up to the commencement of this disease of the hip-joint. He had no recollection of any injury beyond what might have occurred after exhaustive runs after the hounds. Mr. Jackson first saw him in February, 1865. He had then been confined to his bed for three weeks, but had suffered great pain from hip to knee for twelve months previously, with gradually increasing lameness. There was neither suppuration nor sinus, but the head of the femur rested on the body of the pubis, the limb being shortened and everted. Mr. Jackson reduced the dislocation (the bone returning to the socket with a snap), and applied a splint. In the following August an

abscess formed behind the great trochanter, and subsequently others in various parts of the thigh. He became emaciated suffering from hectic and night-sweats, so that in 1871 it was decided to excise the head and great trochanter of the femur. When this was done the softened condition of the shaft induced Mr. Jackson to remove a slice, in the hope of arriving at healthy bone, but without success. The acetabulum was not much implicated. The operation, however, was followed by great improvement in his general health. The wound made in the operation and several of the sinuses healed, and he left London for the country able to bear some weight on the limb. Unhappily, the improvement was only temporary: one by one the sinuses reopened, and his health became so much impaired that Mr. Jackson, with the concurrence of his colleagues Messrs. Gay and W. Adams, amputated the thigh at the hip-joint, cutting through a very strong fibrous investment which united the end of the femur to the pelvis. The examination of the bone after amputation showed that two actions were going on—the one reparative, by which a number of osteo-plastic growths projected from the upper portion of the bone; the other destructive, reducing the bone to a soft spongy consistence having the character of expended cancellous tissue with numerous foramina and suppuration within. The patient completely recovered.

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture VI.

The order Carnivora consists of a large number of species which in the main are flesh-eaters, existing by the direct destruction of other vertebrated animals, and having their general organisation adapted to the requirements of such a mode of subsistence. As, however, is usually the case, we find within the limits of the order, as defined by structural characters, considerable modifications of habits and diet, some of the minor groups conforming strictly to the usual characteristics of the order, while others afford instances of great elasticity in this respect, even in a state of nature adapting themselves readily to modifications of external circumstances. Thus, among the bears the species which inhabit the arctic regions are exclusively carnivorous, feeding on seals and fish, while those of the plains and jungles of India are mostly vegetable feeders. The same circumstance is observed in the genus *Canis*, and in both cases without any important modification of the organs concerned in obtaining or assimilating their food.

The terrestrial carnivora (sub-order *Fissipedia*) are divided primarily into three groups, having respectively the dog, the cat, and the bear, for types. As the first-named animal is one of the best known, as well as the most generalised form of the order, its structure may be conveniently taken as a representative of the whole. The dentition of the dog presents the well-known characteristics of the order. The incisors are small, so as not to interfere with the penetrating action of the great sharp-pointed canines, which, by their distance apart, have great power in seizing and holding the struggling prey; the anterior teeth of the molar series are pointed or scissor-like, to tear and cut the flesh from the bones, while the posterior ones alone retain the crushing form from which their name is derived. In the more specialised carnivorous animals, as the cats, the incisors are still smaller, the canines more powerful and wider apart in proportion to the length of the jaws, and the crushing is quite subordinate to the cutting part of the molars. On the other hand, in the omnivorous forms the reverse conditions prevail.

The lips are well-developed and lax, and the mucous membrane of their edges, especially in the lower lip, developed into sensitive fringe-like processes, but the lining of the cheeks is smooth. The edge of the lower lip is firmly bound to the gum in the interval between the canine and the first premolar tooth.

The hard palate is raised into a number of curved transverse ridges, notched at the edge. The posterior margin of the soft palate is thin, rather produced in the middle, but scarcely so much as to constitute an uvula. The tonsils consist of large horizontally-placed crescentic depressions, the concavity of the crescent turned downwards, with a thin overhanging upper margin, and a thickened projecting lower lip, which folds back or upwards into the depression. Numerous openings of follicles are scattered over the floor of the depression.

The tongue is long and lax, narrow at the base, then widening and keeping much the same width to near the apex, which is rounded. The upper surface is flat, with a median linear depression in the anterior half, and the edges are thin, especially in front. The conical papillæ are small and closely set in regular oblique lines, forming a sort of Mosaic pavement all over the dorsal surface. They are conical in form, with the apex directed backwards, with one principal and several accessory points, and covered with a hard epithelium. At the tip and edges of the tongue they are longer and softer, and at the base they become very large, single-pointed, and quite soft. Among these are scattered, especially near the sides and anterior part of the organ, numerous round-tipped fungiform papillæ, which are, however, not very conspicuous, being scarcely larger than the others. There are but two circumvallate papillæ of moderate size. The free part of the under surface of the tongue is quite smooth. There is no sublingua like that of the lemurs; but on the lower part of the frænum is a bifid leaf-like salivary papilla, on the under surface of which the submaxillary ducts open. Extending backwards on each side of the frænum is a conspicuous fold of lax mucous membrane, not enclosing any glandular structures.

In the median line of the anterior part of the tongue, near its lower surface, is the organ known as the *lytta*, or "worm," about which the popular superstition of the ancients still exists in many parts of this country.(a) It is a cylindrical, or rather fusiform, body, about one-fourth of the whole length of the tongue, and of the thickness in the middle of a crowquill, loosely embedded in the areolar tissue of the septum, from which it is very easily detached. In front it is firmly connected with the mucous membrane forming the tip of the tongue; behind it gradually tapers off, and ends in a fine filament, which is lost in the areolar tissue of the septum. No muscular fibres are inserted into it. Its structure has been erroneously described as fibro-cartilaginous; but it consists of fibrous tissue, fat, and striped muscular fibres. The latter are mostly disposed transversely in a layer which forms the upper or dorsal part of the body, the inferior part being chiefly made up of fat cells enclosed within a strong fibrous sheath. The use of this peculiar body is not clearly understood, but it is supposed to give support by its rigidity to the long extensile tongue while lapping water. No marked difference in this function has, however, been observed in dogs in which the lytta has been extirpated.

The parotid gland is moderately developed in the form of a crescent embracing the lower side of the cartilaginous external auditory meatus. It consists of pale, loose lobules. The duct leaves the lower and anterior part, running directly forwards across the masseter muscle, and opens in the cheek opposite the middle of the great upper sectorial tooth, or fourth premolar. The submaxillary gland is rather larger than the parotid, and more solid and rounded. It is situated behind the angle of the jaw, coming in contact with the parotid above. Its duct runs forward in the usual course, to open, as before mentioned, on the under surface of the sublingual salivary plate. There is no sublingual gland in the situation in which it is found in the Primates, but an elongated lobular glandular mass lying in contact with the *posterior* half of Wharton's duct and with the submaxillary gland itself, and having a duct which accompanies Wharton's duct in the course, lying to its inner side and opening close to it, has been considered the sublingual by some anatomists, as Bernard,(b) while others, as Meckel, look upon it as an accessory submaxillary gland. The buccal glands are greatly developed, forming a conspicuous linear series, opening by distinct orifices in the smooth mucous membrane of the mouth opposite the lower teeth from the first premolar backwards, and ascending posteriorly to the angle of the mouth. The zygomatic gland appears to belong to the same system. It is a distinct oval lobular mass, about the size of a hazel-nut, situated beneath the anterior root of the zygoma in the floor of

(a) Λύσσα (*Attic*, λύττα), madness. "A small worm under the tongue of dogs, which being extracted is supposed to prevent their becoming mad" (Dunbar's Greek Lexicon). For the anatomical structure and supposed functions of this organ see Virchow's "Archiv," vol. vii. (1854), p. 170 and p. 571.

(b) *Cf.* Bernard, "Leçons de Physiologie Experimentale" (1856), p. 90.

the orbit. Its duct is very short, and opens with the mouth close to the hinder edge of the posterior molar tooth.(c)

The stomach of the dog consists of a sub-globular cardiac portion and a narrower pyloric portion, separated by a well-marked constriction. The mucous coat is soft and smooth, and in the greater part thrown into small irregular folds when the organ is contracted, but which are quite effaced when it is distended. In the pyloric compartment there are permanent folds of the lining membrane, producing strongly marked ridges, irregularly reticulating, except near the pylorus, where they become more longitudinal. The great omentum depends from the great curvature, and returns behind the stomach to the root of the mesocolon, with which its posterior layer becomes continuous, without any direct connexion with any part of the intestine. The small intestine is about six or seven times, and the large intestine about the same length as the body, but these proportions vary somewhat in different individuals. The duodenum forms a wide fold loosely suspended by mesentery, passing down nearly to the right iliac region before it crosses beneath the ascending colon and root of the mesentery. The ileum ascends from the left, and passes directly into the ascending colon, the ileo-colic valve being only a slightly marked circular constriction. The colon is simple, without sacculations, and only distinguished from the small intestine externally by somewhat greater diameter. It commences in the right lumbar region, ascends for a short distance, then forms an arch to the left round the root of the mesentery, and descends in a nearly straight direction into the pelvis behind the coil of small intestines. The cæcum is a simple appendage of nearly uniform width (about equal to that of the ileum), attached to the side of the canal, just beyond the ileo-cæcal valve, and with a rounded termination. In a dog of average size it is five or six inches long if uncoiled, but it is normally folded by its mesenteric attachments backwards and forwards several times on itself by the side of the ileum (see Fig. 22). The mucous membrane of the small intestine is covered with long filiform villi, very large and abundant in the upper part, but smaller and less numerous below. Peyer's patches are usually small and confined to the middle part of the intestine. There are no transverse ridges on the mucous membrane, but longitudinal elevations of tolerable regularity are found almost throughout its length. The lining membrane of the colon is smooth, with numerous lenticular solitary glands in its lower half.

Fig. 22.

Fig. 22.—Cæcum of an Arctic fox (*Canis lagopus*): *i* ileum, *c* colon. In the natural position the colon is uppermost. In the domestic dog the cæcum is usually somewhat shorter and less convoluted.

The liver lies across the diaphragmatic end of the abdomen, extending as much to the left as to the right side. The suspensory ligament is in the middle line, and very little developed. The umbilical fissure, Fig. 23, *u*, is very deep, reaching three-fourths of the distance from the free to the attached border, and divides the whole organ into segments of nearly equal magnitude. The lateral fissures extend quite to the attached margin of the liver. The left central lobe, *lc*, is small and simple. The left lateral, *ll*, is by far the largest of the lobes, with a semicircular free margin, usually presenting many irregular notches. The right central, *rc*, is larger than the left central, and is divided into two parts by a deep cystic fissure, within which the gall-bladder, *g*, lies, usually visible on the upper surfaces of the organ. The right lateral lobe, *rl*, is of moderate size, and subtriangular in form; its free border is usually not notched. The caudate lobe, *c*, is nearly as large as the last named, and very distinctly divided from it. It is connected with the Spigelian lobe by a very narrow neck, on which the vena cava lies; beyond this it expands greatly; the right border has a very deep renal fossa. The Spigelian lobe, *s*, is prominent, tongue-like, divided by a notch into a larger (left) and a smaller (right) lobule. The common bile-duct enters the duodenum four to five inches from the pylorus.

(c) For the structure and function of the zygomatic gland of the dog, see Kehrer, "Uber den Bau und die Verrichtung der Augenhöhlendrüse," in Henle and Pfeufer's *Zeitschrift*, vol. xxix., p. 88. 1867.

The pancreas consists of rather loose lobules, and is elongated and narrow. One part (corresponding to the "body" of the human pancreas) lies between the layers of the posterior fold of the great omentum, below and behind the lower border of the stomach, reaching on the left to the spleen, near which it increases in thickness; on the right the "head" is prolonged between the layers of the meso-duodenum, descending on the concavity of the curve of that part of the intestine for about half its length, and sending off a prolongation upwards and to the right from its termination. It has two ducts, one of which joins the common bile-duct before entering the intestine, and the other enters separately several inches lower down.

Fig. 23.

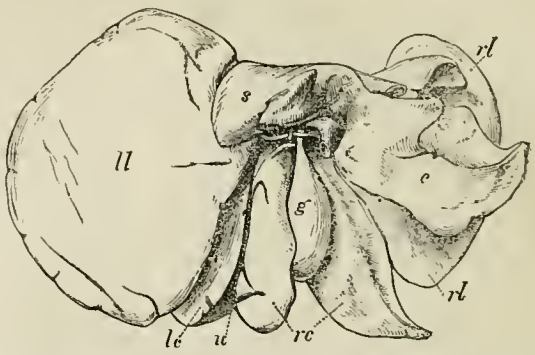

Fig. 23.—Under surface of the liver of a dog: *u* umbilical fissure, *ll* left lateral lobe, *lc* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *c* caudate lobe, *s* Spigelian lobe, *g* gall-bladder.

All the members of the genus *Canis*, including the various species of wild dogs, wolves, jackals, and foxes, as well as the closely allied genera *Lycaon* (Cape hunting-dog) and *Octocyon* (long-eared African fox), appear to agree in all essentials with the common dog in the structure of their digestive organs, especially in the characteristic form of the cæcum.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CLINICAL OBSERVATIONS ON

SOME FORMS OF ENLARGEMENT OF THE PROSTATE GLAND

IN CONNEXION WITH DISEASES OF THE URINARY ORGANS.

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(Continued from page 569.)

The facts of the case first narrated in these observations may be made further available for elucidating others by comparison or contrast with an example of disease arising from a different form of alteration of the same organ—the prostate gland. The case I select for this purpose—one of a class not unfrequently met with in practice—was under my observation at the same time, it so happened, with that first case, when it was approaching its close.

Case 5.—Continued Suffering and Extensive Disease of the Urinary Organs, resulting from Difficult and Imperfect Evacuation of Urine.

Mr. R., aged 70 years, whom I saw with Mr. Jakins, told the story of his malady in a written statement which he prepared for me. A few extracts may be usefully made: "Nearly four years ago, at Scarborough, I drank three or four tumblers a day of the water of the well there, and sometimes kept it too long. A difficulty in passing water came on, and I could not refrain from passing it more than two hours at a time. I underwent (elsewhere) in the same year a course of Medical treatment, taking many medicines—the last steel. From this, as well as from the other medicines, I derived no benefit. Then I had hip-baths at 80°. After that time a catheter was passed (once), and a full pint of urine was drawn off. Three years later I went to a hydropathic establishment," the patient continues; "there the steam-bath, packing, and mustard plasters were used; and I had more than anything tepid baths, which were

occasionally run down to cold. . . . . But after three months persevering I was no better."

When I first saw him, Mr. R. stated that for nearly four years he had to get out of bed not less than five times every night in order to pass water; and that in the daytime the intervals between the periods of evacuation have been one hour—sometimes two hours. He complains that "he is slow to begin, and has to make efforts, when, at times, a stream will come."

He expresses himself much weakened and depressed by his long-continued illness and suffering. He appears so, and upon examination he proves to be so. About a pint and a half of urine is passed daily by voluntary effort; "but a good deal (patient believes) remains behind each time."

A considerable quantity being found with a catheter to remain after the natural evacuation, it was determined to empty the bladder at short intervals. The patient, after having made a trial or two, in which some blood appeared, declined to pass the instrument again for himself; but he came morning and evening some distance to attain what he had found to be a great relief and comfort. The urine was at first pale and opaque—not offensive—but it afforded evidence of deep organic change of the kidney in the form of abundant casts of tubes. Soon after pus was also found. Under an acute attack—pyelitis—the patient sank, four years after a urinary complaint was first recognised by himself.

The condition of the urinary organs was ascertained to be as follows:—Both the kidneys much diminished in size, shrunk, were leather-like to the feel. The pelves of both and their divisions were largely dilated and thickened, and smeared with pus. The ureters likewise were dilated and thickened. The bladder, unnaturally capacious, was in the recent state partly divided into two nearly equal portions—upper and lower—by a transverse constriction. This appearance is effaced in the preparation. A dependent part behind drops from the fundus deeply below the level of the orifice of the urethra; and that dependent part is further deepened by a projection from the prostate. The muscular fibres, much hypertrophied, project in bundles prominently inwards. A sac of considerable size has been formed behind, its orifice being near that of the right ureter. The bladder is thus, as stated in the catalogue, "fasciculated and sacculated." (See Fig. 5.)

The prostate is generally enlarged, but not immederately so, with the exception of the middle lobe. From it a semi-circular outgrowth projects into the bladder at the vesical orifice of the urethra, which it surrounds (Fig. 5, C and E).

Fig. 5.

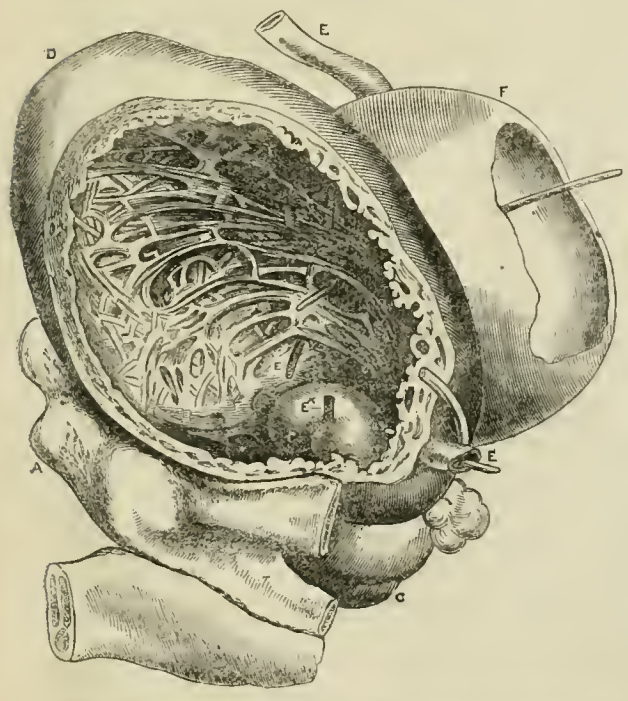

Fig. 5.—A, pubic bones; C, prostate, without and within the bladder; D, urinary bladder; E, ureters; F, sac.

The crescentic outgrowth of the middle lobe was found, by the microscopical observation of Mr. Goodhart, to be "made up of fibrous tissue, condensed connective tissue, and gland structure apparently healthy, but in small quantity." Mr. Goodhart adds—"I think, also, muscular fibre-cells are present, but the parts are so shrivelled that one cannot be certain."

The figure 5 was drawn by Mr. Ford, from the preparation 1982A in the Museum of the College of Surgeons, to which I presented it soon after removal. The bladder is opened on the left side; the pubic bones are below it, with part of the penis; the sac behind. This is laid open. The enlarged and prominent muscular structure of the bladder is represented. The prostate is shown behind the pubes, with a vesicula seminalis at its back part. The crescentic outgrowth of the middle lobe is seen to encircle a black point, E*, which reaches into the orifice of the urethra. Four points of probes or of whalebone indicate the positions respectively of the ureters, the urethra, and the sac.

In order to arrive at the indications of the treatment of such a case as the foregoing it is necessary to trace the sequence of events in the series of morbid changes which has been set forth. As regards the urinary bladder: after the continued formation of an increased quantity of urine—the result of large daily draughts of a mineral water—there occurred frequent need for the evacuation, together with difficulty in attaining the object; and, in consequence, forcing efforts to overcome the difficulty supervened. The discharge of urine being effected as far as was possible, there still remained the feeling "that a good deal remained behind." The obstacle to the free passage of urine was obviously the valvular effect of the outgrowth from the middle lobe of the prostate; and that outgrowth, as it has been already stated, besides obstructing the flow of urine, had another evil effect—it contributed to the detention of urine in the bladder, by deepening its fundus. To the forced action of the bladder the thickened and prominent condition (hypertrophy) of the muscular structure was owing.

The formation of the sac is to be thus accounted for:—The bladder exercises strong pressure on the fluid within it (a pressure increasing in force in all likelihood with the increasing size of the muscular structure), and the natural outlet for the escape of the fluid being interrupted, the membranes yielded at some weaker point—as at an interspace of the muscular fibres. Yielding, the fibro-cellular and mucous membranes were gradually protruded, and constituted the sac. In some cases several are formed. The size such formations attain is often considerable. The increase of the size—often rapid increase—is attributable to the fact that, whatever the size the sac may have attained, the force of the fluid pressure conveyed to every part of its circumference of like extent with the orifice is the same as the force communicated to the fluid at the orifice itself. From this it will be judged how large the pressure over the whole sac is, and how much cause there is for speedy increase of its size.

In the ureters and the kidneys the origin and progress of morbid change was, I apprehend, as follows:—During the forced contraction of the bladder upon the fluid within it (the natural escape being stopped or impeded) the descent through each ureter was arrested, and urine became accumulated in the canal, the pelvis of the kidney included. At the orifice of the ureter pressure was exercised as upon the whole interior of the bladder, and that pressure on the fluid in the vesical end of the little column of fluid in the ureter was communicated with the same force to every part of like extent of the ureter itself and of the pelvis of the kidney. Nay, the pressure must be held to have gone still further. It was conveyed into the substance of the kidney through fluid in the urine-bearing tubules of the organ. So the pressure affected the whole kidney, tubules, and doubtless the bloodvessels connected with them. If the ureter be supposed to have been empty or imperfectly filled with urine proceeding from the kidney when the straining pressure of the bladder begins, the fluid from the bladder is forced backwards into it through its orifice—naturally a minute orifice, but by the progress of morbid action enlarged, thickened, and patulous; and the pressure upwards is the same. It is that strong pressure of the bladder upon the fluid within it and through it on the fluid higher up—whether arrested in its descent or forced upwards, or both—which caused the dilatation and thickening of the excretory apparatus above the bladder, and which caused also the atrophy and disorganisation of the kidney. All the destructive processes originated in the impediment to the discharge of urine by the urethra. When that impediment is occasioned by another cause—as by neglected stricture of the urethra—the history of

the case is for the most part the same, and the story of morbid change the same.

It may here be mentioned that the force of fluid pressure referred to as accounting for the growth and size of a vesical sac, and for the morbid condition of the kidney and ureter, in the preceding case, is an illustration of that property of fluid pressure named in physics "the hydrostatic paradox." An important application of the principle or fact has been made in the construction of the "hydraulic press."

The constant detention of part of the urine was in this case an additional source of discomfort, and probably of evil. This might be inferred from the fact of relief being given by its removal. But inasmuch as, in that instance, it was in association with extensive disease of the urinary organs, it will be well to look at the condition—the persistence of "residual" urine—in a case in which the morbid change of structure did not extend beyond its actual seat—the bladder.

Case 6.—Detention of a portion of the Urine in the Bladder.

In 1851 I saw a gentleman, Mr. H. T., aged about 35, in consultation with Dr. (now Sir William) Jenner. The patient had been ailing for some time, though not suffering from any acute or obvious disease. He felt, as he himself said, "all over unwell." I learnt from Dr. Jenner that there was not—there had not been—an increase of the temperature of the body, or pain, or any apparent organic disease. The urine was voided freely, and in full quantity. There was no indication of an accumulation in the bladder, which was not in any degree above the pubes. The reaction was acid. But it (the urine) was found to contain pus; and this was the only evidence of a morbid condition anywhere. There was no renal disease. Albumen present in the urine was sufficiently accounted for by the pus it contained. In order that the condition of the only organ as to which there was evidence of a morbid state should be ascertained more fully, a catheter was used after the patient had voided urine, and a considerable additional quantity followed by the instrument. Afterwards the bladder was emptied twice daily. All the unpleasant symptoms—the feeling of illness—soon passed away. Mr. H. T. learnt to relieve himself with the catheter. He regained his usual health, and needed no Professional assistance—still, however, using his catheter.

Something of the further history: I have lately seen this gentleman for a local ailment unconnected with the urinary organs. His condition since 1851 may be briefly stated from his own account of it. First, however, it may be well to mention that he is in affluent circumstances, and engages only in such occupation as he desires for his health or amusement. A few years after the illness of which an account has been given, Mr. H. T. became a member of a volunteer corps, and for several years performed the duties of that position. During the whole of the time since his illness (twenty-one years) he has used the catheter without intermission twice daily, morning and evening. He passes urine before the instrument is used, and several times during the day as well. The quantity voided naturally is about half as much as that removed with the instrument, and that proportion remains about as it was at the beginning. It is, however, liable to fluctuation. "Sometimes," writes Mr. H. T., "I have passed water more freely for perhaps a week, and this has been followed by a period of inactivity. Occasionally, though rarely, the bladder all but empties itself. I can in no way account for the change." The general health is good. No inconvenience has been in all those years at any time felt in the urinary organs, nor has any local damage whatever been once occasioned by the use of the catheter.

It was manifest that the whole of the illness this patient felt in 1851 was due to the fact that some urine remained constantly in the bladder.

As to the cause of the inability to effect complete evacuation of urine in this case, the direct evidence was not altogether satisfactory. There was no defect as regards the general nervous system—the nerve-centre or the nerves elsewhere. No muscular paralysis existed, except that of the bladder, to which the malady seemed to be wholly confined. The patient, when closely questioned by his Physician, recalled the circumstance that on one occasion of some engagement in society, while travelling abroad, he deferred the evacuation for an unusual length of time, and he remembered that once afterwards the urine smelt badly. But as he had not felt actual pain, and had not been put to inconvenience requiring special attention, the incident made but little impression on his mind. It is probable that the bladder was unduly distended on that or some other occasion, and that the paralysis was the result. In such circumstances the muscular fibres, being overstretched, lose power, as stated in Cases 3 and 4 respectively. The nerves, it may be presumed, are similarly affected. With such alteration of these structures, the mucous membrane and its blood-vessels do not retain their natural or healthful condition, and pus is formed. The local paralysis—if we may not in the case before us ascribe it with any certainty to forced distension of the organ—must still own a morbid change analogous to that indicated. If, however, that be the true interpretation of the cause of the disability that existed—it is certainly the most probable—the case adds other evidence to that already given by cases of prostatic enlargement as to the mischief that is liable to arise from undue delay of the urinary evacuation. It commonly happens that the paralysis ceases, the muscular fibres regaining their natural power (Case 3).

A sufficient summary of the facts of the case for my purpose here may be as follows:—Continuous detention of a portion of urine after the natural evacuation caused actual illness, and, if not checked, would, it can scarcely be doubted, have caused disease also. The removal of "residual" urine had the effect of restoring the health so impaired. By the same means the beneficial results thus attained have been continued during a long series of years, and without inflicting local or other injury.

With a view to practical conclusions respecting the case of Mr. R. (Case 5), I would now compare or contrast it with that of Mr. M. (Case 1). While the source of all the suffering that existed in both was caused by hypertrophy of the same structure, analysis of the leading facts shows, as regards the first case, that there was an absence of suffering except at intervals; that the general health was not impaired; that the duration of life was not abridged; and that all this was so because the prostate, notwithstanding its large size, did not interfere with the functions of any part of the urinary organs, and, specially as applying to our present subject, did not interfere with the facility (except at intervals) and completeness of the urinary evacuation. While, on the contrary, in Case 5, though the part primarily affected was less augmented in size than in the case just noticed, suffering soon came to be almost constant; the general health was rapidly impaired; death occurred in four years from the first manifestation of local inconvenience, and was the direct result of disease of the urinary organs; the whole train of evils having been caused by unceasing difficulty in effecting the evacuation of urine and the continued incompleteness of the evacuation occasioned by the hypertrophied gland.

Now, and lastly, comes the question which is the sole object of all investigation of the nature of disease, and of tracing the similitudes and differences of examples of any form of disease; namely, the question as to the cure or the method of treatment. The question in the matter before us is—What means might have been used in Case 5 to place it, as far as art could accomplish, in the same favourable circumstances as Case 1; or rather—for the case is the type of a good number, and hence its chief importance to us—what means should be used in other persons with indications of coming disease believed to be similar, in order to hinder or to arrest near the onset the train of the organic changes which grew rapidly to their fatal height in that case? The object to be attained is to hinder or to arrest at the earliest period "the long delay" of which Mr. R. complained, and the forcing efforts to empty the bladder which we have traced working their disastrous effects (Case 5); and at the same time to prevent the detention of residual urine. There is no likelihood that in the senile form of prostatic enlargement or outgrowth now under consideration, any treatment by drugs or other agencies affecting the system generally, whether intended to diminish the presumed cause of the obstruction or to augment the expulsive power, would accomplish the object. The impediment is mechanical, and must be counteracted by mechanical means. The use of the catheter is the resource; but the instrument must be used from the beginning as nearly as possible—from the time the difficulty in evacuating the urine is recognised. Moreover, in order to prevent the straining efforts which worked so much mischief (Case 5), the instrument is to be used as often as evacuation is needed; and therein the patient must minister to himself.

It should be understood that much of the success of management depends on the proper adaptation of the instrument to the case. In Case 1 a long silver catheter of the kind known as prostatic, with a wide curve, was easily passed. The instrument made for that gentleman's own use was designedly constructed with a wider curve than is usual. The rigid material was in that instance not objectionable, being but infrequently used, the whole canal being at the same time free from obstruction to the course of the instrument. In Case 6 an ordinary gum-elastic catheter has been in every way suitable. It has been unchanged in kind or size during the whole period that

an instrument has been used; but in that case there was no prostatic enlargement. I know of several persons, however, who with that enlargement have been passing such instruments for long periods of time—eight to twelve years and upwards; some who pass urine only in that way.

Yet cases are met with in which, while difficulty occurs as to the passage of some instruments, facility is secured by others of a different kind. For many years I have derived much advantage from gum-elastic catheters which I got from Paris. The instruments I refer to differ much from those which have long been in use here; they are more flexible, in a degree limp; they taper towards the end, where they terminate with or without a small grain-like bulb. Another useful form has been added from the same source—one bent near the end (*coudé, elbowed*). Such catheters were long a desideratum at our instrument makers. One had to be supplied from France—a great inconvenience to patients. Recently instruments of the kind I refer to have become procurable in some places here, and of good construction.

Whatever be the form of the catheter or the material of which it is constructed, it is essential that it shall be introduced and withdrawn with ease, and that there shall be no evidence in its use of wound or abrasion, such as is afforded by an appearance of blood.

CASE OF FUSIFORM ANEURISM OF THE FEMORAL ARTERY CURED BY COMPRESSION.

By JAMES SPENCE, F.R.C.S.,
Professor of Surgery, University of Edinburgh.

R. J., SEAMAN, aged 32, admitted into Hospital, January 12, 1871, suffering from a fusiform aneurism of the left femoral artery at its lower part.

On examination, a pulsating tumour is felt in the lower part of Hunter's canal, a little above the point where the anastomotica magna comes off from the superficial femoral. A little fulness, but no projecting swelling is seen externally. The aneurism when defined is about two inches long by one and a half broad, and spindle-shaped.

History.—The patient first felt pain ten days before admission. He is a seaman on board the *Pharos*, and having to walk daily from North Leith to his ship, he noticed that his leg became painful, making him walk lame before reaching the ship. He thought at first that the pain was rheumatic; but as it continued he applied to Dr. M'Bain, R.N., who sent him into the Infirmary.

Patient says that firm pressure over the tumour causes the pain to cease, but when this is removed the pain at once returns and remains, unless pressure again be made.

January 15.—On examination, Mr. Spence decided on treating the aneurism by compression. Patient ordered to take the following medicines:—℞. Potass. bromid. ʒjv., aquæ ad ʒvj.—a tablespoonful every evening; and ℞. Potass. iod. ʒij., aquæ ad ʒvj.—a tablespoonful thrice daily.

16th.—Dr. Watson's "pressure apparatus" was applied to-day over the common femoral (the skin being previously dusted with fine fullers' earth), the weight being so directed as to press upon the common femoral just as it comes out of the pelvis in the upper part of Scarpa's triangle. The weight caused great pain; but the patient was able to bear it, and the circulation through the artery was completely arrested. During the night and day the weight was taken off at intervals. The pulsation became less and less, and ceased in the evening.

18th.—Weight taken off at twelve o'clock to-day, and no pulsation felt.

19th.—To-night, at twelve o'clock, the weight was replaced, as Mr. Spence thought he felt slight pulsation; and it was kept on continuously till the hour of the visit at noon the next day.

20th.—No pulsation. The limb is flexed, a pillow being placed under the knee, which is turned out. Patient told to compress the artery with his thumb, so as to weaken the flow of blood to the thigh. Not only is the knee bent, but the femur is likewise flexed on the pelvis, thus weakening the force of the blood by making a curve in the artery. Ice to be applied over the seat of the aneurism.

27th.—Slight pulsation felt at intervals, and ice kept on constantly.

February 2.—Ice taken off. Patient said that about five o'clock in the morning, when he awoke, there was great itching and irritation over the aneurism; but now (12 noon) all pain had disappeared.

(On January 26 a lighter form of compression—Hoey's compressor—was put on, and a piece of sponge was placed between the pad and the skin to ease the pain.)

February 3.—The light-pressure apparatus was again put on for a short time.

9th.—The patient allowed ale or porter, but any change of pulse to be carefully watched. No thrill felt to-day. The ice has been discontinued since February 2.

March 2.—The patient left to-day cured.

May, 1872.—He has been back once or twice complaining of slight pain; but there is no return of the aneurism. He was advised not to take much exertion, and to avoid straining the limb in any way. I have seen the patient recently, and there is no return of the aneurism.

Remarks on the case of R. J.—The points of interest in this case are—1st. The nature of the aneurism; 2nd. The special conditions of the portion of the femoral artery affected; and, 3rd. The success obtained by the method of treatment adopted. As to the nature of the aneurism: Fusiform aneurisms, formed by dilatation of all the arterial tunics, are admittedly less favourable for the process of cure than lateral sacculated aneurisms, because of the less tendency to the formation of coagulum within the dilatation. The internal coat for some time retains its smooth character, and the current of blood through the vessel sweeps with equal force in all directions, and thus prevents or delays the process of obstruction at the diseased part; hence this variety of aneurism is not favourable for treatment either by ligature or compression. The chances of firm obstruction by a consolidated clot being small, the risk is that the retrograde circulation may gradually re-establish the aneurism after ligature, whilst, if compression be resorted to, the dilated part of the vessel may again become distended by the direct current after the compression is removed. The only condition favourable to coagulation in such an aneurism is that which Sir Charles Bell long ago pointed out—viz., that whenever the coats of an artery, owing to irritation or disease, lose their power of reacting on the blood current, that fluid tends to coagulate, as it would in an inorganic tube, and thus the diseased part will ultimately become obstructed unless the disturbing force of the direct current of blood prevents this taking place. Fusiform aneurism is not common in the lower extremity. I have only met with one instance of it in the popliteal artery, and in that case graduated compression fairly persisted in for upwards of six months failed to effect a cure. I then tied the femoral with complete success. (The case is recorded in my "Lectures on Surgery," p. 622.) Having the result of that case before me, it may be asked what decided me on treating this case by compression in preference to ligature. My decision resulted from a consideration of the peculiar conditions of the part of the femoral in which the disease was situated. The oblong aneurism was in that part of the femoral immediately above the origin of the great anastomotic artery, and as the contents of the dilated portion were quite fluid, such a direct retrograde feeder would have speedily refilled the vessel, and acted as a disturbing element in preventing the formation of a coagulum. Indeed, I determined that, if compression failed, I would cut down upon the vessel in Hunter's canal, place ligatures above and below the dilated part, and tie the anastomotica at the same time, as I considered that ligature by the Hunterian method would not effect a cure under such circumstances. The successful result in this case I believe to be due to the method of compression used. From what I have observed of gradual and graduated compression in my own practice or that of others, I have not been favourably impressed by it. Indeed, I have stated elsewhere as my opinion—"I believe that our success will depend on how far we are able to arrest completely the circulation through the femoral." The compression apparatus of my colleague, Dr. Watson, seemed to me well suited to obstruct thoroughly the circulation through the artery; whilst, from its form and mode of action, the patient would be able to bear the pressure for a sufficient length of time to allow permanent changes to take place in the aneurism. In this case the compression required to be reapplied, in consequence of some doubtful symptoms of returning pulsation, and the compression was assisted by dry cold applied over the aneurism. But these precautionary measures, and also the prolonged rest, were used from a consideration of the character of the fusiform aneurism, to guard against tendency to recurrence of the circulation through the dilated part of the vessel, and to allow time for its obliteration. The result fully justified the opinion I had formed as to the method of treatment.

THE INCUBATION OF SMALL-POX IN UTERO.

By THOMAS SUTTON TOWNSEND,
Resident Medical Officer at the Stanhope-street Dispensary.

THE subject of variolous contagion reaching the fœtus has always been a subject of much interest, particularly so when associated with the fact that the parent, although doubtless transmitting the disease, may herself be so proof against its poison as to allow it to pass through her system without apparently producing any disturbance or symptoms whatever, and yet her offspring, at birth or shortly afterwards, may be found affected with a disease which it has contracted whilst in utero. The following remarkable case will, I think, illustrate this fact, and add another strong proof to those we now happily have of the immense value of vaccination :—

A male infant, 18 days old, was brought to the Stanhope-street Dispensary by its mother in December last. She gave the following history of it:—At its birth it was in an apparently healthy condition, but from the first it had been very fretful and restless. When 5 days old it became feverish, and in a day or two an eruption appeared on its face, and afterwards its hands, which the mother thought was what she was pleased to term "gum rash." To use her own words, "Ten days before coming to me white blisters had taken the places of the red points, and these had increased to their present size, and had turned yellow four or five days ago." Having no one to do anything for her, she had postponed getting Medical advice until she could come to the Dispensary. When I first saw the baby, its face, head, neck, and hands were much swollen, and covered with a copious eruption of semi-confluent small-pox. Its eyes were completely closed, and saliva was running freely from its mouth. The contents of the vesicles were purulent, and, as nearly as one could judge from the history of the case and its appearances, it was the ninth or tenth day of the eruption, or the eleventh or twelfth of the disease—the fatal days—of a severe attack of semi-confluent variola. In a few days the vesicles began to rupture, and desiccation set in. The child did well.

Now, supposing this to be a case of small-pox—and a more typical one could not have presented itself—and taking for granted the fact, which is, I believe, an established one, that the period of incubation of non-inoculated pocks is from ten to fourteen days—at any rate, more than four days—this infant must have contracted the disease while in utero. The mother, aged 24, a strong healthy woman, was at her usual employment until the evening before she was confined. She had not had a symptom or ailment of any kind during the time she was carrying the child or since. Her right arm presented two well-marked vaccination scars, and her face showed here and there a "pit," from a very slight attack of small-pox when a child. "We all had it," she said; and her mother confirmed this statement. About the time of her confinement there was a good deal of small-pox in the neighbourhood; she had been about very much, and had several times passed a house when the clothes and bedding of small-pox patients were being carried out to be disinfected, and on one occasion, shortly before her confinement, she had been much shocked at hearing that a friend had lost three of her children from this disease.

In a paper(a) read before the Medical and Chirurgical Society in 1809, Dr. Jenner gave an account of two cases of small-pox infection communicated to the fœtus in utero under peculiar circumstances. He says it is only under particular circumstances that any proof of the presence of small-pox can be adduced in these cases in which it passes through the frame without producing eruptions or in any perceptible degree disturbing the animal functions. Such proof, however, is afforded by the obvious infection of the fœtus before birth, communicated through the mother, she being already secure from any visible occurrence of the disorder.

He gives two cases illustrating this, one of them exactly analogous to that which I have described—a lady who, a few days previous to her confinement, had met a very disgusting object whose face was covered with the small-pox. The smell and appearance of the poor creature affected her much at the time; and though she mentioned the circumstance on her return home, she had no idea her infant could become infected, having had the small-pox herself when a child. During a few days after its birth the little one seemed quite well; but on the fifth day it became indisposed, and on the seventh small-pox appeared. The pustules were very few in number, and matured completely. Some matter taken from one of them was used for inoculation, and produced the disease correctly. The mother was not sensible of any indisposition herself from this exposure, nor had she any appearance of small-pox.

The second case is that of small-pox in the fœtus, the result of inoculation in the mother five weeks before her confinement. In this case, as in the last, small-pox was produced by inoculating from the pustules.

Dr. George Pearson(b) has described the effects of variolous infection on pregnant women. Dr. Mortimer(c) describes the case of a lady who, when within a fortnight or three weeks of her confinement, had held a conversation at the distance of thirty or forty yards with a person with small-pox in a state of maturation, and gave it her infant.

It was a saying, I believe, of Dr. Jenner, that patients whose faces are swollen a good deal for four days, and who have pretty free salivation, nearly always do well. These two points were very noticeable in the case which has been the subject of this article.

(a) *Med. Chir. Trans.*, vol. i., p. 269.

(b) Duncan's "Medical Commentaries," Decade 2, vol. ix., pp. 213.

(c) *Philosophical Transactions*, vol. xlvi., pp. 233.

REPORTS OF HOSPITAL PRACTICE IN MEDICINE AND SURGERY.

MIDDLESEX HOSPITAL.

FOR notes of the following cases we are indebted to Mr. Pitts, Junior House-Surgeon :—

Case 1.—*Laceration of Anterior Tibial Artery—Amputation through the Knee-joint—Torsion of Vessels.*

(Under the care of Mr. DE MORGAN.)

Walter P., aged 22, admitted March 26, with a lacerated wound of the left leg, caused a short time before admission by falling through a skylight. On the outer side of the left leg, about six inches below the patella, was an oblique cut two inches long, and extending deeply. Blood was flowing freely, and it was evident some large artery was divided, but no vessel could be seen, although the wound was enlarged. From it a piece of glass was removed, and it was then plugged with lint dipped in carbolic lotion.

March 28.—The finger could be passed between the bones to the other side of the limb, and a pulsating artery felt at the bottom. Pulse 108; temperature 100·8°. The dressing was then removed, and the foot found to be quite cold. No pulsation could be detected in the anterior or posterior tibial arteries. A considerable quantity of air was found in the cellular tissue, and the leg was beginning to become gangrenous. 4 p.m.: The leg was amputated at the knee by a short anterior and a long posterior flap; the patella was left *in situ*, and the condyles were not sawn off. The popliteal artery and one or two small vessels were controlled by torsion.

On the following day the stump looked well, the patient had passed a good night, and up to the present time he has been progressing favourably.

Examination of the Wound after removal of the Limb.—Over the inner side of the dorsum of the foot was an irregularly quadrangular outline of dull pinkish-blue discoloration, limiting a dull white central area of skin. The colour of the skin over the centre and the sides of the leg was mottled white and purplish. The arteries of the foot were not felt to pulsate. The soft parts of the foot and leg were emphysematous. At the junction of the upper with the middle third of the leg on the fore and outer aspect was a semilunar-shaped opening in the skin, two inches and a half long, the axis being obliquely downwards and inwards; through this opening was seen torn muscular tissue, along which the finger could be passed to the lower extremity of the popliteal space, and in front of the vessels in that situation—the finger traversing in this course between the upper extremities of the tibia and fibula above the interosseous ligament. Blood and air were effused between the muscles on the front and outer side of the leg and the deep fascia. One inch from its origin, along its front border, some of the superficial fibres of the peroneus longus were seen lacerated. On separating the upper extremities of the peronei, extensor longus digitorum, and tibialis anticus muscles, there was found a space, having the tibia deprived of its periosteum on its inner

boundary, and the fibula deprived of its periosteum on its outer boundary, with softened, lacerated muscle around and extending from the front to the posterior aspect of the limb. Where the anterior tibial artery was passing from the posterior to the anterior surface of the limb, it was laid completely open along its inner aspect for nearly an inch in extent. The vein lying to the inner side of the artery was completely divided; there was also complete division of a large branch of artery spreading into the peroneus longus. The vein accompanying this artery was also divided. Upon the front aspect of the anterior tibial artery was a circular opening on a level with the upper end of the part of the divided vein. The upper end of the divided vein was retracted upwards beneath the tibialis anticus; but when this was seized and brought down to the corresponding lower fragment, the branch of artery which passes into the substance of the peroneus longus muscle was brought down, and was found to correspond with the circular opening in the front wall of the anterior tibial artery. There was a slight laceration of the vein on the outer side of the anterior tibial artery. The tibialis anticus was divided three inches below its upper extremity by an oblique incision passing through nearly the whole substance of the muscle, taking the same direction as the incision in the skin. The posterior vessels were uninjured.

Case 2.—Avulsion of the Right Arm of a woman by falling upon iron railings.

(Under the care of Mr. NUNN.)

Hannah W., aged 62, servant, residing at Broad-street, Golden-square, admitted April 2, 1872. A short time before admission she got on to the roof of the house to see after some work that had been done, and, as it was supposed, she lost her footing, and fell over the parapet. In falling, her arm was caught by the iron railings in front of the house, and transfixed one of them rather above the junction of the upper with middle thirds. It was completely severed, so that for the few minutes before she was taken down she hung only by the sleeve of her dress.

On admission, at 1.30 p.m., she was in a state of severe collapse; her clothes on the right side of her body were saturated with blood, and, on examination, the right arm was found to be completely torn off below the shoulder; the head of the humerus and one inch of the shaft only remained, and the portion of the shaft was very much splintered and driven up into the head. The biceps muscle was torn transversely across at the junction of the tendinous with the muscular portion, and the other muscles, especially the triceps, were very much lacerated. The laceration of the skin was somewhat irregular, and extended around the arm to the same level everywhere, except on the outer surface, where a triangular piece was left about two inches longer than the rest. The rupture through the skin corresponded in position and in outline with the laceration through the muscles. The torn end of the musculo-spiral nerve was three or four inches in length, and the axillary artery was divided about where it becomes brachial; but the other nerves and vessels were torn off very short. The artery had by this time contracted, so that very little bleeding was going on, but it could be seen pulsating. Three or four ribs on the right side were broken about their middle, and the base of the scapula was fractured. She was unable to give any account as to how the accident happened. The splintered pieces of shaft and head of the humerus were removed; the wound was well sponged out with carbolic lotion, and covered in by the skin which remained. The pulse was very weak, compressible, and irregular. The patient was in a state of profound collapse, and so remained until her death the following morning.

On examining the severed arm three hours after the accident, the muscular fibre to the naked eye presented a polished, oily appearance, both in the course of the fibres and at their lacerated surfaces; the muscles were very soft, and the bundles of fasciculi were easily torn from each other. Small fragments of muscular tissue could be drawn out by the forceps into long gelatinous-like strings, as fine or finer than the threads of a spider's web. In microscopic examination there was seen a considerable quantity of minute bright granules, of more or less circular form, and of various sizes, situated in the substance of the muscular fibre, arranged for the most part in a direction parallel with the longitudinal fibrils, but not uniformly so; these were scattered throughout the whole thickness of the fibre, but were most numerous, and in some cases aggregated into masses, a little way from the margin; in some places these rounded granules were of much larger size, as many as five or six times larger than the majority. The muscles of the forearm presented the same features as those of the lacerated parts; these appearances left no doubt of the advanced fatty degeneration of the tissues. The circumference of the humerus was two inches and a half; the thickness of the cortical portion of the bone was less than one-eighth of an inch; the direction of the fracture obliquely downwards and forwards. The medulla of the bone was a mere blood-stained pulp.

Post-mortem Examination of the Body.—Much blood was found effused into the tissues around the shoulder. A comminuted fracture extended across the base of the acapula of the same side. The second, third, fourth, and fifth ribs were broken about their middle. There was a large increase of the normal deposit of fat on the surface of the heart, and on microscopic examination the muscular structure of the heart, as well as that of most of the muscles of the body which were examined, were found in a very advanced state of fatty degeneration.

Case 3.—Compound Comminuted Fracture of the Right Hand—Amputation of Forearm—Torsion of Vessels.

(Under the care of Mr. HENRY MORRIS.)

Wm. Albert M., a lad 15 years of age, engaged as a music-smith, was admitted into Clayton ward, under Mr. Morris, on January 12, 1872. Shortly before admission, while at his usual occupation, his right hand was caught in some portion of the machinery, and so much injury was done to the soft parts of the hand and lower end of the forearm that amputation of the forearm was considered necessary. This was performed below the insertion of the pronator radii teres, by cutting a flap on the extensor side from without inwards and then transfixing. The radial and ulnar arteries were controlled by torsion, the flaps kept together by four carbolised sutures, and the stump covered with Lister's carbolic gauze and oil-silk. On February 20 he was discharged; the wound quite healed, and there was good power of pronation and supination. On examination of the parts after removal, the following conditions were seen:—The integuments of the palm were so lacerated as to expose the tendons, muscles, and nerves, which were all more or less injured; the ulnar artery was torn across. The soft tissues of the radial half of the ball of the thumb were uninjured, as was the thumb itself. The laceration extended for about one inch above the wrist-joint along the forearm. On the dorsal surface the skin was torn transversely in three places. The two distal phalanges of the index finger and all the phalanges and metacarpal bones of the middle and two ulnar fingers were fractured and comminuted; some of the detached fragments of bone, having been turned out from their positions, were lying on the surfaces of the extensor and flexor tendons.

EDINBURGH ROYAL INFIRMARY.

CASE OF LACERATION OF THE PERINEUM—OPERATION—CURE.

(Under the care of Dr. MATTHEWS DUNCAN.)

[Reported by Dr. J. R. HARDIE.]

D. S., AGED 25, admitted to ward 16, November 7, 1871, is married, and has had one child. She complains of inability to retain her fæces. When her bowels are in a natural condition the motions come away without her having the least power to control them, although making the strongest efforts to restrain herself; when troubled with diarrhœa she has no knowledge of their passage, the matters voided coming away by the front. Patient was confined on February 18 last; the labour was precipitate, lasting for about an hour. A midwife attended her. Her present illness followed this confinement. The monthly periods are regular, and she has no other discharge.

On a physical examination being made, the perineum is observed to be lacerated from the fourchette in front backward to the orifice of the anus and through its sphincter, extending up the recto-vaginal septum for fully an inch. On inserting the finger into the gut, there is no tightness at its lower orifice. There is no irritation about the parts.

November 13.—The perineum was restored in the usual manner; nine stitches were put in. Patient ordered one grain of opium night and morning, and to have her urine drawn off by catheter.

18th.—Some discharge from the wound.

20th.—Three sutures removed.

23rd.—One suture removed.

25th.—The remaining sutures were taken out to-day. Some difficulty was experienced with those above the sphincter ani. The perineum is healed up well posteriorly, but anteriorly for about half an inch no union has taken place.

December 24.—On examination to-day per vaginam and per rectum the parts are found to be completely united. Patient has regular and easy passage by the rectum in the ordinary way. Dismissed.

The perineum may be ruptured during an otherwise natural labour by the use of instruments during partnrition, or by the forcible extraction from the pelvic cavity of a large tumour, such as a fibrous tumonr removed by avulsion. It may occur in the middle of the length of the perinenm, or at some point between the fourchette and the sphincter, when it is called central rupture, bnt this is rare; or it may commence at the anterior margin and be produced backwards, which is the most common kind, and the one to which our remarks more especially refer.

When laceration results during a labonr, natural in other respects, we generally find one or other of the following states of the parts to have existed:—The perineum may be too small for the exit of the child's head to take place witbont rupture; in such a case the uterus attempts to put on force enongh to overcome the resistance offered, and if snccessful the head tears up the soft parts and is born. Here the head may be of natural dimensions, but the perineum too small, not possessing material enough to undergo the necessary stretching. The soft parts entering into the formation of the perineum, again, may be in a morbid condition, so that when called on to offer an ordinary amount of resistance to the passage of the child's head, and to dilate gradually before it, it is unfit to do so, tearing up as the head advances. Here there may be material enough, bnt it is not of the proper quality—friable, incapable of being stretched gradually by the amonnt of force which it should in a measure resist, and so giving way. This last condition is what probably most frequently obtains in cases where the perineum is ruptured under skilled Medical supervision.

We now come to a different set of causes, the fanlt not lying in the perineum itself, but in the powers of labour. The uterus may put on an inordinate amount of force—taking the perineum by surprise, does not give it time to dilate, and it gives way. Under snch circnmstances the perineum may be dilatable enough, and might have dilated if the force had been more gradually applied. As it is by mechanical dilatation chiefly—by repeated boring efforts on the part of the body passing throngh it—that the resistance of the perinenm is overcome, and not by spontaneous dilatability of its structure, time is required to effect its opening up.

The rupture of the perineum in the case of S. was probably due to a precipitate labour, the uterus forcing the child's head violently through a perineum which had not been stretched by previous childbearing. The inconvenience to the patient which may result from laceration of the perineum varies in degree according to its extent. When, after the delivery is completed and the parts involved have contracted, it is found that from a quarter to half an inch of perinenm still remains intact, then none of the more tronblesome effects are to be apprehended or likely to present themselves; but if part of the sphincter ani be torn, inability to retain flatulence and liquid stools sometimes ensues. If the whole of the sphincter be divided, all control over the contents of the rectum is lost, and they are evacuated through the common rectal and vaginal opening. One of the most disagreeable of the minor accidents to which a parturient female is liable now exists. In the woman S. the laceration extended through the sphincter ani up the recto-vaginal septum fully an inch, the result being that she laboured under the symptoms described to their fullest extent.

When the rnpture is to the extent first referred to, and the subject of it is likely to bear more children, interference is unadvisable; bnt when the sphincter is involved, and the patient applies for relief, the operation of restoration of the perineum should be had recourse to. This operation has been described in the case of procidentia reported in this journal, and as the only differences are merely those of degree, they can be appreciated readily without further description. The removal of the sutures in a case like this, when the rent extended so far up the recto-vaginal septum, requires care. Those holding together the divided vaginal and rectal wall and the sphincter are high up, difficult to reach, and must be taken away cantiously, so as to avoid reopening the freshly united surfaces. If there be many it is advisable not to remove them all at one sitting. The operation may be performed immediately after delivery is completed, or it may be delayed for some months, until the patient has completely recovered. Owing to the better state of the woman's health, and the absence of discharges, the latter period is to be preferred. Union has never failed to take place in Dr. Duncan's cases, and he has never required to have recourse to a second operation in the same subject.

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Medical Times and Gazette.

SATURDAY, JUNE 1, 1872.

SIR WILLIAM GULL AND DR. SUTTON ON CHRONIC BRIGHT'S DISEASE WITH CONTRACTED KIDNEY.

The last meeting of the Medico-Chirurgical Society has for some time been looked forward to as likely to be interesting, for a paper has long been announced by Sir William Gull and Dr. Sutton on "Chronic Bright's Disease with Contracted Kidney." There is no denying the importance of the subject, for in men who have reached and passed middle life chronic Bright's disease is one of the chief means of bringing existence to an end either directly or indirectly. Neither is it, we think, to be denied that, as Sir William Gull strenuously maintains, there are frequently in snch men premonitory symptoms—imperfect digestion, headache, distress about the region of the heart, and the like—before there is any sign of albuminuria. Hence these anthors maintain that the disease is a general one; that it affects the system at large first of all, and may attack various organs—the eyes, the brain, the heart, etc.—before the kidneys are affected. Moreover, they fix upon one particular lesion as characteristic of the disease. They say the vessels are invariably hypertrophied, but not, as Dr. George Johnson says, in their muscular coat; rather, they say that is altered for the worse, but they say the hypertrophy takes place in the intima and adventitia—the inner and the onter coats of the vessels—and spreads thence to the interlobular and intervascular substances. This new material they describe as being mainly structureless, or, as they phrase it, hyaline; but without the vessels it frequently assumes a fibroid character. The thickening is mainly confined to the minnte arteries, and is found in all parts of the body, especially in the pia mater, where it may exist without any alteration in the kidneys.

These views were snpported by a very large number of drawings, but no preparations, the exhibition of these being reserved for the Society's *conversazione* on the evening of June 7.

Most unfortunately the discussion took one groove, and stuck in it for the most part, so that the very many important questions connected with chronic Bright's disease were eclipsed by a matter of detail. Of course, statements such as those advanced by Sir W. Gull and Dr. Sutton would be sure to draw a reply from Dr. George Johnson, though his rightful place as leader in the debate was usurped by Dr. Broadbent, who came elaborately prepared to support the view of muscular hypertrophy as the cause of the increase in the thickness of the vessels' walls. The question was not, therefore, discussed on its broad merits, but was rather an affair of outposts, muscular hypertrophy being contended for on one side, hyaline fibroid thickening on the other. It is a pity a great and most important subject should be thus handled; for if we are to be practical we must devote our attention to something very different from such, comparatively speaking, petty details.

The authors of the paper certainly laid themselves open to the criticism that they proposed to deal with the whole subject of chronic Bright's disease with contracted kidney, whereas in reality they only dealt with one variety of it; for if they meant their description to apply to *all* forms of contracted kidney, the description they give of the origin of the contracting material was inaccurate. They themselves described unwittingly histological conditions very various in their character, and to be found in very various stages of the disease; for assuredly the structure of a contracting kidney is not the same in all stages.

We in this country take as our type of contracting kidney what has also been called the gouty kidney, though it may have nothing to do with gout. The contraction in it is due to proliferation of the intertubular connective tissue, so that at one time the tissue seems filled with elements similar to leucocytes, these subsequently giving way to connective tissue of the ordinary type, with its ordinary tendency to contraction and its results.

But abroad an illustrious school of clinical observers have very different views. Of these the latest exponent is Rosenstein—no mean authority on the subject. They divide the nephritis, which ends in contracted kidney, into three stages—the stage of hyperæmia, the stage of exudation, and the stage of atrophy.

In the earliest of these stages the kidney is about normal in size, dark red in colour, and rich in blood. The tubular epithelium is somewhat enlarged, as are the Malpighian bodies. The vessels are slightly thickened, and show many nuclei with acetic acid.

In the next stage the epithelium swells more and more, so as to occlude the tubules, and press upon and obstruct the intertubular vessels. The bulk of the kidney is thus increased. The walls of the vessels are thickened, and the intertubular connective tissue proliferates, corpuscles and fibres appearing abundantly. On this follows atrophy. The epithelial cells in the tubules break down, and are carried away; the canals collapse; and so atrophy is produced. This, it is distinctly stated, may occur quite independently of any change in interstitial tissue; but as a rule both the tubular and intertubular structures take part in the process. Such, briefly, is the description given by certain authors of the mode in which the contracted kidney originates. And no doubt some forms of contracted kidney do so; but in a certain number, especially as seen in this country, the interstitial change seems to precede the epithelial one. All contracted kidneys do not pass through the same stages; and we are by no means prepared to say that some do not originate in the fashion described by Sir W. Gull and Dr. Sutton. What we do say is this: All most certainly do not so originate.

But it is to the clinical phenomena of the disease characterised by a contracted kidney that attention is most deservedly due; and as the pathological condition is only of interest to us as giving rise to these symptoms, it was unfortunate they were not kept more steadily in view in discussing the subject.

The kidney has a double function to perform—the one, however, subsidiary to the other. These are the elimination of nitrogenous refuse and the evolution of water, the former, however, being more important than the latter. If urea, let us say (though that is certainly not everything), is retained in the system, we have uræmia, as it is called; if water is retained, we have dropsy. Ordinarily the two things go together, but it is just in chronic Bright's disease with contracted kidney that they least frequently do so. It is true that there is another factor in the disease—what is commonly looked upon as the chief one—viz., albuminuria. The loss of albumen may give rise to great bodily weakness, just as in prolonged suppuration; and albuminuria is more dangerous than prolonged suppuration on account of its other accompaniments; but as far as mere bodily loss is concerned the two may be compared.

But now, if we inquire into the characteristics of urine in chronic Bright's disease with contracted kidney, we find it very abundant, of low specific gravity, and containing little albumen. It is very abundant, for it frequently exceeds 100 oz. daily; and of low specific gravity—1006 or less—this being mainly due to the absence of urea. With such a flow of urine dropsy is not to be greatly dreaded; it may lightly come and go, but it is not a threatening danger promising a speedy end to life. The albumen is in small quantity—its loss is not to be greatly dreaded, and yet the condition, as a whole, is fraught with danger, and very frequently—we might almost say invariably—ends in death. What is the reason of this? The reason is, though much urine is passed it contains little urinary matter—even the sum total is far too small—and so the patient lives in constant risk of uræmia.

We nowadays commonly accept gout as being the product of imperfect metamorphosis of nitrogenous matters and their retention in the system, and we well know that gout is accompanied in many instances by typical examples of contracted kidney, which have not run through the stages mentioned by Traube and Rosenstein. So, too, we do not think it necessary that a man should have a well-marked gouty paroxysm to make it plain to us that he is suffering from the effects of the gouty poison, be that what it may. It is manifested to us in a thousand other ways—disturbed digestion, cough, general pains, perverted secretions, and such-like.

If, now, we reflect on the conditions of contracted kidney apart from gout, need we be surprised to find that there are constitutional signs of the contracted kidney before it manifests itself by albuminuria? Albuminuria is never a marked feature in the disease; need we be surprised that it does not show itself as early as some of the other symptoms? Retention of urinary matters constitutes the most important feature of the disease, and that, as far as the urine is concerned, which most frequently causes death. Need we wonder that some signs of this retention manifest themselves before the albuminuria?

Chronic Bright's disease with contracted kidneys is essentially a chronic disease; it must have lasted a long time for the kidney to become small. Moreover, to enable the individual to live, a certain amount of nitrogenous refuse must be eliminated; and as, apparently, the conditions imply the necessity of eliminating along with it a large amount of water, that compensatory action which always arises in a self-adjusting machine like our body appears under such conditions, we have the hydraulic apparatus of the body adapted for exerting increased pressure on the kidney, which of course means increased secretion of fluid. The passage of fluid through the kidneys is obstructed, and so it is, on both Dr. George Johnson's and Sir William Gull's theories, in the arterioles of the body; as a consequence, the left ventricle is greatly hypertrophied, its power is increased, and the tension of the blood within the arteries is increased also. In this way an imperfect balance between the formation of urea and its elimination is kept up. But

the balance tends to incline to the side of retention, and it may suddenly, from various causes, incline to that side somewhat more. From the slighter indications of blood-poisoning we may pass to the more severe and fatal, convulsions in the result. But this hypertrophied heart is not the product of any irritant: if so, the hypertrophy would be symmetrical, and it would not take the form of muscular fibre, but of imperfect connective tissue.

We look upon Sir W. Gull and Dr. Sutton's paper as one of exceeding great value, all the more that it directs early attention to the essential phenomenon of the disease which is not albuminuria; but we do regret that the discussion on it should in great measure have degenerated into a squabble between supporters of local theories of vascular hypertrophy, instead of dealing with the great broad features of one of the most important diseases we have to deal with.

DR. GAIRDNER ON PREVENTIVE *VERSUS* CURATIVE MEDICINE.

The old proverb "Prevention is better than cure" does not lose its significance when applied to the Medical art. It really seems contrary to common sense that large sums should be annually spent in treating diseases which are a result, whilst nothing, or almost nothing, is done to get rid of the filth and overcrowding which are the main causes. Let us take, by way of example, the Bolton town and district as described by Dr. Ballard. Children are swept off by scarlet fever and diarrhœa. What is the common course suggested? Establish Dispensaries, give drugs, and pay the parish Surgeons liberally to attend the sick. So say we; but along with this, we say, pay the Surgeons liberally for reporting their fever and diarrhœa cases, and for reporting on the nuisances which give rise to them. Not one drop of physic nor one farthing of Poor-law relief ought to go into courts and alleys where the air is poisoned by privies. To give relief and medicine, and leave the nuisance, is a waste in itself, and a robbery of the ratepayers.

That the curative Medical Officers—in other words the Poor-law Medical Officers—must combine preventive with their curative functions, is a thing which the common sense of the public must demand, and which these gentlemen see will give them claims to higher remuneration and public credit. To notice whether the poor dwellings which they enter are crowded or unventilated, or dirty, or poisoned with the stench of middens, and the ground around unswept and unpaved, will involve no great mental exhaustion, and after all it is on the petty details of daily life like these that health mainly depends. There are other functions, such as chemical analysis, statistical reports, manufacturing nuisances, which will of necessity require the occasional aid of an expert; and there are plenty of functions which will require the men who undertake them to give their whole time to them, without the embarrassment of private practice.

But for all this it will be a great calamity if the separation of curative from preventive Medicine be carried too far, and if the rule be established that Medical Officers of Health universally must be out of practice. On this point we take leave to quote from a letter from Professor Gairdner which was read before the Social Science Association at a late meeting:—

"As a Health Officer of a certain amount of experience, who has also held other offices and Professional positions, I should like to submit some—to my mind, very cogent—arguments against what I suppose to be the drift of much that has been said and written lately on this subject. It seems to me that whatever may be the occasional disadvantages of the combination of sanitary duties with private practice, or with other Medical offices, they are as nothing compared with the evil of splitting up, deliberately and by a preconcerted plan, the Medical Profession and the art of healing into *two separate halves*—a preventive and a curative portion—which would be the inevitable result of a logical adherence to the formula of 'separation' of duties. The Medical Profession generally *requires* sanitary knowledge—*i.e.*, knowledge of the causes and prevention of disease—to complete the cycle of its means towards cure of disease; and the sanitary officer *requires* equally, in my opinion, to be kept in close relations of acquaintance with the facts and generalisations of Medical practice, otherwise he is sure to become a man of red tape and officialism—a *doctrinaire*, in short. . . . . It has been to me a great source of strength all along, and also a source of intellectual satisfaction, to think that I was not a mere official person; and on the other hand one, not the least powerful, among the reasons that induced me to accept a sanitary office, was the belief that I could bring the teachings of preventive science to bear on the actual practice, and still more on the teaching, of Medicine as a healing art."

These are weighty words, and deserve full consideration. That large numbers of Medical men should be divorced from practice and from the necessity of keeping alive their pathological knowledge, and therefore thoroughly official and dependent upon Government, is a condition of things of which we have as yet no experience. It may lead to a stereotyped Chinese system, or may not; but we hold it better that Medical men, as a rule, should keep fast the tie that connects them with pathology and preserves the independence of practice.

DR. BALLARD AT BOLTON.

We have before us a report of the results of Dr. Ballard's official visitation of the town and neighbourhood of Bolton, in Lancashire, which presents some remarkable features. The visitation was made in consequence of the high death-rate in general, but especially among infants. These preliminary facts are verified by some very striking statistical returns, drawn up for the purpose by the Registrar-General. These returns show that illegitimate births are above the average in Bolton, that the general mortality per 1000 of the Boltonians between 1861-70 was 25·8, and of infants 20 per 1000 living—averages far too high, although lower than they were in the ten years preceding; moreover, that the death-rate of babies in Bolton town was as nearly as possible double what it was in the surrounding villages within the same registration district. Well, figures are not amusing, and we must refer the statistician to Dr. Ballard's report; but we may give some details of the most appalling picture which he draws of dirt, drink, indecency, waste, disease, and degeneration in one of the centres of England's manufacturing industry.

The population of Bolton and its surrounding villages—both male and female—is engaged in cotton-mills, in the iron manufacture, or coal mining. These occupations unavoidably involve a great disposition to phthisis. Intemperance is very prevalent. Of Bolton itself many parts are as crowded with houses as they possibly can be. Many houses are built back to back and in courts, so as to render ventilation difficult. Paving and scavenging are neglected. The sewers are said to be ample, but there is no provision against the entry of sewer gas into the houses. Fæcal matters are mixed with the ashes in middens, which are unspeakably and abominably neglected. The water supply is good and sufficient. The women and children are largely employed in the factories. The younger women are unchaste, and the old ones drunken. The children are stunted and degenerate, owing to the bad health and intemperance of the parents, and bad feeding. The houses are unventilated and indecently overcrowded. Diarrhœa and scarlatina are very fatal. The infant mortality is very high, and there is no certainty—such as may be afforded by a Medical certificate—that some are not due to neglect or criminal carelessness. Amongst the causes of infant mortality may be reckoned the above-named crowded state of dwellings, the impurity of the air within and without, and the imperfect light, due to the overhanging canopy of smoke. The mothers are ignorant how to bring children up, and follow the vicious customs which they witnessed during their own childhood. But above all these Dr. Ballard places the neglect of their homes and children by the women who work at the factories.

"In some cases women have been known to return as early as a fortnight after their infant has been born, and very commonly they return to their factory labour within the month. If the woman should chance to have a relative or female friend at home, or a girl sufficiently old to carry the baby, with whom she can leave it, this is the plan usually adopted; but if not, when she leaves for the mill at half-past five o'clock in the morning, she takes the baby out of a warm bed and carries it to some person (generally an elderly female), with whom she leaves it for the day. In preference she will carry it to some one residing near the factory at which she works, and this may be half a mile or a mile from her house. The season of the year makes no difference. If the distance be not too great, the mother will return at breakfast- or dinner-time, or both, to suckle her infant, otherwise she will not see it again until she leaves work in the evening. In the meantime the infant must be fed. Very young babies are fed usually with milk (such as it is!) out of a bottle. Some of these bottles which I saw in use were uncleansed, sour, and encrusted with curdled milk; and the Medical men informed me that this quite coincides with their own repeated observations. In other cases the youngest infants are fed, as those a few months old are, with bread sopped in warm water in a cup, which is left for hours upon the hob to keep warm and become sour. When about to be used, the bread is broken down with the spoon, and a little milk is added. I saw one cup of sopped bread thus prepared for use. It was said to have been boiled, but it contained tough pieces which boiling had not even softened. A halfpenny-worth or a penny-worth of milk (quarter of a pint to a pint, according to quality) per diem is considered a liberal allowance. The mothers pay, I understand, from 2s. 6d. to 3s. 6d. per week to the persons who take charge of their babies; this to include the food. These persons having their own household business to attend to, and moreover a certain and considerable amount of neighbourly visiting and gossiping to perform, commonly depute some little girl to hold the baby in their absence; and such children may be seen any day and at any hour, and almost anywhere in the town, sitting on the doorstep of the house, exposing the infant to the cooling influence of the draught between the door and the fire. It is no matter for surprise that this system of management results in all the evils of mal-nutrition, in attacks of diarrhœa in the summer and of pulmonary inflammation in the winter, and very often in the death of the infants. One of the district registrars informed me that he had often occasion to reprove mothers coming to him for the necessary certificate to present to the burial clubs in which their infants had been entered, on account of the jaunty air with which they made the application. In the course of my experience as a Medical Officer of Health (continues Dr. Ballard), I have seen a great deal of the families of the poor in London, but I can safely say that during the few days I was engaged in visiting the habitations of the operatives in Bolton, I saw a larger number of miserably emaciated infants undergoing the process of gradual starvation upon the system there in vogue than I had ever seen before in as many months.

"In a dirty unventilated house in Glazebrook-lane there was a very emaciated infant in the arms of a woman far advanced in pregnancy, whose husband was in prison, and who, for a time, was residing with her mother. The infant, I found on inquiry, was the illegitimate child of a 'factory lass,' and was nearly 9 months old, although, from its size, it did not appear more than 5 months old. It was being attended by a Doctor, who was giving it medicine, as it had been suffering from diarrhœa. The woman had had the care of this baby ever since it was born, the mother bringing it at six o'clock in the morning and taking it away at six in the evening. She paid 3s. 6d. per week to the old woman who kept the house. She said she gave it 'milk, and arrowroot, and such-like,' and showed me some sopped bread with plenty of lumps in it, which she said had been boiled. 'Yes, she gave it milk—a penny-worth a day.' I saw the milk; it was very poor indeed; and, although it had been standing for five hours, presented scarcely a trace of cream upon the top."

It will be learned with something like pleasure that the sufferings of these poor little creatures are abridged by the administration of "cordials," "infant preservatives," and other narcotics.

Dr. Ballard gives the Bolton authorities due credit for the efforts they have made to improve their town; but he shows how utterly inadequate these efforts have yet been, and how little they comprehend the powers and duties thrown upon them by the Sanitary Act, 1866. But he is not satisfied with sensational denunciations—he gives them the most precise recommendations as to the steps they should pursue; and we hope that it will be his privilege in a future report to testify to the execution of his behests. A strong but courteous central authority is evidently needed to instruct these local authorities in matters so new to them as the keeping their population in health.

THE WEEK.

TOPICS OF THE DAY.

THE efforts that are being made by the English and Irish Associations of Poor-law Medical Officers to obtain for Irish Dispensary Medical Officers and Registrars of Births and Deaths the benefits of the Union Officers' (Ireland) Superannuation Amendment Bill now before Parliament, deserve to be seconded by the whole political influence of the Medical Profession throughout the three kingdoms. Of all the officers connected with poor relief in Ireland the Medical Officers are those who—owing to their status and education, the dangers they undergo in the performance of their duties, and their scanty remuneration—most deserve and require a liberal superannuation in old age. Mr. Gladstone's Government is not in a position to turn a deaf ear to the representations of so powerful a body as the Profession of Medicine, and we hope that the influence of Medical Practitioners through their representatives in the House of Commons will be used to prevent the exclusion of Irish Dispensary Medical Officers and Registrars of Births and Deaths from the advantages to be secured by the Bill.

From what Mr. Lowe said on the occasion of the admission to degrees at the University of London, it seems pretty certain that the Government will offer no opposition to a measure which shall enable the University of London tentatively to co-operate in a Conjoint Board of Examinations. We hear also that they will support the Apothecaries' Society in obtaining powers to enter into the same league. The Bill of the latter Society for the purpose is, we hear, drafted, and has received the approval of the Privy Council. We may therefore renew our hope that a perfect Conjoint Board for England may yet be constructed. But the prospect in Scotland and Ireland is by no means so clear. The feeling of the Profession in the northern kingdom is not warmly in favour of a uniform admission to the Profession; nay, as is well known, it is in many influential quarters decidedly opposed to it. Of course, before the final step is taken, it is well that the Profession should look at the matter on all sides. In favour of Conjoint Boards there are the following very cogent arguments:—First, that it is only by a uniform examination that the public can be protected from the competition downwards of hungry Examining and Licensing Bodies. Secondly, that it is desirable that the minimum of knowledge possessed by every Medical Practitioner should be a fixed, and not a variable quantity. Thirdly, that the Profession will be a more united and more compact body when its members shall all be admitted by the same portal into its ranks. These arguments are, to our mind, of great weight, and fully justify the attempt which is now being made. But, on the other side, there are arguments which at least require examination. The first of these is, that if the Conjoint Board fixes its standard high, it will simply play into the hands of practising druggists and quacks of all kinds. If, on the other hand, it fixes low, it will, instead of raising the Profession, simply produce a uniform dead level of inferior qualifications. As it is, in consequence of some of the leading Examining Boards demanding a high standard of qualification, the numbers entering the Medical Profession are said to be diminishing, and a large part of town practice is falling into the hands of the pharmaceutical chemist. On the contrary, if all competition between the Examining Bodies upwards as well as downwards

be abolished, we shall have the rank and file of the Profession certainly reduced to a level below that to which the Act of 1815, and the exertions of the Medical Council, have at present raised them. The financial question has also to be considered. The Conjoint Board cannot work cheaply. The majority of Medical Practitioners must get their living by attending the majority of the population, and these constitute the lower middle and poor classes. These persons cannot pay large fees, they cannot pay for both Medicine and attendance, and therefore the incomes of their Medical advisers will never average more than the earnings of an ordinary clerk after a fair period of service in a City house. It is useless to suppose that fathers who have sons to place out in life will be willing to spend a very large sum of money, and to subject their sons to a long, expensive career of education and a difficult examination, to enable them to earn an income which would not satisfy an ordinary tradesman. The supply of Medical men for Poor-law appointments and for poor districts will fall short, and the result is not difficult to foresee. The State will step in, and we shall have an examination of an inferior and cheaper kind to meet the want thus created. We do not say that these undesirable conditions may not be avoided by forethought and consideration on the part of the Licensing Bodies who combine; but they are real dangers, nevertheless, and they must be looked fairly in the face, and be provided for before we destroy the existing state of things.

At the annual meeting of the Royal Geographical Society on Monday, the President, Sir H. C. Rawlinson, gave some good reasons for his belief in the safety of Dr. Livingstone. He stated that the Mr. Stanley whom the telegrams reported to have been with Livingstone is an American gentleman sent out by the *New York Herald* entirely for journalistic purposes, with a *carte blanche* as to expense, his instructions being to proceed into Central Africa and "interview" Livingstone—an example of newspaper enterprise, we should suppose, unrivalled in the history of the world. There appears, however, to be a report that Livingstone, although alive, is in some way crippled. Mr. Stanley saw two natives, each of whom asserted that Livingstone had been badly injured in an encounter with a wild buffalo.

Letters from Calcutta report that the dengue fever is still raging in the city and neighbourhood. The *Times* correspondent, who dates on May 3, asserts that there is scarcely a house into which the fever has not entered, and that it usually goes through the entire inmates.

SHALL INFECTIOUS DISEASES BE TAKEN INTO COTTAGE HOSPITALS?

The fourth report of the Committee of Management of the Petworth Cottage Hospital, which we have just received, although necessarily brief, suggests to us one or two points of importance, which we have long expected would force themselves on the notice of the managing bodies of these Hospitals. We find that the number of patients has greatly fallen off, and as the receipts for the year were £126 2s. 7d., the patients themselves, or those who send them, paying considerably more than one-fourth of the whole of the current expenses, the Hospital has a balance for the year of £39 11s. 7d., which, added to the sum in hand at the commencement of the year, makes a total balance of £121 17s. 5d. These facts show that although the Committee possesses a flourishing exchequer, it is nevertheless not doing all the good in its power with the means at its disposal. The cause of the paucity of patients, and the consequent large balance, is due to the admission of infectious diseases into the building. Now, we are fully alive to the importance—we might say necessity—of every town having some commodious refuge for persons labouring under infectious complaints who cannot safely or conveniently be treated in their own homes; but it does not therefore follow that a cottage Hospital should be used for this purpose. If it is so appropriated, then let the local public be made fully aware of its use, and let the building have some more distinctive title, such as the "Cottage Fever Hospital." On no account should patients suffering from non-infectious ailments be treated under the same roof with small-pox, scarlatina, and typhus cases, nor ought the former when once admitted to run the risk of having to be removed shortly after admission because a servant of an annual subscriber is suspected to be suffering from small-pox. Yet such a *contretemps* we remember hearing of; and the exposure to such a risk, as well as the natural objection which people have of going into a building for a long time after the actual presence in it of infection, are highly discouraging to those who would otherwise be only too glad to take advantage of the benefits of such institutions. It would materially widen the field of usefulness of a cottage Hospital, and thereby conduce to the good of the town and neighbourhood in which it stands, if no infectious cases were ever admitted. The Committee of the Petworth Hospital have by their experience been taught to take this view too, for they raise the question—"How far it is expedient to continue to use the cottage Hospital for infectious cases . . or whether the results of the past year can be looked upon as satisfactory." To this latter part of their question we answer emphatically—No! It may be gratifying to the treasurer to have accumulated in four years a balance of over £120, but the best use he could make of it would be to expend it in providing fitting accommodation, *detached from the cottage Hospital*, for fever and small-pox cases, and thereby to keep the Hospital itself for the more numerous class of general injuries and diseases. These Hospitals are rapidly on the increase, and only last week we chronicled the erection of two new ones. It would be wise, therefore, if in every case these questions should be answered—"Do we intend this building to be an Infirmary or Hospital for general cases, or are we going to use it as a pest-house?" If the affirmative is given to the latter, then let the building be named accordingly; if the reply be that it is for both purposes, then the undertaking will be irrational, and the result unsatisfactory. There is another point upon which we will add a word or two, and which we are surprised to find has been made so much of. It is the jealousy which exists against the cottage Hospitals by those connected with some provincial Hospitals and Infirmaries. It is frequently supposed that the former will injure the latter by depriving them of many of their best cases. In one case we know of the feeling has been carried very high, but we are convinced this is quite unreasonable. Having seen much of the working of these cottage Hospitals, and of the kind of cases treated in them, we see no reason to suppose that the practice of the large provincial and metropolitan Hospitals will be altered or diminished by them. Severe cases of compound fractures, scalds and burns, rheumatic fever, and pneumonia are not the cases which are sent twenty or thirty miles to a large Hospital, but are precisely the ones which are benefited and received into cottage Hospitals. The cases of this sort which reach the larger Hospitals are those which happen in the neighbourhood of these larger institutions; and as these neighbourhoods are generally very large, the presence of cottage Hospitals in the outlying towns will have no effect upon the practice or the usefulness of county Hospitals.

HOSPITALS FOR EPIDEMIC DISEASES.

It is time something definite was done respecting the general establishment of Hospitals for epidemic diseases. As a rule, we believe the objections which have been hitherto raised have been chiefly against the localities of such Hospitals, rather than against the principle of their establishment. The matter, however, would seem to be debateable, for at a meeting of the Aberdeen, Banff, and Kincardine Branch of the British Medical Association last week, at which seventeen Medical Practitioners were present, the following resolution was unanimously agreed

to: —"That the Aberdeen, Banff, and Kincardine Branch of the British Medical Association, while condemning the present proposed site of the Epidemic Hospital at Mounthooly, would be willing to appoint a committee to confer with the local authority on the subject of epidemic Hospitals generally, and that this resolution be sent to the local authority."

ST. THOMAS'S BIENNIAL FESTIVAL.

As had been anticipated, a large number of old students of St. Thomas's Hospital assembled at the Cannon-street Hotel on Tuesday last, being the day fixed for the first biennial dinner since the opening of the new Hospital. The grand hall was well filled. Dr. Risdon Bennett was in the chair; he was supported on the right by Sir Francis Hicks, and on the left by Mr. Le Gros Clark. The toasts were limited to six, and the speakers were earnestly entreated to observe brevity. With one or two exceptions the speeches were brief and to the point. Professor Stromeyer replied for the visitors. At such a gathering of past *alumni* of St. Thomas's, it could hardly be expected but that some allusion should be made to the subject which excited so much surprise and ill-feeling about this time last year. We allude to the filling up of the six vacancies on the staff by the appointment of six outsiders. It seems a pity, however, that this unpleasant subject should have been revived, and that some explanation seemed necessary at a social gathering of gentlemen where the theme of the speeches was the glory of St. Thomas's. The Dean—perhaps, in his official capacity, avoiding the main issue—expressed his conviction that in constructing the staff the governing body had been solely actuated by a desire to obtain the best men. No one ever objected to the introduction of outsiders; but we believe the Profession generally, including the staff, were of opinion that some of the six vacancies should have been given to St. Thomas's men. A silence which might be felt pervaded the company when any allusion was made to this subject; everyone seemed anxious at such a *réunion* of old friends to pass on to a more cheerful topic. There seemed to be a general impression, however, especially when the devilled whitebait was being handed round, that there are just as good fish to be found on the Surrey side of the Thames as ever came out of it, although some have tried the small pools on the other side of the water with the expectation of catching salmon. Mr. MacCormac did not seem to appreciate the "thin silver streak" bisecting the metropolis; he thought that Father Thames might prove a troublesome neighbour. He was struck with the number of fire-engines at the New Hospital; as some of the new introductions might succeed in setting the Thames on fire, it was also necessary to take precautions lest the "great lights" should burn too brightly. The band of the Coldstreams discoursed sweet music at intervals during the evening, and the company separated shortly after ten o'clock much pleased with the evening's entertainment.

THE SMALL-POX EPIDEMIC IN THE WEST INDIES.

Our correspondent in Trinidad writes us word that the epidemic is now over in the Port of Spain and the neighbourhood, but is still severe in some of the country districts. It is getting into the sugar estates, among the coolie labourers, and will probably linger there for some months. It is also spreading in Jamaica. The other West Indian islands rigorously quarantine Trinidad, and have refused to receive bills of health for Port of Spain alone. Their sanitary authorities declare that they will not grant free *pratique* to vessels from Trinidad until small-pox has entirely disappeared from that island. It is now, and has been for the last six months, almost impossible to go from Trinidad to the other islands without first going to the United States or to Europe. Dr. Gavin Milroy had to go into quarantine at Dominica on his way home. Remarkable success in the treatment of the disease has been obtained by the use of the wet sheet and cold affusion. We hope to be able to give further particulars by next mail.

CHOLERA ON THE MARCH.

However ignorant we may be as to the origin of cholera, there are some facts connected with the disease clear and patent. That it is spread largely and widely by the caravans of the East has been proved on more than one occasion. Another instance in proof of this is recorded in a late number of the *Journal de Genève*, which states: "The caravan from this city left Mecca on February 25 with an effective of 4000 pilgrims, and arrived on March 10 at the tomb of the prophet at Medina. During the fortnight 400 persons died of cholera. There were at that moment at Medina 7000 strangers, among whom the scourge was raging with terrible severity. Before the arrival of the Damascus caravan it appeared to have abated, but it immediately broke out again with violence."

STATISTICS OF PAUPER SICKNESS.

Dr. E. Smith, Poor-law Inspector, in his statistics just published of pauper sickness, says that in "all England and Wales there were 840,388 outdoor paupers at the end of Lady-day quarter, 1870, of whom 106,323, or 12·7 per cent., were on the Medical officers' books through sickness, accident, old age, or infirmity." One of the inferences drawn by Dr. Smith is that the excessive number on the Medical officers' books in certain English counties arises from the fact of the labouring population of those districts being underfed. The proportion varied widely in different parts of the kingdom. In Cardiganshire and Pembrokeshire it was under 5 per cent., and in Berkshire it was 25 per cent. These were the extremes.

OPHTHALMIA AND ILLNESS IN THE MITCHAM SCHOOLS.

Some time since we noticed that ophthalmia was very prevalent in the schools at Mitcham. Under proper regulations, better drainage, ventilation, and attention to the diet of the children, the disease has diminished in a very remarkable manner. Last week only seven boys and eleven girls were suffering from the disease. The health of the children, too, had generally improved, and contrasts favourably with the corresponding period of last year. There were last week only thirty children in the Infirmary suffering from illness; this time last year the number was forty-nine.

POISONOUS ICES.

Now that the season for ice-eating is near at hand, it may be as well to state, as a matter of precaution, that the German Medical journals are calling attention to the circumstance that several cases of poisoning by vanilla ices have of late years occurred in Paris, Altona, Munich, Vienna, and other places.

DR. BUCHANAN ON COTTON SIZING.

We have received copies of reports from the Local Government Office, which indicate a wholesome activity in the Central Sanitary Administration. Amongst them is one by Dr. Buchanan on the "Sizing Processes used in the Cotton Manufacture at Todmorden," which is remarkable not only for the conscientious care it shows in investigating facts, but for its demonstration of the wide-spreading and little-dreamed-of consequences of remote effects. Phthisis is rampant at Todmorden, because of the Russian and American wars. And this is an abridged version of Dr. Buchanan's story:—

"Up to twenty years ago, 'sizing' of cotton consisted in the use of some fermented flour and tallow, in order to give tenacity to the warp and to lessen friction in the weaving process. The amount of such size required for this purpose was about 20 per cent. of the weight of the warps. About twenty years ago it was observed by some sizers that the brownish colour given to cotton cloths by size made from inferior kinds of flour could be reduced by the addition of a small quantity

of China clay to the size; and further, that this material so far reduced the glutinous quality of the flour that the sized warps would weave easily with a less amount of tallow in the size. . . . In 1854, at the time of the Russian war, the increased price of the usual sizing materials led to further substitution of China clay. In 1862 the American war produced the English cotton famine. Cotton then very rapidly rose in price, and the better sorts were almost unattainable. . . . Warps of shorter-fibred cotton are difficult to weave, unless the needful tenacity of the twist be given by a larger amount of size than would be wanted for better sorts. Of size, made of flour and tallow, warps from the worse kinds of cotton are stated to require even more than 20 per cent. of their weight. But the lack of cotton in 1862 introduced another practice. With the scarcity of raw material came the practice of giving a fictitious weight to cloths containing less cotton, in order to make it appear that they contained more. It became a matter of rivalry with sizers, which of them could 'put on' most foreign matter upon the cotton warps. . . . For the last three years every yard of cotton cloth made at Todmorden has been weighted with quantities of size, not required for any manufacturing purpose, but used as an adulteration. The 'size' may still consist, in the main, of flour and tallow, some sort of salt being added either for the purpose of lessening the glutinous quality of the flour, or else for the further purpose of retaining moisture, and thus of increasing weight. Epsom salts and chloride of magnesium (with sulphate and chloride of zinc, not yet in common use at Todmorden) have been the principal salts used for one or both of these purposes. . . . In weaving warps of inferior cotton, weighted with China clay and flour mixed with deliquescent salts, there is especial occasion to keep the weaving-sheds damp, as in this way the brittle compound of cotton, flour, and clay is less liable to break, the clay comes off less, and the resulting cloth is also heavier by the weight of the retained moisture. In these weaving-sheds the excess of damp in the air, desired for facility of weaving, especially for weaving the over-sized warps, is obtained from the moisture retained in the size, and (incidentally, yet probably in most part) from the persons of the workers, while there is careful avoidance of any draught that could dry the tender warp. Windows and so-called 'ventilators' are habitually kept closed. In all the sheds there was more or less dust. The stranger-visitor experienced in all the more dusty sheds, and roughly in proportion to the amount of visible dust, very great irritation in the nose, and in a less degree to the eyes and throat. To this irritating effect of the dust a frequent visitor, and still more a weaver, gets speedily accustomed. . . . All the Medical men in Todmorden agree that lung diseases are greatly prevalent there, and that the circumstances of employment in the cotton manufacture conduce to such diseases. There is a general agreement, too, that cotton-workers, with a family tendency to consumption, have that tendency developed; and that those who, without such tendency, continue to work in mills up to 40 or 50 years of age very commonly break down with lung disease. It is also agreed that they suffer much, and more than other people, from dyspepsia. A very intelligent overlooker, who accompanied me through one of the most important establishments of the town, expressed his own belief that weaving was not so healthy a branch of the cotton manufacture as before heavy sizing was in vogue, and that fewer weavers now pass middle age without getting something the matter with their lungs."

Dust, as Dr. Buchanan remarks, kills slowly, so that its victims may lead crippled lives for some years before they go to swell the lung-disease column of the Registrar-General. The investigation was made at the request of the workmen employed in the factories, and we hope will lead to a reform.

SMALL-POX JOTTINGS.

The deaths from small-pox in St. Pancras in the past month fell from eight to six.——The Medical Officer reported last week that Clerkenwell was entirely free from the disease.——Small-pox is very prevalent in Leicester. Both the temporary Hospitals are full, and upwards of 500 cases are requiring admission. The deaths average over twelve a week, and so virulent is the disease that many of those attacked succumb after a few days' illness.——Five deaths from small-pox occurred in the Poplar Union in the past fortnight, and twenty-five new cases were brought under notice. In the same period eighty-three persons were vaccinated at the public stations.——There were on the 18th ult. eleven small-pox patients under treatment in the North-street Infirmary.——Eleven deaths are reported from small-pox in the Hackney district during the past fortnight.——The deaths from small-pox in Ireland in the last quarter of 1871 alone were 441.——The last week's return of small-pox cases in the Aberdeen Small-pox Hospital shows—Total number of cases admitted since opening, 210; new cases admitted on Monday last, 3; number of patients now in Hospital, 18; total discharged recovered, 158; total dead, 34.——Fifty-four deaths from small-pox occurred in the metropolis last week.——Dr. Aldis, St. George's, Hanover-square, reported last week two cases of small-pox; both were sent to the Hospital.

FROM ABROAD.—GEH. MED.-RATH MÜLLER ON MILITARY REVACCINATION—M. DEMARQUAY ON ASPIRATION IN THE REDUCTION OF HERNIA.

We have frequently noticed in this journal the communications of Geh. Med.-Rath E. Müller, Director of the Berlin Vaccination Institution, upon glycerined vaccine lymph; and we return to the subject because we believe that the great difficulty, which during the late epidemic of small-pox was so often experienced both in this country and in France in procuring a supply of reliable lymph, would never have occurred had Dr. Müller's recommendations been attended to. His latest communication on the subject appears in the *Berlin Klin. Woch.*, for April 29, and is entitled "Military Revaccination." In this he adverts to the large scale on which revaccination had to be carried on during the late war, where so many troops had to be protected against the small-pox prevailing in the enemy's country, while vast numbers of French troops were "interned" in Germany. Before the introduction of this new plan the military Surgeons had often very great difficulty in obtaining the requisite lymph. They obtained as much as they could from the establishments, and then revaccinated from the finest revaccination pustules that presented themselves. Some danger was incurred thus of also transmitting disease, while the lymph derived from revaccination is supposed to possess less protective power.

Military Surgeons are saved all trouble now on this score by the employment of glycerined lymph. Six years have now elapsed since the discovery of its advantages, and Dr. Müller, during this period, has been untiringly endeavouring to make these known more widely. The late war, occurring amidst the prevalence of small-pox, has amply demonstrated its value; for it was found that, on the outbreak of the disease, the only provision in Germany of lymph capable of meeting the emergency existed at the Berlin Institution, and supplies had to be obtained from it for revaccination in Baden, and for revaccinating the Saxon and Würtemburg armies. Without the aid of glycerine the immense supplies for both civil and military Practitioners, at home and abroad, never could have been sent; and the army Surgeons can best judge what influence the withholding of such revaccination might have had on the course of the campaign. Still, in general, only enough lymph could be sent to set the revaccination process going, the revaccinating from arm to arm still continuing to be practised. In fact, but few military Surgeons prepare the glycerined lymph themselves, although this can be so easily done. If during the summer each were to vaccinate a few healthy children, he might lay by a stock of glycerined lymph (which keeps for months or years) that would enable him to revaccinate whole batches of recruits on the same day.

"It is, indeed," says Dr. Müller, "a most surprising fact how long a discovery, the advantages of which are so obvious, and can be put in force with so little trouble, is in making its way. Most of those who apply at the establishment ask expressly for the glycerined lymph, being convinced of its excellence and of its preferableness to pure lymph; but yet very few prepare it for themselves. Were such preparation general among vaccinators, the institution would have become

well-nigh superfluous; whereas, on the contrary, our expeditions of lymph are ever on the increase. The recent report on vaccination in Würtemburg bears witness to the utility of the glycerined lymph; yet had it been properly utilised there would not have been the want of lymph there was for the purpose of revaccinating the army."

At the meeting of the Académie de Médicine on May 21, M. Demarquay presented a man, 21 years of age, in whom he had reduced a strangulated congenital inguinal hernia by the aid of aspiration. On May 5 a tumour appeared in the left groin, accompanied by severe pains and vomiting, which persisted next day. At the end of twenty-four hours he was taken to the Paris Maison de Santé, where the taxis was employed without success. Ice was applied during the next twelve hours, when M. Demarquay saw the patient. His features had undergone great change, and fever was set up. A congenital, elongated, voluminous inguinal hernia was found to exist, and M. Demarquay paid the more attention to other measures inasmuch as he had never succeeded in curing this description of hernia by operation. He applied carefully the taxis, while the patient was put into a deep sleep, with no effect, and he determined to try the effect of removing the intestinal liquids and gases by means of aspiration. A fine trocar was passed into the centre of the tumour, and, by means of Potain's aspirator, about 120 grammes of intestinal liquid were drawn into the recipient. The tumour subsided completely, and, the trocar having been removed, some minutes were allowed to elapse without touching the tumour, in order to observe whether new liquids or gases would enter the strangulated intestine. No renewal of the tumefaction took place, and very slight pressure upwards sufficed to procure the return of the intestine into the cavity of the abdomen. The patient was kept quiet, and on low diet, fractional doses of opium being administered. No ill consequence followed. The case M. Demarquay regards as striking, and he proposes to apply this new mode of treatment—1. In all congenital hernias and to recent hernias which become strangulated at the time of their formation. 2. To old hernias which were quite reducible a few days prior to strangulation, and in large umbilical hernias that have been recently strangulated. 3. Aspiration, which has for its object facilitating the employment of the taxis, should only be employed at an early period, when one can be well-nigh certain of returning into the abdomen the intestine in an unaltered state, and capable of resuming its functions.

PARLIAMENTARY.—THE CONTAGIOUS DISEASES ACT—NAVAL MEDICAL SERVICE.

On Monday, May 27, in the House of Commons, Mr. W. Fowler gave a notice that he would, on June 11, move for leave to bring in a Bill to repeal the Contagious Diseases Acts.

In the debate on the naval estimates, on the vote for £59,926 for Medical establishments at home and abroad,

Sir J. Hay wished to ask the First Lord of the Admiralty how it was that when eleven of the crew of the *Rinaldo* were wounded in an attack upon a piratical community on the coast of Sumatra there was no Medical man on board to attend to them. It was of the first importance that when ships were ordered on such expeditions they should carry Surgeons.

Mr. Goschen explained that on the occasion in question the chief Surgeon belonging to the *Rinaldo* had been directed by the Commander-in-Chief in China to attend to the Hospital at Hong-Kong, and that at the same time the Assistant-Surgeon was laid up by illness at Singapore.

In reply to Dr. Brewer,

Mr. Shaw Lefevre said the subject of Dental Surgery as practised in the navy had not been specially brought under the notice of the Admiralty.

The vote was agreed to, as was also a vote of £18,728 for Marine Divisions.

THE Government of St. Petersburg has been informed by the Russian Embassy at Teheran that fever and cholera have entirely disappeared from Persia.

ON THE FACTS ELICITED BY

THE PRESENT EPIDEMIC OF SMALL-POX

IN REFERENCE TO THE

RISE AND PROGRESS OF THE DISEASE, ITS AVERAGE MORTALITY, ITS EPIDEMIC PERIODICITY, AND THE PROPHYLACTIC INFLUENCE OF PRIMARY AND SECONDARY VACCINATION.(a)

By HENRY LETHEBY, M.B. Lond., etc.

DR. LETHEBY alluded to the fact that the present epidemic of small-pox is one of the severest on record, there having been nothing like it since the practice of compulsory vaccination. It resembled, indeed, the state of things in the days of Jenner, when, according to Sir Gilbert Blane, the average annual mortality from the disease was about 30 per 10,000 of the population. As regards the onset and progress of the present epidemic, it would seem, from the returns of the Small-pox Hospital at Upper Holloway, that it began to show unusual severity as far back as the month of November, 1869, and that it steadily advanced month by month throughout the whole of the following year (1870)—the largest number of admissions being in the month of December, 1870. According to the Registrar-General's returns of deaths in London it appears that the first indication of the epidemic was in the first week of October, 1870, when the mortality from the disease rose from an average of about 12 in the week to 27. After that, with slight variations, it slowly and steadily increased, the number of deaths at the close of the year being over 100 a week. For the next four months it grew in proportions until it reached to 288 in the week. This was in the first week of May, 1871, and it is the largest weekly mortality for the year, for from that time it slowly declined. In the City of London the period of greatest intensity was from November, 1870, to June of last year.

The mortality from the disease has been unusually large, for it has amounted to 19 per cent. of the admissions into the Small-pox Hospital at Upper Holloway, to 18·2 per cent. in the Hospital of the Metropolitan Asylum District at Stockwell, to 19.2 per cent. in the Hospital at Hampstead, and to 19·8 per cent. in that at Homerton—the average for the whole of the cases (10,991) treated in the four Hospitals being 19·1 per cent. This is an excessively high proportion; for, according to the statistics of the Small-pox Hospital, the death-rate ordinarily ranges from 12·9 per cent. (1864) to 17 per cent. (1863)—the average for many years being only 14·3 per cent.

The force of the epidemic may also be estimated by the death-rate per 10,000 of the population. In all England during the last twenty years the average annual mortality from small-pox has been only 2 per 10,000 of the people, and in London during the last ten years it has been 2·7 per 10,000, and in the City 1·6; whereas, in 1870, during the present epidemic, it was 24·2 per 10,000 of the population of London, and 11·5 per 10,000 of the City. The City occupies an intermediate position between the eastern districts of London (where the disease has been most severe) and the western, and no doubt it represents the mean force of the epidemic.

Dr. Letheby exhibited tables of the death-rates of the disease in England, in London, and in the City, for each year since 1851, and they showed a remarkable periodicity of the disease. In the City, for example, the intervals of calm and of great severity were as nearly as possible two years. In London it is generally about three years, and in other places from four to five years—the period being no doubt determined by the density of the population, the habits of the people, and the efficiency of vaccination.

Dr. Letheby entered very fully into the subject of the prophylactic power of vaccination, and he showed that although a very large proportion of the cases had been vaccinated—amounting in the City to 73·9 per cent. of those attacked by disease, at the Small-pox Hospital to 79·3 per cent., and at the three Hospitals of the Asylum District Board to 74·8 per cent. —yet it was manifest that the operation had been either imperfectly performed, or had been weakened by the afflux of time. But even with these disadvantages the mortality among those who had been vaccinated was remarkably small in comparison with the unvaccinated; for while the general mortality was at the rate of 19·1 per cent. of all who were attacked with the disease, it was only 10·7 per cent. among the vaccinated, and as high as 45·9 per cent. among the unvaccinated. In the City

(a) Abstract of paper read before the Association of Medical Officers of Health.

of London the proportions were 7·5 per cent. among the vaccinated, and 36·8 per cent. among the unvaccinated. These numbers are not very different from the proportion which Mr. Marson has found to be the average at the Small-pox Hospital, the mortality of the unvaccinated being about five times as great as that of the vaccinated. As regards the ages at death, Dr. Letheby stated that in the City during the last thirteen years he found that of every 100 deaths from small-pox 43·1 were less than 5 years of age, 16·2 at from 5 to 15 years of age, and 40·7 at 15 and upwards. In the whole of the metropolis the proportions at different ages were—55 per cent. under 5 years of age, 15 per cent. at from 5 to 15 years of age, 22 per cent. at from 15 to 35, 7 per cent. at from 35 to 55, and only 1 per cent. above that age. In all England the proportions are a little different, 56 per cent. being under 5 years of age, 16 per cent. at from 5 to 15, 20 per cent. at from 15 to 35, 6 per cent. at from 35 to 55, and 2 per cent. above that age. It is also remarkable that the mortality is somewhat different with the two sexes—up to 15 years of age the females die in largest proportion, and after that age the males.

The conclusion from the inquiry was, that vaccination in infancy, when properly performed, was protective during the growth of the body, and that revaccination was necessary at the age of 15, or thereabout, to protect the system during the remainder of life. Abundant illustration of this was given from both English and Foreign statistics. In discussing the pathological relations of the disease, and the remarkable correlative quantivalence of zymotic maladies, Dr. Letheby referred to the various theories which have been advanced to account for them, as the influence of molecular motion, the action of specific principles, and the operation of living germs; and he concluded by saying "that although the entire phenomena of zymotic diseases, and especially the reproductive powers of them, are hardly consonant with what we know of the physical manifestations of molecular motion, yet there is much about them—as, for example, their modes of attack, their periodicity, the regularity of their progress, the order of their decline, and, above all, the quantitative or complementary relations of them—which points to a probable correlation of some kind. But whether the relation is in the quality of the contagion, or in the nature of the material upon which it acts, or in the force which governs its manifestations, is a problem for searching inquiry; for at present no man can safely dogmatise on this obscure subject by saying that these diseases are caused by matter in a peculiar state of motion, or by living germs with their faculty of reproduction, or by the so-called 'zymotic principles' of the Registrar-General. All that we can certainly say of these maladies is, that, be their origin what it may, or their correlation as close as can be, they are governed by laws which are quite within the reach of human investigation; and that although perhaps we shall never be able to banish such diseases from the community, yet we have always power to mitigate their force, to regulate their actions, and to bring them under the control of hygienic influences. This, in fact, is the practical aim of sanitary science, however much it may be disturbed by the fanciful theories of dreamy physicists or by the sensational rhapsodies of popular writers."

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

At a meeting of the Poor-law Medical Officers' Association held at the Medical Club on Tuesday, May 28, certain amendments to the Public Health Bill were read and discussed. A resolution was then proposed by Mr. Wickham Barnes, and seconded by Dr. Montague Thomas, honorary secretaries to the Association—"That this meeting thoroughly approves of, and will endeavour to support, the 13th clause of the Public Health Bill, appointing Poor-law Medical Officers Health Officers, seeing in that clause an earnest endeavour on the part of the Local Government Board to improve the status, as well as the remuneration, of the Poor-law Medical Officers." Considerable discussion followed, the opinion of the meeting being that the clause had not been properly understood by its opponents, it having been viewed by them in too narrow and suspicious a light. On the resolution being put to the meeting, it was carried. Mr. Barnes then proposed that a memorial be addressed to Mr. Stansfeld, praying that a superannuation clause be added to the Bill; but though the meeting were unanimous in the objects of the resolution, it was considered advisable to wait for another opportunity. A communication having been read by the President from Dr. Maunsell, of Dublin, relative to a Bill to amend the Act providing for superannuation allowances to officers, it was proposed by Mr. Barnes, and seconded by Dr. Vance, and carried—"That it is desirable, in the opinion of this Association, that a clause should be introduced into the Bill, so that Union Officers shall include Medical Officers of the Dispensaries of such Unions, and that the words 'superintendent registrars' shall be followed by the words 'and registrars,' so that the Dispensary Physicians of Ireland may be able to compute the fees from registration in estimating their salary for the purpose of superannuation; and this Association pledges itself to exert its Parliamentary influence in aid of the above amendment."

MORE NOTES ON WINE.

Sweet Australian Wines.—Verdeilho; Pewsey Vale Wines; Denyer's Rheingau Champagne; San Lucar Sherry.

We are reproached by an Australian friend for not doing justice to some of the Australian wine of which samples have been sent to this country. In the first place we are desired to notice the exquisite sweet wines. Now, sweet wine is a special article—it is not destined to be used with food as an *appetiser*, like Bordeaux or Ofner; nor yet after food as a *cordial*, like old dry sherry; but as a nutrient by itself, or with some light article of food in the intervals of more serious meals. Such a wine is the Lunel, the Rivas Altes, the Constantia, and, above all, the Tokay. Now, there were in the Exhibition of 1851 samples of sweet wine, of deep amber colour, fragrant without sickliness, and satisfying but not cloying. Of this wine some samples are before us from the cellars of Mr. Denman—some marvellously preserved, but some, alas! fairly decayed; all vinous strength dissipated, but a faint flavour of its former self. But what there was preserved is paralleled by some samples with which we have been favoured by Mr. P. B. Burgoyne, of *Verdeilho*, a light-coloured fragrant sweet wine, from Gilbert's vineyard at Pewsey Vale, near Adelaide. This wine is not to be had here at present, but we are requested to notice it amongst the potentialities of Australian produce. Any Physician who has a patient that requires eight meals a-day may be grateful for the opportunity of using such saccharine stimulant. But there are other Pewsey Vale wines to be had, both red and white. The "Pewsey Vale White, vintage 1864," is an example of the power of these wines, both in alcoholic strength and vinous flavour. The strength of this wine is equal to 25 per cent. of proof spirit, without evidence or suspicion of fortification; the vinous flavour intense, and the taste has qualities which approximate to those of a fine dry sherry—in saying which we pay a high compliment to dry sherry, for much of the liquid sold under that name tastes more of Glauber's salts than of wine. The "Pewsey Vale Red," also 1864, is a fine mature wine, grapy and potent, alcoholic strength 24°, fit to rank with Hermitage. The Tintara, we are glad to learn, is used in at least one Hospital, instead of the *banal* "Tarragona," or "Hospital port."

Amongst new samples of wine that have been brought under our notice we may mention the "Sparkling Rheingau Champagne," a wine said to be made from champagne grapes grown in the Rheingau. We have often spoken of the importance, to sick people of all classes, of being able to procure sparkling wine, and of the absurdity of supposing that nothing will do save the very expensive wines of Rheims and Verzenay. We therefore welcomed the Vouvray, and the sparkling wines of Ackerman Laurance of Saumur, the champagne of Mr. Patrick Auld, the Styrian Champagne, and others, as well-directed efforts to supply an acknowledged want. Now we have another string to our bow, in a wine of the champagne character imported by Mr. Denyer, of 95, Regent-street, and sold at a moderate price. It has the first characteristic—viz., that it tastes of wine: it is perhaps a trifle too sweet, but it is perfectly wholesome, and the best wish we could form for many a poor creature would be that they might get enough of it. The introduction of such good useful varieties of wine is a public benefit.

We have also received two samples of Manzanilla imported from San Lucar by the same firm. It is thoroughly dry and clean, has the peculiar bitterish taste which is a well-known characteristic of the Manzanilla, moderate alcoholic strength,

nothing hot and fiery, and a softness which will greatly improve by keeping. The manner in which the samples are packed indicates great care and ingenuity.

WHITBREAD'S BOTTLED BEER.

The consumption of bottled beer has of late years very greatly increased; and if restrictions on the hours of sale in public houses are enforced, as seems likely to be the case, the quantity so consumed is very likely to increase still more. In Scotland up to a few years ago there was little or no consumption of beer, but the taste for it has spread as the use of whisky has diminished, but from various causes the consumption has taken the shape of bottled beer instead of draught beer, so that the bottling trade is now one of very great importance in that country.

Very frequently it is the duty of a Medical man to prescribe stimulants. Very frequently, too, the patients so prescribed for are not in a position to obtain that best of all stimulants, good old and well-matured wine. The use of spirits among the class of patients who are likely to derive most advantage from properly selected stimulants—viz., women—is certainly not a thing to be encouraged, and so we are compelled to fall back on homely beer. And there can be no doubt but that in appropriate cases beer is quite as good a stimulant as wine; but then it must be good—and here we are at the mercy of the publican. There are a very large number of people—in point of fact, the majority of those who drink beer—who never think of going to the brewer himself; their wine, spirit, and beer merchant is the publican. Now, it is rather a hard thing to say, but we fear if the quality of the beer were tried all round the public-houses in London we should find it bad in a majority.

It is easy to say to such people, "Go direct to the brewer"; but the best quality of ale and stout—let us say, for the sake of example, Allsopp's and Reid's (we do not say they are better than all others)—can only be obtained in quantities of eighteen gallons, and that means a very considerable investment of money to poor people. It is quite true good beer can be got on different terms; but we are expressly speaking of the best qualities brewed. For many people, therefore, it would be a matter of great importance to be able to procure beer of the best quality at a cheap price in such a form that it can be used at any time they choose without getting in eighteen gallons at a time or sending to the public-house for it. Bottled beer offers the necessary facility; but hitherto the bottling trade has been worked in such a way as to repel rather than to attract customers. Many and grievous have been the complaints against bottled beer, and, we fear, with only too just a foundation; for this is the rule in dealing with bottled beer—you must rely on the reputation, not of the brewer, but of the bottler. The great brewers, like Bass and Allsopp, send out good beer, and they issue along with each barrel a certain number of labels; but the bottler need not put a drop of these beers in his labelled bottles—he may put in trash of the vilest description, and label it as he will. And this is done. We could mention bottling firms whose beer only the most parching thirst could induce us to touch, whilst we could mention others from whom you never by any chance get a bottle of bad beer.

At one time there was a kind of safety for us, because bottlers could only put in bottles a beer that had body enough to make it keep for a time. If it turned off, it was of course useless. But the indefatigable chemist, who plays such an important part in the concoction of modern wines and beers, made a discovery—he took advantage of the property of sulphites to arrest fermentation and absorb oxygen. Sulphite of soda was tried, but the taste would not do—it was too nauseous; the lime salt succeeded better, and now you may bottle anything you like, only you must not too particularly inquire into the character of the sediment at the bottom, nor the origin of the smell—not exactly that of hops or malt—which comes from the bottle when the cork is drawn.

To get a good sound beer in bottle we want two things—*absolute cleanliness* and good material—to begin with. We lay especial stress on the former, for it is that, simple though it be, which is too often neglected. And if you put ever so good beer in dirty bottles, the result will be the reverse of satisfactory.

We have been induced to make these observations *àpropos* of certain specimens of bottled beer submitted to us. The beer is Whitbread's and it is bottled by Mr. Robert Baker, of 277, Gray's-inn-road, W.C. We have since visited the bottling premises, and can say this, that there cleanliness rule and reign. And the product is good; the beer fairly tested is excellent. Six kinds of beer altogether are bottled. Two of these—the extra stout and old ale—are very fine; but it is of the former we mainly desire to speak. It has often been our desire to prescribe stout for a patient who could digest it, and we had only Guinness's to fall back upon. Now, without derogating for a moment from the admirable qualities of the Dublin product, we can obtain here in London a beer—if you know where to go for it—which, in the estimation of many, is far superior. Such a beer we have frequently desired to obtain in bottle, but never could until we came across this, which is Whitbread's best, duly matured in wood and bottled with all proper precautions when fully ripe. This beer we can fully commend to our readers, though even the inferior quality—ordinary stout—is very much better than that usually obtainable. The price, too, is most moderate: the ordinary stout is sold retail at the rate of threepence per pint; the extra stout costs a halfpenny more. It is, moreover, to be noted that the bottles are all imperial pints, no "reputed" measures being used. We should say, "Give it a trial."

REVIEWS.

Disease Germs: their Nature and Origin. By Lionel S. Beale, M.B., F.R.S. Second edition. Twenty-eight plates, containing many coloured illustrations. London: J. and A. Churchill. 1872. Pp. 472.

This book contains a good deal more than the title would lead us to expect, and deals with a good many disputed points. There will be found in it much information as to Dr. Charlton Bastian's latest researches on the spontaneous development or generation of organic beings, in which Dr. Beale takes the negative side very strongly. Anyone who is acquainted with his works will also be prepared to meet with an exposition of his views as to the nature of life, which he maintains not to be a mere result of physical forces—a "kind of motion"—but of some superior force, by which the ordinary physical forces are controlled. Beale consequently believes that the organisms which are developed (to use the common phrase) "spontaneously" in dead and decaying animal and vegetable matter are not of new origin, but are the offspring of germs conveyed by the atmosphere.

This leads us to some reflections on the atmosphere, and on its power of upholding and conveying bodies in a state of minute division. That the air in certain conditions is loaded with such particles is evident from the inspection of a sunbeam pouring into any darkened chamber. The nature of this atmospheric dust has often been the subject of examination—for instance, years ago by Raspail, by Mr. Alfred Smee, Dr. R. D. Thomson, Mr. Samuelson, and many others; and it was thoroughly well-known that starch granules, particles of hair and wool, filaments of cotton and silk, fragments of insects—as, for instance, the scales of the common clothes moth—pollen granules, vegetable germs, and other organic substances, are mixed with the finely powdered clay or silica, ashes, soot, oxide of iron, and the like, that constitute ordinary dust. The dust of a drawing-room after a carpet dance, and that of a pauper school lavatory after the children's heads have been combed, of Piccadilly during March, and of a hayfield in July, must each contain its peculiar constituents, of which a considerable portion has been long known to be organic. Dr. Buchanan, for example, finds *fat* amongst the dust of the Rochdale cotton factories, along with the clay and flour that are used with it to dress the cotton-cloth.

Here Dr. Beale records the somewhat retrograde step made by our great physicist, Dr. Tyndall, when he brought the subject of dust in a somewhat sensational manner before the Royal Institution two years ago. Beale, like an accomplished pugilist, gets Tyndall's "nob into chancery," if we may borrow the language of the "ring," and administers punishment with great gusto. He pokes fun at Tyndall for bringing the electric light, and all the other tremendous resources of physical science at the Royal Institution, to show (1st) that dust doth float in the air, which the common world would not deny, seeing that they had seen it daily in the sunbeams; (2nd) that dusty air, when left at rest, will clear by subsidence—a fact of great interest, inasmuch as Beale sarcastically observes it showeth that ponderable matter really hath weight and is subject to the attraction of gravitation; (3rd) that dust is really com-

bustible—a conclusion which must have been highly comforting to the physiological and pathological teachers, who had been long instructing their pupils how not to mistake for morbid products the particles of fir-wood, chips of cedar-wood pencils, starch, dust, and cotton occasionally found in urine, into which they might be floated by the air. To teach teachers who knew that such things are found in dust that they will burn—nay, that they will smoke if burnt—is, *certes*, giving them something to think about. It was felt at the time that Dr. Tyndall had taken a wrong step, and we may enjoy, as lookers-on, the punishment which Beale lays on so vigorously; but we need not forget Tyndall's practical recommendation of a cotton-wool respirator for firemen and others, who not only breathe dust, but red-hot dust.

Dust, then, is partly organic in its nature, and doubtless contains abundance of germs of lowly organised vegetable life; but Beale does not believe that vegetable organisms, fungi and the like, are a *cause* of disease. That they largely flourish in diseased, decaying, and defunct organisms is not to be doubted; but this only shows that their germs are present everywhere and at all times, interpenetrating all our tissues, yet only capable of germinating and growing when the superior powers of the inhabited organism are quenched by disease or death.

As an instance of the amount of interference which Beale believes vegetable germs to be capable of effecting, we may quote his observations on the bacteria:—"The higher life is, as I think, everywhere interpenetrated by the lowest life. Probably there is not a tissue in which these germs do not exist, nor is the blood of man free from them. . . . Millions are always present on the dorsum of the tongue and in the alimentary canal, but remain in a germ or embryonic state." The normal secretions of the alimentary canal prevent their growth, and the nourishment comes to us instead of being appropriated by them. But what happens if some of these fluids be suppressed or changed in quality? The bacteria grow and multiply, and the nourishment is no longer absorbed into our bodies. If a child be poorly it ceases to digest its milk; this becomes the prey of hordes of bacteria. Fresh milk administered becomes similarly tainted, diarrhœa ensues, and the best way of cutting this short is the old-fashioned plan of sweeping the bowels clean out by a gentle aperient. He condemns Simon's adoption of Hallier's fungus theory of cholera, and Sanderson's incubrations on the same points. Taking the animal creation as a whole, we think he hardly does justice to the disease-producing powers of vegetable parasites.

Thus Beale comforts us with regard to the dangers of vegetable germs—and, by-the-bye, indulges in one or two knock-down blows at the sensational statements sometimes heard, that the dust in the atmosphere is "all germs," perhaps self-generated. But his tale is quite different when he comes to germs of an animal nature. Here, beginning with his now well-known views of the nature of "living" matter, he builds up an elaborate demonstration of the causation, propagation, and mechanism of the diseases which are ranked as "zymotic" or "contagious," and attempts to show that the treatment of these diseases which is generally successful or beneficial is in entire harmony with his views of the nature and properties of "living" matter.

Beale, as is well known (and we cannot point to a handier exposition of his views than was contained in the reports of his original lectures at the College of Physicians in 1861, published in our columns), takes as his starting-point the original "germinal matter" or "bioplasm" of the ovum, which is also known to physiologists by the name of "protoplasm." This structureless marvellous substance has the power of growing, and also of developing by its inherent powers and under due conditions all the structures of living beings, in health and in disease. Its most familiar forms in the adult animal are the "nuclei" of tissues and the white corpuscles of the blood. During certain diseases the white corpuscles or the bioplasm of tissue, whilst it loses its power of assisting in the development of higher tissue, yet acquires the power of almost indefinite self-multiplication. Examples of this are afforded by the bioplasm—say of the cuticular cells—after a blister, which, instead of forming a horny covering to the cutis, multiply prodigiously in the embryonic form, and constitute what is called pus. The same with an inflamed mucous membrane, or any part if injured: there is in the vessels, in their interstices and on the surface, a most rapid growth and multiplication (not mere *accumulation*) of the particles of bioplasm constituting exudation, suppuration, etc. In many instances (pyæmia, variola, vaccinia) the degraded bioplasm possesses extraordinary vitality, may preserve this vitality for long periods, is capable of transplantation, and when transplanted into another organism may increase and multiply, and reproduce a series of all the changes of which itself was the result. *Pus* is degraded bioplasm in its fullest development—possibly dead and effete; but the liquids of diseased organisms (such as vaccine lymph) contain active living particles, thousands of degrees smaller than pus, and (as was proved in the cattle plague) capable of being given off from the mucous membranes, and floating in the air. Beale descants more or less at length on the various kinds of disease germs which may be the issue of the degraded but actively growing bioplasm of a diseased animal, specifying the lymph—as of puerperal peritonitis—capable of poisoning wounds, the pus of gonorrhœa and ophthalmia, the germs in vaccine and small-pox virus, in various kinds of fever, syphilis, tubercle, and cancer.

He next shows that disease germs may *float* in the air (not that they are *volatile*, as ammonia is), may be carried by water, and so may get access to the lungs or stomach, or, lastly, some may enter through the skin. He points to the conjunctiva, and especially to wounds, and to the uterus after delivery, as furnishing surfaces peculiarly liable to afford entrance to disease germs, and thus explains the well-known liability of wounded and parturient patients to Hospital diseases, which are types of germ-produced diseases. Badly filled capillaries, and moist relaxed membranes, with low general *tone*, favour their admission. Certain states of the blood are favourable to their multiplication and activity; and more especially the presence of half-oxidised material not yet converted into urea or other products fit for elimination. Such matter constitutes an *extractive* soluble in hot water; and the presence of this extractive in the blood in excess has been proved in the cattle plague. The phenomena attending the entrance and rapid multiplication of diseased bioplasm are fully discussed, and amongst them a few words are said about feverish rise of temperature, which Beale does not attribute to increased oxidation, but to the multiplication of bioplasm. Here we think Liebig's explanation of the potential oxidation and heat production during the conversion of starch into fat might have been appealed to with advantage. The effects of the multiplication of bioplasm are shown to be obstruction of the capillary circulation in skin and mucous membranes and elsewhere, as evidenced by *rashes*, and even destruction of tissues, as in severe variola and carbuncle. The life period of most disease germs in any individual organism seems limited; they cease after a definite period to grow, and become oxidised and eliminated in the ordinary course.

But with regard to the ordinary sense in which the word "elimination" is used—with respect to the poison of cholera or scarlet fever, for example—Beale looks upon it as a thorough mistake, and his opinions on this point deserve full consideration, inasmuch as they are subjects of microscopic research in which he has few rivals. Looking upon the "poisons" of scarlet fever and cholera, for example, as something in the blood, of a living nature in active growth, he denies such matter can be eliminated as such by gland cells. He believes that the "destruction" of gland cells in the act of secretion is exaggerated; he refers the desquamation of cuticle after scarlet fever, not to the cuticle being the recipient or eliminator of a poison, but to its nutrition being stopped by the deranged circulation in the height of the fever. The idea that the absorbent villi of the small intestines eliminate a poison he looks on as preposterous. On the abstruse subject of the protection afforded by one attack of zymotic disease, Beale intimates that the cause is probably not the exhaustion of a pabulum once for all, but the persistence of some remains of the original morbid bioplasm.

We have no space left for an analysis of the remainder of this work, every page of which bears the impress of its author's great ingenuity in applying his physiological views to the treatment of disease and the explanation of the action of remedies. He gives a full account of treatment, preventive and curative, and in the former order includes an analysis of Lister's antiseptic method. He believes that the carbolic vapour acts, not in protecting wounds from aërial germs, but in solidifying the bioplasm on the wounded surface, and rendering it less susceptible of that morbid growth known as suppuration. His views on *pabulum* are peculiar; he believes that in some blood diseased bioplasm cannot live, and under this head he gives a good deal of sensible matter on the circumstances which render people liable or not to take fevers. The remarks on support, on irritation, on treatment generally, on the action of alcohol locally and generally, have all the marks of originality and thoughtfulness, and deserve a fuller criticism than we can give them. Anyone who reads the

present book will find his ideas on pathology stretched in many unexpected directions, and new interpretations suggested of familiar phenomena. The illustrations, printed in colours, are unique and beautiful.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, May 28.

French Mineral Waters—Ophthalmic Specialities—M. De Wecker—New Operation for Cataract—The best Street Pavement—French Temperance Societies.

One of the results of the late war has been the discovery that France was the only country of Europe that was endowed with all that was necessary to render man happy and comfortable, even with respect to its mineral waters, which are second to none in the world; that its inhabitants had no occasion whatever to have recourse to the empire of Germany, as was formerly the vogue, for any of these; and that even the waters of Carlsbad might be dispensed with, as it is found that those of Montmirail-Vacqueyras (Vaucluse) are alterative and aperient. These waters have been analysed by M. Ossian Henry, Chemical Analyst to the Academy of Medicine, and are found to be eminently saline, the following being the principal ingredients of which they are composed:—Anhydric sulphates of magnesia, soda, and lime; chlorides of magnesium, sodium, and calcium; iodine, phosphates, silica, and alum; sesquioxide of iron, traces of arsenic, and an appreciable quantity of organic matter. This subject is so much at heart with the French just now, that it is to constitute the entire course of lectures by Professor Gubler at the School of Medicine for this session, and thus punish the Germans. Poor revenge!

Dr. De Wecker, one of the most distinguished oculists of Paris, has resumed at his clinique a course of lectures on Ophthalmological Medicine and Surgery, with practical lessons on the use of the ophthalmoscope. Specialism is not much countenanced in France, yet I have seen specialists consulted by some of the most eminent Physicians and Surgeons in difficult cases, who, when they have to do with such a delicate organ as the eye, hand the case over to an oculist. The specialists in Paris having no Hospitals, these are replaced by cliniques at their own expense, where advice is given gratuitously to those who wish to avail themselves of it. This is taken advantage of by the same class that resort to Hospitals and Dispensaries, where the applicants are treated as out-patients. Dr. De Wecker, however, has founded a Hospital of his own (or rather Maison de Santé, as the French do not like the word Hospital), where applicants of all classes are treated, either as in- or out-patients, the former paying for their boarding and lodging. Here one can have first-rate advice and treatment for diseases of the eye gratis, and the institution seems greatly appreciated, as it is generally full. These gentlemen (the specialists) are generally very obliging, as they not only admit other Practitioners to their consultations, but they deliver gratuitous lectures for their benefit. I have paid frequent visits to Dr. De Wecker's Hospital, and found nothing wanting for the treatment of this special class of diseases. Dr. De Wecker, who is a pupil of the illustrious De Graefe, is a most cautious yet brilliant operator, and is, above all, a practical Physician. Through the kindness of Dr. Georges Martin, his Chef de Clinique, I am enabled to present you with an abstract of the statistical report of Dr. De Wecker's clinique, as it may prove interesting to your ophthalmological readers. The report gives an account of the operations which were performed during the last half of the year 1871, which are as follows:—1. Cataracts, 95. 2. Iridectomy, 61. 3. Strabotomy, 43. The operations for cataract are divided as follows:—Eighty-six for spontaneous cataract; five for traumatic ditto; four congenital ditto.

The eighty-six spontaneous and the five traumatic cases were all operated on after M. De Graefe's method of extraction, modified, however, as regards the division of the sclerotic on the one hand and the opening of the anterior portion of the capsule of the crystalline lens on the other. An incision is made in the sclerotic itself one "millimètre"(a) outside the edge of the cornea in a horizontal line, passing two millimètres below the superior border of the latter, and thus bringing the instrument out at a level of the superior border of this membrane.

By this method a small flap is formed, of which the apex corresponds exactly with the superior edge of the cornea, and the base situated two millimètres lower down corresponds with the entire breadth of the membrane at this level, extending two millimètres (one on each side) into the sclerotic. Thus in a cornea of twelve millimètres of horizontal diameter a section of from eleven to eleven and a half millimètres wide is obtained; whereas the maximum of De Graefe's measures only from ten to ten and a half millimètres.

The other modification introduced by Dr. De Wecker was effected in the third time of the operation, the classical method of which consisted in making a simple incision in the anterior aspect of the lenticular capsule, whereas Dr. De Wecker removed a quadrangular portion of the capsule before proceeding to the extraction of the lens, and the instrument employed for the operation is a modification of the iridectomy forceps, to which he has given the name of "pince cystitome." The after treatment adopted in these cases is also deserving of notice; this consists in applying over each eye two circular pieces of fine linen, over which is placed some cotton-wool, and the whole maintained by a binocular flannel bandage. In the evening of the operation a draught containing chloral hydrate (three grammes) is given to the patient so as to insure a good night's rest, and the following morning, when the dressing is removed, and if the pupil is clear and sufficiently dilated, the instillation of atropine is withheld, the solution being employed only when the aqueous humour is a little cloudy, or when free from cortical masses floating in it, or when the iris is threatened with inflammation; otherwise atropine, even a neutral solution of it, would add to the irritability of the eye. In general Dr. De Wecker does not wait until the cataract is mature, but operates at once in the event of both eyes becoming affected at the same time, and that the patient is no longer able to read or write or follow his usual occupation. With respect to the operation itself, he dwells upon the advantage of a large section of the sclerotic, by which means the crystalline lens slips out more easily, preceded and followed by a certain quantity of transparent masses of cortical substance. The failure and the dangers attending the operation for cataract, he adds, often depend, not on an opening too large, but insufficient, and which, in 1786, Wenzel had already pointed out in his treatise on Cataract.

Of the sixty-one cases of *iridectomy* twenty-eight were "optical" and twenty-three "antiphlogistic," and Dr. De Wecker draws attention to the fact that the operation, to be useful in glaucoma and other analogous affections, must be performed *early*, as it is scarcely ever attended with danger. As regards *sclerotomy*, which Professor Quaglino proposes to substitute for iridectomy, Dr. De Wecker observes that whatever may be its utility in other affections, he cannot recommend it as a substitute for iridectomy in glaucoma, as the latter has been proved by experience to be eminently superior to sclerotomy in its entire innocuity, and what enhances the value of the former operation is the incision in the sclerotic, and not the excision of a portion of the iris. Sclerotomy was performed seven times at the Clinique for confirmed glaucoma, but only to relieve the pain and other inflammatory symptoms. The result was the same as that by iridectomy.

Dr. De Wecker, in conjunction with Dr. De Jaeger, has written an excellent treatise on the diseases of the eye, containing an Atlas of Ophthalmoscopy, eighty-nine woodcuts in the text, and twenty-nine chromo-lithographic plates. The work is compendious and complete in its way, and will be found useful not only to the student of ophthalmoscopy, but to the more advanced Practitioner.

In a former letter I mentioned that owing to the increasing difficulties of free circulation in the streets it was proposed to have subterranean boulevards in the most commercial quarters. It is now in contemplation to intersect Paris by tramways and underground railways; the establishment of the former has just been decided upon, and they are to communicate with the suburban towns immediately outside the fortifications. The importance of this measure is incalculable in a sanitary as well as a commercial point of view, and we can only wish it every success. Of course every precaution is to be taken for the lighting and proper ventilation of the underground railways.

The municipal authorities of Paris are puzzled as to the material to be adopted for the streets. It is found that macadamised roads, though comfortable for those who ride in carriages, are detestable for foot-passengers during the rains, when they become slushy; besides which, they are fatiguing to

(a) 2·1166 millimètres are equal to an English line.

the horses, as the draught is greater; and the keeping them in repair costs at least one-third more than the ordinary pavements. Bituminised roads, besides having the latter drawback, are dangerous for horses, as they are very slippery in all weathers. Stone pavements are noisy, so they are now trying wooden ones in some of the streets; but I am afraid they will not answer, as, notwithstanding that the wood is hard and the bricks are coated over with tar, they are not completely waterproof, and the drainage would in consequence be defective. Another objection against them is that they damp the rattling of the carriages, and thus many accidents have occurred of people being thrown down or run over in the streets. There is nothing, in my opinion, equal to granite for paving the streets, as being cleaner, healthier, and more economical in every respect than the other systems.

The French Temperance Association held its first meeting on Sunday, the 12th inst., under the Presidentship *pro tempore* of M. Barth. The object of the meeting was simply to organise a committee of management and a council, which, as you will find by the list published in the Paris journals, are composed of laymen as well as of members of the Medical Profession, of which M. Hippolyte Passy, Member of the Institute, has been elected president. The subscription for founders of the association is twenty francs, and for all others ten francs per annum. These will be entitled to receive the publications of the society and to take part in the elections for the council and committee, but the founders alone will be eligible as members for either. After a while other subscribers of a trifling sum will be admitted, whose privileges, of course, will be more limited.

AUSTRIA.

Vienna, May 27.

Results of Professor Stricker's Investigations on the Nature of Dr. Lostorfer's Corpuscles—(*concluded*).

At this stage Professor Stricker was about concluding his experiments, and registering merely the indefinite results. However, before doing so, he was anxious to know whether or not more useful experience might be gained by exposing the objects to a higher temperature. This had already been done previously, and the corpuscles were seen perishing under the formation of vacuoles, and it has just been the intention of the experimentalist to study the origin of the vacuoles. Heating, however, a preparation slowly to 38° C. (made of the blood of the above-mentioned patient), a most remarkable aspect was revealed to the eyes of the observer. A plasma-islet, hitherto perfectly transparent, after fifteen minutes became so perfectly filled with granules as to give the impression of the disappearance of transparency by some precipitate. These granules were growing fast, and it was curious to observe a large number of them exhibiting knob-like projections. When observing such a corpuscle continually, as long as the eye would tolerate it, the two little bodies—viz., the corpuscles and the knob—were seen to retreat and to approach each other. Further observation showed them to be connected by means of a fine elastic thread, allowing the movements just described. The number of corpuscles seemed still on the increase, although their size did not assume the extent of the bodies when being slowly heated to from 22° to 25° C.

Having repeated the experiments on the next day with preparations of the blood taken from the same patient, and having obtained the same results, Professor Stricker considered the principal question solved. According to the present state of our knowledge we can only explain the phenomena of the corpuscles separating and approaching by the assumption of the elasticity of the joining thread of the bodies, themselves being organisms.

Now the phenomena of growth had assumed a more precise significance. It has been said that the projections may also be the result of apposition, but this was only said in order to show how attempts have been made to explain the mode of growth before the results just described had been obtained. A similar mode of cell-division has frequently been observed by Stricker in excised pieces of tissues of the frog, the two halves of a dividing cell being connected by a thread, the latter frequently changing its optic properties and becoming invisible, and the whole process seeming finished, the two halves nevertheless approaching each other and becoming confluent. It is a fact well known to all histo-pathologists that pus-corpuscles under certain circumstances of division do not assume a considerable size, but increase rapidly, and form tissue as soon as the conditions become unfavourable to partition. These observations are in accord with the experiment made on the corpuscles in question, assuming a larger size under a temperature of from 22 to 25° C., but growing larger in number under 38° C.

Concerning the origin of the organisms there is only one alternative of their coming either from the atmosphere or from the blood, the germs in the latter case having already existed in the circulating blood, or being later admixed by heterogenesis. The latter alternative is not likely to gain adherents, and Stricker himself would not like to be considered as such; the *generatio æquivoca*, however, cannot be denied to be one of the possibilities in this instance to be taken into consideration.

The second question to be solved is whether or not the organisms in question are peculiar to syphilitic blood. To this question Stricker at once replied in the negative. He has used for his experiments thirteen patients suffering from general syphilis. Nine of them exhibited large numbers of the organisms; in two cases they decidedly did not exist at all; and in two there were very few, so that it was advisable to consider these cases likewise as negative—making up altogether nine positive and four negative cases. The first case of lupus at Stricker's disposal also exhibited large numbers of the organisms, and there were likewise nine cases, in one of which the corpuscles were discovered, though not in large masses, making two positive cases in nine cases of lupus.

The results thus obtained seemed to support to a certain degree Dr. Lostorfer's teaching. In thirty-seven non-syphilitic cases Professor Stricker found the organisms in but two, and even in these two cases the supposition was admissible that a thorough difference between lupus and syphilis was not beyond all doubt.

In the meantime an occurrence took place which drew Professor Stricker's attention towards another direction. The patient whose blood had served for the preparation of the objects for the investigation was attacked with hæmoptysis, and as the results had been obtained in no other person in such a pregnant manner, the idea was not to be dismissed from consideration that ill-nutrition or a combination of syphilis with some other general disease might be the cause of the numerous development of corpuscles in this patient. This induced Stricker to experiment with blood from individuals suffering from grave chronic illnesses. The experiments were made with few patients only, but suffice, however, to arrive at certain conclusions for the present. Large numbers of the organisms were found in a case of cancer of the stomach, and in two cases of tuberculosis. Having further been discovered in a very advanced case of altered nutrition—namely, in Bright's disease combined with heart disease—and in another case of anæmia after small-pox, Professor Stricker considered his investigations advanced far enough to arrive at conclusions sufficient to pronounce the organisms in question not to be *exclusively* characteristic to blood of syphilitic patients. Considering, however, that they have not been discovered in a considerable number of healthy persons, and of patients suffering from acute diseases, the discovery of Lostorfer must be admitted to be of some importance for pathology in general and for syphilis in particular. Of course, we are not warranted in denying altogether the existence of the alleged elements in healthy persons and in sufferers from acute disease. For that purpose the number of experiments is insufficient; but Professor Stricker thinks his experiments sufficient to show the prevalence of the newly discovered bodies in the blood of individuals subject to long-lasting chronic disease, and particularly to syphilis.

GENERAL CORRESPONDENCE.

IRISH UNION OFFICERS' SUPERANNUATION.

Letter from Dr. J. Rogers.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to forward you a copy of a Bill, which has been sent me by Dr. Maunsell, of Dublin, with a request that I would ask you to insert it in your this week's issue. The Bill as brought in by Lord Hartington and the Irish Attorney-General excludes Dispensary Medical Officers and Registrars of Births and Deaths from its advantages, and is as printed in Roman type. Dr. Maunsell desires me to get the amendments (printed in italics) added thereto. Will you, therefore, call attention to them editorially. Our Association met last night, and resolved to co-operate with the Irish Association in urging that these amendments should be conceded. I am, &c.,

33, Dean-street, Soho, May 24. Jos. Rogers.

Union *and Dispensary* Officers' (Ireland) Superannuation (35 Viet.).

A Bill to Amend the Acts providing Superannuation Allowances to Officers of Unions *and of Dispensary Districts of such Unions* in Ireland.

Whereas it is expedient that the Acts of the twenty-eighth year of the reign of her present Majesty, chapter twenty-six, *and of the thirty-second and thirty-third years of the reign of her present Majesty, chapter fifty*, providing Superannuation for Officers of Unions in Ireland *and for Medical Officers of Poor-law Unions and of Dispensary Districts of such Unions in Ireland*, should be amended. Be it therefore enacted by the Queen's most excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. This Act and the recited Acts may be cited together for all purposes as "The Union *and Dispensary* Officers' (Ireland) Superannuation Acts, 1866, 1869, and 1872."

2. The Superintendent Registrar *and the Registrars* of Births, Deaths, and Marriages appointed in any Union in Ireland shall be deemed Officers within the operation of the recited Acts; and in computing the salary of any Officer of a Union *or Dispensary district of such Union* under the recited Acts and this Act, the amount of the emoluments of his office on the average of the three years concluded in the last preceding quarter may be taken into calculation by the guardians, and charged upon the rates of the Union at large.

A DISESTABLISHED PROFESSION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Wise men keep their eyes open to matters of fact, and are conscious that there is no security for any established system or school of thought if popular prejudice, ignorance, supposed convenience, or economy run counter to it. Medicine has been heretofore, in a certain degree, established or protected by the State. The Apothecaries' Act gives power to recover penalties from unqualified persons for visiting and sending medicine. But these laws depend upon public opinion for their force, and if all classes—magistrates, county-court judges, jurymen, and tradesmen—choose to go to a chemist for Medical attendance and medicine, who shall hinder them? It is of no use to rail against the Pharmaceutical Society or the chemists. There is a demand for the system of ready advice over the counter, and the dose off-hand, with a charge (nominally) for the medicine alone; and so long as that demand continues, it will be impossible by any system of penalties to prevent men from supplying it. Here is a crucial point. Suppose a message comes to a chemist that a woman is bleeding to death in the next street—it may be from wound, or from hæmoptysis, or from parturition—is that chemist to go? Would that incarnation of popular sentiment, the "British Jury," sanction his not going? But if he go in a case of emergency, is he to be subject to a penalty if he attends in other cases? How is a chemist to know whether a case he is sent to is one of urgency or not?

It is really too late in the day to attempt to fence in Medical practice by any form of protection. In order that Medicine may flourish, and its general Practitioners be well remunerated, two things are requisite—one, that the public shall believe in their skill; the other, that they shall have easy access, and be able to obtain medicine at one charge. If these two conditions be fulfilled, the general Practitioner will keep all that the chemist is now supplanting him in.

All that a Government can do is to put disabilities in the way of irregular Practitioners, and to employ none for any official purpose who have not gone through a regular education; but there is no security against any absurdities or heresies within our own body—homœopathy, for example. I believe that some men have been elected parish Doctors who practise on this (so-called) "principle."

The sum of the matter is, Mr. Editor, that we must trust in ourselves and keep our powder dry. Government may disestablish us, gives us no privileges, and put quacks on an equal footing; but they cannot disendow us so long as the public choose to pay us. Show me a Medical man of good sense and experience, who sticks to his business, and is qualified to get on in the world, and you will find that he holds his own, and does not complain if his patients get a black dose at the chemist's. If any men do complain of the chemists, let them come down from their stilts and compete with them fairly.

I am, &c., Sexagenarius.

The New French Medical Faculties.—According to the journal *La France*, the Minister of Public Instruction has in preparation a Bill for the complete reorganisation of Medical education. He will propose maintaining the present Medical Faculties at Montpellier and Paris, giving some extension to the latter, and creating new Faculties at Bordeaux, Lyons, Nantes, Lille, and Nancy.—*Gaz. Méd.*, May 25.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 14.

Geo. Critchett, F.R.C.S., Vice-President, in the Chair.

The following papers by Mr. M'Carthy, Assistant-Surgeon to the London Hospital, were communicated by Mr. Curling, the President of the Society:—(1) "A Description of some Renal Calculi of unusual shape found in the Kidney of a Patient who died of Cancer of the Uterus," etc. (2) "An Account of a Case of Intestinal Obstruction in which an Artificial Anus was established successfully in the Small Intestine; recovery and subsequent death from Cancer and Fatty Degeneration of the Heart."

With regard to the second paper,

The Chairman applied to Mr. Maunder, who remarked that he was led to advise operative procedure, inasmuch as there was evident contraction and gradual filling up of the canal. He considered that much of the success that attended the operation was due to the skill and "elegance" with which it was performed.

Mr. Timothy Holmes commented upon the great interest of the case, but wished to know why the small rather than the large intestine was opened, and, as the obstruction depended upon cancer, why not have ascertained how far the ascending colon was free. He believed that it was extremely difficult in all these cases to arrive at an exact diagnosis, and suggested that the amount of fluid injected per rectum was a far better indication of the seat of obstruction than the O'Beirne tube, the usefulness of which latter was, according to his knowledge and belief, much overrated. In concluding, he expressed grave doubts as to the propriety of an early operation, and thought that in such cases it was often well if the patient was saved from the Surgeon altogether.

Mr. Thomas Smith dwelt emphatically on the difficulties that occurred in returning the intestine when it escaped from the opening in the abdominal cavity, and quoted several cases in illustration thereof.

Mr. John Wood had seen this kind of operation performed, had performed it twice himself, and had not found insuperable difficulty in returning the intestine; but if such difficulty existed he should not hesitate to puncture with a trocar and canula, because whether air or fluid be present some amount of benefit must follow. He doubted, however, the wisdom of the operation, as all patients died.

Mr. Hulke took some sort of exception to the particulars of the operation, asserting that the operator could not know what part of the small bowel was caught up.

Mr. M'Carthy, in reply, said that he had not used injections; that he did not operate as suggested by Mr. Holmes, because the right colon might have been diseased as well as the left; and that his knowledge of regional anatomy enabled him to state a belief that the lower part of the ileum was usually situated at the place where in this case he had found it.

Mr. Robert Hamilton read a paper, "On the Synovial Membranes in Pyæmia." After a brief account of the views at present held by the majority of writers on pyæmia as to the way in which the morbid changes found in this disease are brought about, the author dwells upon the fact of the synovial membranes being so generally attacked in pyæmia—a circumstance that has not hitherto attracted sufficient attention, though it makes it extremely probable that the first step in these forms of surgical pyæmia most commonly met with in Hospital practice is to be found there. All the cases occurring at the Southern Hospital for the last thirteen years, of which particulars have been kept, had some joint affection. In some the pathological changes in the joint were slight, in others most extensive. That the disease observable in the joints begins in the synovial membrane is rendered probable from the character of the pain, and from the appearances found after death. The poison of pyæmia, as observed in Hospital practice, is *sui generis*. Whether generated in the system from a combination of constitutional and surrounding conditions, or entering as a specific germ through a wound, it is a poison having a special affinity for certain structures, and to these it passes at once. The structures are here assumed to be the synovial membranes. In what this affinity or attractiveness consists we are as yet ignorant, and can but illustrate it by

what takes place in other diseases, such as the cholera poison, and the scarlatinal poison, or the producer of tetanus; whether it is a something evolved within the system, or introduced from without, it goes at once to certain nerve-tissues, and in them creates changes which set up other morbid action. Many drugs illustrate the same fact. Strychnia when swallowed, or when subcutaneously injected, has but one form of action, like the poison of tetanus—it affects nerve-tissue only. The strong analogy between pyæmia at the commencement, and acute rheumatism, has often been observed. In both there are the rigors, the fever, the rapid pulse, the profuse sweating; but above all there is the pain and swelling of one or more joints. It seems probable that in both an entity has entered the system whose habitat is the joints. We cannot tell in what consists the difference of the two poisons, so that the one as a rule eventuates in recovery, and the other in a train of pathological changes whose termination is death. In both cases the tissue first affected is the synovial membrane. The abnormal action induced in it leads to an increased secretion of synovia, probably unaltered in its character and constituents in rheumatism, but of an abnormal kind in pyæmia. In the case of the synovial fluids there is in most joints a limit to its quantity; so tightly is the synovial sac compressed by surrounding tissues which are not yielding that an amount of tension quickly ensues, which leads to a forced absorption of some of the effused fluid, and then ensues in acute rheumatism, and probably as a necessary sequence, an extension of the disease to other synovial sacs, and often to the pericardium, a serous membrane, but closely allied in its nature to a synovial membrane. This augmented synovial fluid is in rheumatism a bland and innocuous fluid—a mere increase of the natural secretion; but in pyæmia it is in a decomposing state, developing rapidly germs of a lower organisation; and when such a fluid has been absorbed, and in its course reaches the minute capillaries of the lungs, some of its morbid cells coagulate the fibrine of the blood there, and become arrested, and thus are formed the nuclei with which the lungs are studded, around which more fibrine is deposited, and the pathological changes follow described by Virchow and others. In conclusion, the author states that in limiting the paper to a consideration of the fact of the synovial membranes being the tissues first affected in many forms of pyæmia, he had not lost sight of the probability of many other phases of pyæmia having their beginnings in one or other of the serous membranes, these two membranes being so closely allied in their microscopic characters.

Mr. Hulke failed to understand the theory of the author as to the re-entrance of fluid into the joints, and hoped to have heard some suggestion explanatory of the source of pus found in the joints, and how nerichophytes, etc., originate under such circumstances. He also averred his belief that many cases of pyæmia occur without any affections of joints.

Mr. Wood failed to understand how joints can, as it were, manufacture a poison without some predisposition on the part of the fluids of the body, and then only the joints should be affected rather than any other part.

Mr. Hamilton, in reply, regretted that he had not been sufficiently understood. He believed that the fluid spread from one joint to another, on account of the pressure exercised on the synovial membrane, which forced the fluid into the circulation. His observations as to the presence of living organisms in the fluid were made irrespective of the results recorded by Dr. Burdon-Sanderson. He had never any case of pyæmia without some stiffness, if not positively acute affection, of the joints.

A paper by Dr. W. Murray, "On Some Further Attempts to Cure Large Internal Aneurisms," was communicated by Dr. Symes Thompson. This is an account of some attempts to cure internal aneurisms by the insertion of foreign bodies with a view to the formation of clots in the interior of the sac. Some of these bodies were introduced and again withdrawn (needles), and their introduction was repeated at intervals with manifest thickening of the aneurismal walls on each occasion; others were of a material the presence of which would be as harmless as possible (carbolised catgut), and they were used because of the hope that their absorption might take place after the work of coagulation was completed. Lastly, wire was tried, as in Mr. Moor's case, and with more favourable results as regards the preservation of the patient's life, he having laid more than three weeks with twenty-four feet of wire in him. Although none of these efforts were actually successful in curing the patient, they mark out a line of practice which may some day be perfectly safe and successful.

Mr. Timothy Holmes thought Dr. Murray's paper useful as tending to show the harmlessness of such operations, and to indicate that Surgeons might meddle with aneurisms to a much greater extent than was generally imagined. After remarking that the introduction of carbolised catgut was manifestly useless (because it would soften rapidly) he said that Mr. Moore's case (the preparation is now in the Middlesex Hospital) showed markedly the dangers of the operation, and it was evident that wire or any other material of sufficient hardness to help coagulation when introduced into the sac, must, by rubbing against the walls of the latter, tend to set up a dangerous degree of inflammation.

Dr. Andrew demurred to the wisdom of Surgical interference, inasmuch as external ruptures of the sac are extremely rare, and any modes of procedure such as those described would tend to produce a clot around the strongest instead of the weakest portion of the sac.

CLINICAL SOCIETY OF LONDON.

Friday, May 10.

Sir William Gull, Bart., M.D., F.R.S., in the Chair.

Dr. Burney Yeo read a paper "On a Case of Paralysis of the senses of Taste and Smell following Concussion of the Brain." The patient, a man, aged 50, came to King's College Hospital on January 11, having four months before been thrown out of a cart. He was admitted into St. Thomas's Hospital in a semi-conscious state, under the care of Mr. Croft. A slight contusion was discovered on the back of the head, but there was no fractured bone. He vomited, was delirious and insensible during the night, and in the morning complained of much pain in the head, which was relieved by aperients. He soon recovered, and, feeling well, discharged himself after he had been in the Hospital about a week. He found, however, that he could neither taste nor smell. This condition had persisted ever since the accident. He had suffered also a good deal from giddiness, and from severe pains on the right side of the head. He had been a perfectly healthy man, and quite free from any syphilitic taint. The patient's statements were thoroughly tested. Salt, sugar, solution of quinine, dilute acids, tincture of assafœtida, were applied to the tip, the centre, and back part of the tongue, to the under as well as the upper surface, but were not recognised in any degree. The tongue, however, was sensitive to the slightest touch, and its movements were perfect. The sense of smell, similarly tested, was found to be absent. The patient was ordered five grains of iodide of potassium three times a day. The first two doses produced such violent symptoms of iodism that it could not be continued. The dose was therefore reduced to two grains; and as this also acted in the same way, only one grain three times a day was given. This dose, at first, produced iodism, and afterwards purged him; he, however, continued to take it. In a few days the sense of taste began to return. On January 25 he could taste solution of quinine as bitter, and tincture of assafœtida as bitter; but he could detect no odour in the latter. He could distinguish salt from sugar, but not tea from coffee. The sense of taste continued to return rapidly. On February 11, he was able to taste the flavour of meat for the first time for twenty weeks. He could also now perceive strong odours; but smell came back less rapidly and less perfectly than taste. In connexion with the return of smell, he complained of a curious subjective affection of this sense; a foul smell comes into his nose like that of a stale tobacco pipe, and it seems to come down from the head! By March 20 the patient was quite well. Dr. Yeo thought this case offered many points of clinical and physiological interest. He thought it a somewhat rare circumstance to find the senses of taste and smell clearly absent together without any other affection of the nervous system. The absence of taste could not, in this case, be simply the consequence of loss of smell, as solution of quinine and tincture of assafœtida were, at first, not distinguishable from water; and when the latter was first recognised, it was as a *bitter* substance, and its peculiar flavour was not perceived: moreover, the sense of smell returned much later than the sense of taste. It was difficult to say what could be the lesion which would produce paralysis of these two special nerves and of no others. This difficulty was increased rather than diminished by the very remarkable manner in which the administration of iodide of potassium had been followed by the recovery of both senses.

Dr. Lockhart Clarke believed the condition to depend on shock. He had seen several similar cases originating in this cause. He did not think there was any lesion, and was of opinion that, probably, the stimulation of the nasal mucous

membrane produced the cure. He related the case of a child who, by standing on its head, brought on symptoms of concussion and hyperæsthesia of the leg, with the exception of the parts about the knee. The child had previously suffered from chorea, and indeed still presented slight symptoms of that affection. The child had, previously to being seen by Dr. Clarke, been confined to bed for four months. By local treatment the limb got well in six weeks.

Dr. Hughlings-Jackson thought the case a very interesting and yet a very puzzling one. He had not seen complete loss of smell and complete loss of taste together. Not very unfrequently a patient would say he had loss of taste when examination showed clearly that he had lost smell alone. The subjective sensations complained of by Dr. Yeo's patient were very important. Such subjective sensations occurred as a so-called aura in some epileptiform seizures, and especially in those cases in which consciousness was lost without convulsions; in some cases there were convulsions. Dr. Hughlings-Jackson believed that in these cases there was disease in the region of the anterior cerebral artery, and that the subjective sensations were of particularly evil omen as to mental failure.

Dr. Broadbent said that he had seen two cases in which incomplete loss of smell and taste had become permanent. He doubted whether there was total loss of taste in Dr. Yeo's patient, and related the details of an interesting case, showing the possibility of Dr. Yeo's patient having meant that he could not distinguish all the features of the various substances.

Dr. Buzzard, referring to a case related to the Society by Dr. Anstie, in which severe neuralgia of the fifth nerve was accompanied by loss of smell and taste, suggested the possibility that, in Dr. Yeo's case, a lesion of the trigeminus had caused the loss of the same two special senses, the integrity of this nerve being apparently as necessary for the proper action of the olfactory lobes as for the perfection of the sense of taste.

Mr. Christopher Heath had seen more than one case in which taste and smell were gone, and alluded to the case of a lady who, after an accident, lost both taste and smell. This lady had, strange to say, found several among her Indian friends who had also lost both senses.

The President thought that the cases were not very rare. It was very difficult to separate taste, touch, and smell. In the present case, quinine was not felt in any degree by touch or smell, but touch was not gone. He thought there may have been shock to the sympathetic centres in the neck, and through this channel to the nerves of taste and smell.

Dr. L. Clarke referred to a case of locomotor ataxy he had already published, in which both taste and smell were lost.

The President observed that Dr. Clarke's case exemplified what he had just said about the sympathetic.

Dr. Yeo then made a few remarks in reply.

Dr. Baümler communicated a case of Enteritis, illustrating the dangerous effect which in cases of this kind may follow the use of the mildest purgative even after all acute symptoms have subsided. The patient, a young man aged 22, was taken ill, after some irregularity of diet, with symptoms threatening peritonitis. There was great pain in, and extreme tenderness of, the abdomen, with some distension, besides high pyrexia. With rest and opium, these symptoms subsided in a few days; and on the sixth day of illness a furred state of the tongue, slight tenderness in the cæcal region, and constipation were the only abnormal symptoms remaining; pulse and temperature being quite normal, and the appetite returning. On the following day, the bowels not having acted for five days, and the descending colon being filled with solid fæces, half an ounce of castor-oil was given. No sooner had this commenced acting, than all the previous symptoms returned; the temperature again exceeding 102° Fahr., and the patient for some days being in a somewhat critical state. Gradually, however, the symptoms subsided. On the seventh day of this relapse the pyrexia declined, and the bowels, which had not been open since the action of the castor-oil, moved spontaneously. From that day the recovery was uninterrupted.

The President observed that the question raised by the paper amounted to this—Was the medicine put into the intestine less irritating than the contents? It did not appear to have been so in the present case.

It has been resolved by the St. Pancras Vestry to petition Parliament against the Steam Boilers Bill, which proposes to give power to coroners to hold inquiries in all cases of explosions at the cost of the county rates.

OBITUARY.

J. C. WEEDEN COOKE, M.R.C.S., etc.

This well-known Surgeon died a few days ago at the age of 56. He was educated at the Middlesex Hospital, and for many years was Surgeon to the Royal Free and Cancer Hospitals. He belonged to several of the Medical Societies, but attended chiefly the Medical Society of London, at the meetings of which he was a frequent speaker and contributor of papers and cases. Author of "Cancer, its Allies and Counterfeits," 1865; "On Hydrocephalus," 1850; "Nature and Art in the Cure of Syphilis," 1861; "Prospects and Retrospects in Physic and Surgery," 1863; "On the Unity of Disease," 1866; "Urethral Diseases," 1867. Contributed various papers "On Cancer," *Lancet*, 1853, 1857, 1858, 1867; "New Instrument for the Gradual Reduction of Dislocation of the Os Femoris," *Ibid.*, 1855; "Surgical Diseases of the Tongue," *Medical Times and Gazette*, 1861; and other papers to Medical journals. Mr. Cooke was a painstaking and laborious Practitioner; but he was not a man above the average, so far as powers of observation and the treatment of disease are concerned. He was rather heavy than brilliant—rather "slow" than decided. He was an amiable man, and much esteemed by those who knew him.

ROBERT WIGHT, M.D., F.R.S.,

Died on the 26th inst., at Grazeley Lodge, Reading. Dr. Wight was born at Ormiston, Haddingtonshire, in 1796, and graduated at Edinburgh in 1816. After making one or two voyages as Surgeon to a ship, he went out to the Madras Presidency, India, in 1819. He was Assistant-Surgeon, and afterwards Surgeon, to the 33rd Native Light Infantry. It is, however, as a botanist of untiring energy and extraordinary sagacity and tact that Dr. Wight is best known. His publications are very numerous and of great value and importance. They were compiled under circumstances which would have appalled a less energetic man. As it is they form an enduring memento of his industry. His appreciation of structure and affinities was not less remarkable than his industry. Dr. Wight contributed several papers to various scientific journals on subjects connected with Materia Medica, as also on matters connected with the cultivation of cotton and other products in India. He became a Fellow of the Royal Society in 1854 on his final retirement from India.

GEORGE WILLIAM JOTHAM, M.R.C.S. Eng., L.S.A.

We regret to record the death of Mr. George William Jotham, of Kidderminster, who, after a long life spent in the active duties of his Profession, died on May 7. Mr. Jotham, who had been the leading general Practitioner in Kidderminster and surrounding district, was born at Bradford, Wiltshire, in 1804, and studied at St. Bartholomew's Hospital, having been a pupil of the great Abernethy. In the year 1828 he came to Kidderminster, and in 1831 was appointed an Hon. Surgeon to the Infirmary, which post he held with much credit to himself and for the welfare of the institution until within a month or two of his death. When he found his health failing, and that he could no longer conscientiously perform the active duties of his office, he tendered his resignation, which was accepted by the Committee of Management with great regret, who at the same time passed a resolution—"That, while greatly regretting the resignation of the Senior Hon. Surgeon, who has been for forty-one years connected with this institution, they cannot refrain from showing their sense of esteem for his services in past years, and acknowledging the very warm interest he has always taken in all connected with the Infirmary." At the same meeting he was unanimously elected Consulting Surgeon. His loss will be acutely felt in the district through which his practice extended, for he was not only prized for his skill and sound knowledge as a Surgeon, but also for his thorough and uniform kindliness and benevolence of heart.

WILLIAM STEWARD, SURGEON.

We regret to record the melancholy death by drowning of the above gentleman. Mr. Steward resided at Camphill, Lumphanan, and was 70 years of age. On Wednesday week he was found lying dead in the side ditch of the road, opposite a croft at Camphill, in about seven inches of muddy water. The body was found by a woman passing, who got it removed to the residence of the deceased. Mr. Steward had been away from home in the morning, but had returned, and again left about midday to see a patient. It is supposed he had stumbled

into the ditch on his way home from this visit, and being rather infirm had been unable to extricate himself. Dr. Smith saw the body immediately after it was found, but could render no assistance.

HENRY HARRIS, M.R.C.S.,

Died at a very advanced age at Brighton the week before last. He was for many years in general practice in Fenchurch-street in the City. He was one of the most successful "general Practitioners" of the day, and was one of the hardest worked. He suffered from illness for some time before his death. We believe he made no contribution to the literature of the Profession.

PETER NEVILL JACKSON, M.R.C.S., L.S.A.,

Surgeon of the 2nd Dragoons, died at Edinburgh on the 14th ult., aged 43. He entered the service April, 1854, and became Surgeon June, 1865. He served in the Eastern campaign of 1854-55, including the battles of Balaklava and Inkermann, and the siege of Sebastopol—medal with three clasps, and Turkish medal. Served in the Indian campaign, and was present in the action at Bootwab—medal.

NEW INVENTIONS.

THE APOLLINARIS WATER.

We have long been familiar with the Apollinaris, and have frequently partaken of it at the tables of gastronomic *cognoscenti*; but we never paid any serious attention to the subject till stimulated by the receipt of a sample from Messrs. Blanchard, of 169, Regent-street. It is a natural effervescing alkaline water of great delicacy of taste, well adapted for table use, and calculated to displace the Nassau seltzers. It is brisker and not so soft as the latter, and consequently more appetising. It is not so alkaline and heavy as Vichy. All these waters have their special uses; and the Physician who has to recommend something slightly diuretic, refreshing, and antacid to a gouty patient, will find plenty of cases in which the Apollinaris water may be of great service, whether quaffed at dinner or at bedtime. It is economical in its use, as it does not speedily become flat on exposure to the air.

WESTERTON'S PATENT ZYMOTIC DISINFECTING FLUID.

This is a new candidate for favour as a disinfectant. It differs from fluids of this description generally, in being highly *volatile*, and is intended to "disseminate disinfecting matter in the atmosphere." We have used the fluid somewhat extensively, and are fully satisfied that it is a valuable addition to our list of disinfecting agents.

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, May 23:—

Bennett, William Edward, Stoke, Devonport.
Lyell, Robert Wishart, Upper Norwood.
O'Connor, Watkin Roberts, Berners-street, W.

As an Assistant in Compounding and Dispensing Medicines—

Poyser, Robert, Wirksworth, Derbyshire.

The following gentleman also on the same day passed his Primary Professional Examination:—

Dobson, Joseph, Leeds Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Cartright, Hamilton Samuel, M.R.C.S., L.D.S.—Assistant-Surgeon to the Dental Hospital, Soho-square, *vice* John Scully, M.R.C.S., L.D.S., resigned.

Coleman, James Joseph, L.R.C.S.—Medical Officer for Division No. 1 of the Cloonbur District, Oughterard Union, county Galway, *vice* Edward McGuire, L.K.Q.C.P.I., resigned.

Collins, Thomas, M.R.C.S. Eng., L.A.H.—Deputy Governor of the Apothecaries' Hall, Dublin.

Deakin, C. W. Shirley, M.R.C.S.—House-Surgeon to the Male Lock Hospital, Dean-street, Soho-square, *vice* A. Appleby Thomas, L.R.C.P., M.R.C.S., resigned.

Elliott, Thomas, A.B., M.B., L.R.C.S.I.—Resident Medical Officer to the General Hospital and Dispensary, Douglas, Isle of Man, *vice* S. Laird, M.D., M.R.C.S.L.

Hill, John D., F.R.C.S., L.S.A.—Surgeon to the Royal Orthopædic Hospital, Oxford-street.

McDowell, Charles W., M.B., L.R.C.S.I., L.A.H.—Medical Officer for the Dispensary District of Carlow Union, Ireland.

O'Dwyer, John, L.R.C.P. Edin., L.R.C.S.I.—Medical Officer and Public Vaccinator for the Scrooby District of East Retford Union.

Purcell, James George, L.R.C.P. Edin., M.R.C.S. Eng., L.M.—Medical Officer to the Workhouse, Knutsford, Cheshire.

Rayner, Henry, M.D., M.R.C.S., L.S.A., M.S.—Medical Superintendent of the Male Department of Middlesex County Asylum, Hanwell.

Robertson, G. J. E.—House-Surgeon to the District Infirmary, Ashton-under-Lyne.

Roobbs, Joseph, M.D., M.R.C.S. Eng., L.S.A.—Medical Officer to the Westminster Workhouse, Poland-street.

Sheppard, H. H., M.R.C.S. Eng.—Surgeon to the Norwich Friendly Societies Medical Institute.

BIRTHS.

Bourne.—On May 20, at Mountfield, Musbury, near Axminster, the wife of Walter Bourne, M.D., of a son.

Kirkman.—On May 19, at Barming-heath, Maidstone, the wife of W. P. Kirkman, M.D., M.R.C.S., L.S.A., of a son.

Maffey.—On May 23, at St. John's, Wakefield, the wife of John Maffey, L.R.C.P., of a daughter.

Moore.—On May 26, the wife of Walter Moore, M.R.C.S. Eng., L.S.A., Stourport, Worcestershire, of a daughter.

Propert.—On May 28, at 100, Gloucester-place, Portman-square, the wife of J. Lumsden Propert, M.B., M.R.C.S., L.S.A., of a son.

Ward.—On May 23, at the Royal Arsenal, Woolwich, the wife of William Pearson Ward, Surgeon-Major Royal Artillery, of a son.

Weston.—On May 21, at Stafford, the wife of E. F. Weston, M.R.C.S. Eng., L.S.A., of a daughter.

MARRIAGES.

Rowell—Fitzpatrick.—On May 16, at St. Mary-of-the-Angels, Bayswater, W. Patrick Irvine, second son of the late Joseph Rowell, Esq., of Aberdeen, to Henrietta Clothilda, youngest daughter of the late Percy Fitzpatrick, M.D., M.R.C.S.L. (formerly of H.M.'s 51st Regiment), magistrate of Mauritius, and granddaughter of the late Hon. Andrew Maure, member of the Legislative Council, Mauritius.

Edwardes—Gair.—On May 22, at St. Paul's, York, Edgecumbe Ferguson, of the Inner Temple, London, and Windlesham Hall, Surrey, barrister-at-law, son of the late Edgecumbe Windeatt Edwardes, Physician-General Bombay Army, to Emily Gair, daughter of the late Joseph Dobson, Esq., of Selby.

Hamilton—Reyner.—On May 23, at the Albion Chapel, Alexander Hamilton, L.R.C.P. Edin., L.R.C.S., to Helen, third daughter of Frederick Reyner, Esq., of Thornfield Hall, Ashton-under-Lyne.

Hayward—Walker.—On May 23, at St. Saviour's, Paddington, John Hayward, Esq., second son of Frederick Hayward, Esq., both of Needham Market, Suffolk, to Alice, second daughter of John B. Walker, M.R.C.S. Eng., L.S.A., of 17, Chilton-gardens, Maida-vale.

DEATHS.

Barnett, Samuel Boyd, M.D., fourth and youngest son of the late Hon. Samuel Whitehouse Barnett, at 2, Clarendon-gardens, Maida-vale, on May 22.

Cornwall, James, M.D., F.R.C.S.E., suddenly, at Edinburgh, on May 18.

Harris, Charles, M.R.C.S. Eng., at his residence, 67, Lansdowne-place, Brighton, late of 13, Fenchurch-street, and 76, Guildford-street, Russell-square, London, on May 23, in the 82nd year of his age.

Hutchison, George S., M.R.C.S. Eng., L.S.A., second son of Charles Hutchison, M.D., of Norwich, on May 24, in his 40th year.

Martin, Janet, the beloved wife of Curtiss Martin, M.R.C.S. Eng., H.M.'s 41st Regiment, at Umballa, Punjaub, on her way to England, on April 28, aged 28.

Pope, Sarah Eliza, widow of Jonas Hall Pope, Esq., Surgeon, formerly of Manchester-square, on May 24, aged 64.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

Amersham Union.—Medical Officer for the Workhouse, and Medical Officer for the Amersham District. Candidates must possess the qualifications required by the Consolidated Orders of the Local Government Board. Applications and testimonials to be sent to Mr. Henry Bedford, Clerk to the Guardians, on or before June 11.

Brompton Hospital for Consumption.—Resident Clinical Assistant. Applications, with testimonials, to be sent in on or before June 3. Further particulars may be obtained at the Hospital.

Cancer Hospital.—Surgeon. Candidates must be registered Members of the Royal College of Surgeons of England, practising only as consulting Surgeons. Applications, with testimonials, addressed to the Chairman of the Weekly Board, at 167, Piccadilly, to be sent in on or before June 4.

East London Hospital for Children and Dispensary for Women, Ratcliffe-cross.—Visiting Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, or F.R.C.P. Edinburgh or Dublin, or Graduates in Medicine of a British University, or of the Universities of Paris, Vienna, Berlin, or other universities approved by the General Medical Council, and be legally qualified to practise Medicine in England. Applications to be sent to the Secretary, at the Hospital, before June 17.

Essex Lunatic Asylum, Brentwood.—Second Assistant Medical Officer and Dispenser. Candidates must be Licentiates of the Apothecaries'

Company and possess a Surgical qualification. Applications, stating former occupation, to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood.

Evelina Hospital for Sick Children, Southwark-bridge-road, S.E.—Registrar. Candidates must possess one qualification. Applications with testimonials to be sent to the Managing Committee, at the Hospital, on or before June 3.

Gloucester Dispensary.—Dispenser, registered under the Pharmacy Act, and otherwise duly qualified. Apply to George Whitcombe, Esq., Gloucester, from whom further particulars may be obtained.

Infirmary for Consumption and Diseases of the Chest, 26, Margaret-street, Cavendish-square.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

Leeds Union.—Medical Officer for the Workhouse and Industrial School. Candidates must possess the qualifications laid down by the Local Government Board. Applications with testimonials to be sent on or before June 12.

Leominster Union.—Medical Officer for the Workhouse and No. 1 District. Applications, with testimonials, to be sent on or before June 7, to Mr. Edwin Gregg, Clerk to the Guardians, Leominster.

Liverpool Northern Hospital.—House-Surgeon. Candidates must possess a Medical and a Surgical qualification from one or more British Colleges or Institutions recognised under the Medical Act. Applications and testimonials to the Chairman of the Committee not later than June 15.

London Fever Hospital, Liverpool-road, Islington.—Resident Medical Officer. Applications with testimonials to be sent to the Secretary, on or before June 11.

Longtown Union.—Medical Officer. Candidates must be duly qualified in accordance with the regulations of the Local Government Board. Applications to be sent on or before June 1, to Mr. C. B. Hodgson, Clerk to the Guardians, Carlisle.

Middlesex Hospital.—Lectureship on Psychological Medicine. Applications must be sent to the Dean of the Hospital not later than June 18.

North Riding Infirmary, Middlesborough-on-Tees.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

Ongar Union, Essex.—Medical Officer. Candidates must be duly qualified. Applications with testimonials to be sent to Charles Mott, Clerk to the Guardians, Chipping Ongar, on or before eleven o'clock on June 4.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Bury St. Edmunds Incorporation.—The Fourth District is vacant; salary £30 per annum. The Fifth District is vacant; salary £30 per annum. The Workhouse is vacant; salary £30 per annum.

Ongar Union.—Mr. Wm. Gilmour has resigned the First District; area 13,730; population 3003; salary £105 per annum.

Thingoe Union.—The Second District is vacant; area 14,780; population 3552; salary £84 per annum.

West Ham Union.—Mr. James C. Foley has resigned the Second District; population about 1100; salary £80 per annum.

APPOINTMENTS.

Ampthill Union.—Alfred R. Lee, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., to the Silsoe District.

Aysgarth Union.—Alfred Baker, M.R.C.S. Eng., L.R.C.P. Edin., to the Workhouse. Joseph Thompson, M.R.C.S. Eng., L.R.C.P. Edin., to the Hawes District.

East Retford Union.—John O'Dwyer, L.R.C.S. Ire., L.R.C.P. Edin., to the Scrooby District.

Guildford Union.—Thos. C. Eager, M.R.C.S. Eng., L.R.C.P. Edin., L.S.A., to the Woking District.

Manchester Township.—George A. Kenyon, B.M. Univ. Lond., L.R.C.P. Lond., M.R.C.S. Eng., as Assistant Medical Officer at the Crumpsall Workhouse.

Skirlaugh Union.—Wm. H. Browne, L.R.C.P. Edin., L.R.C.S. Edin., to the Aldborough District.

Messrs. Cole and Neighbour, the Vaccination Inspectors to the Holborn Union, have respectively had their salaries raised from £60 to £70 per annum.

The appointment of Mr. John Browne as Vaccination Officer for Islington at a salary of £120 per annum has been approved by the Local Government Board.

Two of the local (Dublin) papers—the *Freeman's Journal* (of Friday) and the *Irish Times* (of Saturday)—have it that Dr. Stokes is to be made a baronet.

The mortality returns for the City are still below the average for the corresponding period of the last ten years, and indicate a satisfactory state of the public health.

The Council of the French Society of Succour to the Sick and Wounded in the late war have presented Mr. J. Robert Walker, of Clifton-gardens, Maida-vale, with a diploma and bronze cross for his services at Beaumont, Saarbrück, Metz, etc.

The Halifax Infirmary is to be enlarged at a cost of £3300, and when completed will give room for twenty-eight additional beds.

The Board of Guardians of the Kilmallock Union, co. Limerick, have raised the salary of Mr. Daniel Riordan, Medical Officer for the Hospital Dispensary District, from £100 to £120 per annum.

The will of Dr. Thomas Barnes, of Bunker's-hill, Carlisle, has been proved under £90,000.

The Military Medical School at Val-de-Grâce.—Professor Laveran has been appointed Director of Val-de-Grâce, in the place of the late Professor Michel Lévy.

Small-pox in Dublin.—Since the second week in March, 1871, when the first fatal case of the present epidemic of small-pox occurred in Dublin, 1168 deaths from the disease have been registered in that city up to May 18, 1872. Of this number 1080 have been registered since November 18 last, within a period of exactly six months.

Royal Dublin Society.—One of the afternoon scientific lectures was delivered in the lecture-room of the Society on Saturday last, by Mr. C. R. C. Tichborne, Fellow of the Chemical Society of London, whose researches in chemistry are so widely known and appreciated. The subject of the lecture was "Decomposition and Dissociation." Chemical affinity was explained as being subject to the influence of the forces of electricity, heat, and gravity. A "decomposition" was the result of the action of one or more such forces on a compound molecule, and by this action a new substance was formed. A series of experiments, wherein typical decompositions were effected, illustrated this part of the lecture. The term "dissociation" was applied to processes which were in reality only stages of decomposition. The little that was known of the dissociation of molecules in solution was due to the lecturer's own investigations, while gaseous dissociation had attracted more attention on the Continent.

Hospital Sunday.—The vicar and churchwardens of St. Matthew's, City-road, have decided to establish a Hospital Sunday. The offertories on the Second Sunday after Trinity will this year be given to the Royal Hospital for Diseases of the Chest, City-road, and the North-Eastern Hospital for Children—institutions which confer much benefit on the poor of the parish and neighbourhood.

The Irish Medical Association.—The annual meeting and dinner are announced to take place in the Albert Hall of the Royal College of Surgeons, Dublin, on Monday next, June 3. Several matters of deep interest to the Profession generally, and to Poor-law Medical Officers in particular, are to be brought under consideration. Among these may be mentioned the question of improved sanitary legislation and the suggested formation of a Conjoint Examining Board.

Professor Holmes.—The following is the programme of the Professor's first three "Lectures on the Surgical Treatment of Aneurism in its various forms," to be delivered at the Royal College of Surgeons on Monday, Wednesday, and Friday, at 4 p.m., commencing on Monday, June 3, 1872, viz.:—Lecture I. (June 3), *Thoracic Aneurisms.*—Introduction. Propositions intended to be established in these lectures. Thoracic aneurisms are legitimate subjects for Medical and Surgical treatment. The Medical or internal treatment of aneurism. This plan should be first tried in all cases of thoracic and abdominal aneurism. Brasdor's operation. Theoretical reasoning by which its adoption has been recommended. Pathological facts showing the effects of spontaneous distal obliteration of arteries in innominate aneurism. Instance of spontaneous cure from distal impaction of clot in the carotid. Its exact analogy with a case of distal ligature of the carotid, by Dr. Wright, of Montreal. Mr. S. Lane's and Sir W. Fergusson's cases of distal ligature of the common carotid. Effects of spontaneous distal obliteration of the subclavian artery in innominate aneurism. In such cases the distal ligature of the carotid may be trusted to produce complete obliteration of the sac. Lecture II. (June 5), *Thoracic Aneurisms* (continued).—Pathological facts showing the effect of distal obliteration of arteries in aortic aneurism. Mr. Guthrie's objections to the distal operation examined. Review of cases of distal operation in thoracic aneurism:—1. Four cases of successive distal ligature of carotid and subclavian. Cure in Fearn's case. 2. Simultaneous double distal ligature. Two cases in which the operation was carried out strictly on Brasdor's method. Six cases in which Wardrop's plan was adopted. Hobart's case, where union is said to have taken place in the first part of the subclavian after ligature. Heath's case of temporary recovery. Case in which the arteries were tied with carbolised catgut. 3. Cases of distal ligature of the carotid only. *a.* Eleven cases in which the aneurism was innominate. Wright's case, where cure was almost complete. *b.* Seven cases of mixed innominate aneurism. Cure in Evans's and Morrison's cases. *c.* Four cases of ligature of the right carotid in aortic aneurism mistaken for innominate. *d.* Seven cases of ligature of the left carotid in aneurism of the aorta. Beneficial effect in many

of these latter. Case under the care of Dr. Cockle and Mr. Heath. 4. Two cases of distal ligature of the third part of the right subclavian in innominate aneurism. Lecture III. (June 7), *Thoracic Aneurisms* (continued).—Conclusions justified by present experience as to the applicability of Brasdor's operation in innominate aneurism. Can Brasdor's method be applied in its integrity, by the ligature of the first part of the subclavian, along with or after that of the carotid? This depends on the possibility of securing an artery so as to obliterate without dividing it. This has been attempted by temporary ligature, the *presse-artère* or acupressure, and by silver ligature. None of these, except the *presse-artère*, has as yet afforded definite proof of success, and this only exceptionally. Carbolised catgut ligature. History of the use of catgut for this purpose. Reasons of its general failure in the hands of Astley Cooper, Porta, etc. General success of the carbolised catgut ligature in securing rapid union of the deep parts of the wound. Preparation showing ligature of the carotid and subclavian arteries with this substance successfully, and with no division of the continuity of either vessel. If this result can be uniformly secured, the subclavian might be tied in its first part. Conclusions as to the applicability of the distal operation in the treatment of aortic aneurism. Probable reasons of its beneficial effect in this form of aneurism. *Galvano-puncture in Thoracic Aneurism.*—General considerations on the admissibility of this method of treatment for aneurism in general.

Royal College of Surgeons.—At the pass examinations of members for the Fellowship of the College, which were brought to a close on Saturday last, ten candidates were successful and six were referred to their Professional studies for twelve months. One candidate, who passed in Surgery, will be admitted a Fellow when qualified in Medicine; the others had either passed in Medicine for the Membership of the College or had Medical degrees from other institutions. The following were the questions on Anatomy and Physiology submitted at the primary "written":—1. Describe the operation of excision of the upper jaw, and state for what disease this operation may be required. 2. Describe the formation, spontaneous evacuation, and healing of a scrofulous abscess, giving an explanation of the pathological phenomena attending each stage of its progress. 3. Give the symptoms, causes, and treatment of acute and chronic glaucoma, including the appearances usually presented under the ophthalmoscope. 4. In a case of compound dislocation of the ankle, state the local and general or constitutional conditions of the patient and the external circumstances that would guide you in determining upon the propriety of amputation, and as to the site at which it should be performed. The following were the questions on Pathology, Therapeutics, and Surgery at the "pass," viz.:—1. Describe the course and relations of the nerves which supply the following muscles, tracing them from their origin to the part of the muscle at which they enter: Subclavius, serratus magnus, obturator internus, pectineus, popliteus, and aconeus. 2. Describe the exact relations and structure of each bronchus, of its subdivisions, and of the air-cells. State what nerves accompany the bronchi in their distribution, and their several functions. 3. Describe the development of the mammalian heart, and give an account of its construction in the different classes of vertebrata. 4. Describe the form and dimensions, in its different parts, of the vertebral canal; enumerate its contents; and give a description of the structure and uses of the membranes of the spinal cord.

Health of Scotland.—The Registrar-General's report for the quarter ending March 31 last states:—Of the zymotic class of diseases, small-pox was the most fatal, the deaths therefrom numbering 461 in January, 319 in February, and 244 in March. During former epidemics of this disease the highest mortality has generally occurred in either January or February, depending on which was the coldest month. It is satisfactory to find that the mortality of this loathsome disease has been steadily on the decline since January, having attained its maximum mortality during that month. In October the deaths therefrom were 80, in November 157, and in December 354. Fever, in like manner, has been diminished with the advent of milder weather, seeing the deaths numbered 119 in January, 94 in February, and 81 in March. The deaths from measles diminished from 50 in January to 15 in March. Those from scarlatina were 94 in January, 80 in February, and 72 in March. Diphtheria has diminished in greater proportion than scarlatina, for the deaths, which were 45 in January, were only 27 in February, and 26 in March. The deaths from hooping-cough, like those from consumption, had, however, rather increased with the advance of the season, seeing that the 160 deaths in January increased to 191 in March; but the increase of bronchitic complications, caused by the biting easterly and northerly winds, probably accounts for the increase. The deaths from erysipelas notably diminished with the advance of the season, 17 deaths having occurred in January, 10 in February, and 7 in March. Year after year it is observed that the deaths from consumption are not highest in the coldest months, but in those during which the northerly and easterly winds are the prevalent aërial currents. Correcting for difference in length of days, this was distinctly noticed during the past quarter, seeing that 300 deaths therefrom occurred in January, 319 in February, and 323 in March. Diseases of the brain were most fatal during the coldest month, seeing that they caused 241 deaths in January, 222 deaths in February, and 193 in March. Diseases of the heart caused 109 deaths in January, 108 in February, and 118 in March. Diseases of the digestive organs were most fatal in February, having caused 165 deaths in January, 176 in February, and 135 in March. Debility from premature birth caused 126 deaths in January, 109 in February, and 107 in March. Old age, without specific disease, caused 112 deaths in January, 99 in February, and 101 in March. Deaths from violence numbered 117 in January, 75 in February, and 89 in March.

The Seaside.—Among the loungers at the sea-side there is a broad distinction to be drawn between those who are taking whole holidays and those who are only taking half-holidays. Those who mix up pleasure with their work have to mix up work with their pleasure. If business, books, and papers are not absent from their minds, they only catch fearful because fugitive joys. To many, what sensations of delight and unalloyed pleasure are recalled by the words—"at Ilfracombe." There still remains the reinvigorated constitution, and many happy memories of freshening breezes, dashing seas, and a rock-bound coast. In the great palace by the shore there one meets with what is so much wanted at the seaside—cheerful society. You hear all that is going on, the various places to pic-nic, boat, ride, drive, or walk along the picturesque shore. There is a reading-room for the politically inclined, billiards for those whose legs are not tired after the day's excursion, a noble *salle-à-manger* in which appetites may be appeased, and a delightful drawing-room, with the charms of conversation and music, varied with an occasional dance. In fine, a visitor to to the Ilfracombe Hotel will have many a *souvenir* on which to dwell with grateful and pleasing remembrance.—*Post*, May 29.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Dr. Williams's Lecture is unfortunately delayed this week. Mr. Bryant's Lecture is in type.

Mr. Maccabe's performances at the Charing-cross Theatre, in King William-street, are well calculated to stimulate the digestive organs, dispel melancholy, and set the diaphragm and respiratory muscles in a state of agreeable titillation.

Mr. Samuel Welch, Stanstead.—We have carefully perused the account of the inquest held at Stanstead railway-station, and really cannot find any fault either with the mode in which the inquest was conducted, or the verdict arrived at by the jury. The evidence of Mr. Haynes we consider to have been fair and unobjectionable. If Mr. Welch could have given any valuable information to the court and jury, it was his duty to have presented himself for examination. The coroner, we believe, would not have objected to it. If Mr. Welch has just cause to complain, we should be glad to know on what ground. As the sworn evidence presents itself to us we can discover no such ground.

Protection for Medicine.'

To the Editor of the Medical Times and Gazette.

Sir,—I have read with much interest your article on "Irregular Practice" in your issue of May 25. It is surely time for the Profession, as a body, to agitate for protection, as well for the public as for itself, against the irregular practice that now prevails so largely. A better time than the present could not well occur, for it is likely that before long a general election will take place, and pressure might be brought to bear upon candidates for seats in Parliament to support a Bill containing the requisite provisions.

It is very unjust that qualified Medical men should be left entirely without legal remedy against such a state of matters as at present exists. No man is allowed to practise as a barrister or as a solicitor in the courts of law without due licence. No man is allowed even to sell drugs without being duly qualified. If he does, he can be proceeded against, convicted on proof, and prevented from repeating the offence. In these cases the State carries out the bargain which it has made with the parties; but though it has virtually made the same bargain with those who, at large expense of time and money, purchased its permission to practise Medicine, it allows

any Jack, Tom, or Harry who pleases to play with the health and character of the subject; and when such an one comes before a court of law, as in the case of Thomas, he leaves the court free as ever, to continue and increase, if he is able, the "considerable practice" which he avowed himself to have.

A most painful case of the same kind occurred in my own experience. An elderly gentleman foolishly consulted a druggist at the commencement of a cancerous affection, of which he eventually died. The druggist pronounced it venereal, and treated him most vigorously with mercury for syphilis. His relatives somehow heard of the judgment that had been pronounced, and a most painful family estrangement, lasting for many months, was the result, of which, when after long concealment I became aware, I was able, to the intense relief of all, to set at once and completely at rest. A first year's student could not have mistaken the case.

If the law does not soon come to the aid of the Profession, qualified Medical men will ere long be rare, for those now in practice will not only not enter any of their own sons to the study of Medicine, but will also warn their friends against the folly of doing so. I am, &c.,

May 27. AN OLD M.D.

CORRIGENDUM.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Be good enough to correct an error in the abstract of my paper on "A Chapter in the History of Cholera." Line 4 from the end, read "*minimum*" for "maximum," in the sentence "came to a maximum when it was in aphelion." I am, &c.,

May 29. B. G. JENKINS.

COMMUNICATIONS have been received from—

Dr. BOGGS; Dr. JOHN DUNCAN; Mr. J. CHATTO; Dr. J. R. HARDIE; Dr. EUSTACE SMITH; Mr. T. M. STONE; Mr. RICHARD QUAIN; Professor FLOWER; Mr. PLAXTON; Dr. LOEWENBERG; Mr. F. T. PROCTER; AN OLD M.D.; Dr. GOODMAN; Dr. BAKEWELL; Dr. PORTER SMITH; Dr. HUTCHISON; Dr. ROGERS; Dr. MASTERS; Dr. R. C. R. JORDAN; Dr. SANSOM.

BOOKS RECEIVED—

Our Lord's Miracles of Healing, by the Rev. T. W. Belcher, M.D., M.A.—The Influence of Vaccination, Age, Sex, and Occupation on the Mortality in Small-pox, by Robert Grieve, M.D.—As Regards Protoplasm, by James Hutchinson Stirling, F.R.C.S., L.L.D.—First Annual Report of the Committee of Stockwell Fever Hospital—An Exposition of Fallacies in the Hypothesis of Mr. Darwin, by C. R. Bree, M.D., F.Z.S.—Report on the Small-pox Epidemic as observed in the Hardwicke Hospital from April 1, 1871, to March 31, 1872, by R. D. Lyons, M.B., T.C.D., M.R.I.A.—Annual Report of the Village Hospital, Hambrook—Annual Report of the Broadmoor Criminal Lunatic Asylum—Annual Report of the Royal Edinburgh Asylum for the Insane—Introduction to Palæontological Botany, by Dr. J. Hutton Balfour—Guide to Trefriw and the Vale of Conway Spa, by John W. Hayward, M.D., second edition—On the Treatment of Carbuncle, by J. Murray, M.A., M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Nature—Journal of the Scottish Meteorological Society—Medical Archives, No. 3—Medical Press.

APPOINTMENTS FOR THE WEEK.

June 1. *Saturday (this day).*

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

ROYAL INSTITUTION, 3 p.m. Prof. Roscoe, "On the Chemical Action of Light."

3. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ANTHROPOLOGICAL INSTITUTE, 8 p.m. Meeting.

ROYAL INSTITUTION, 2 p.m. General Monthly Meeting.

4. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

ROYAL INSTITUTION, 3 p.m. Mr. E. B. Tylor, "On the Development of Belief and Custom amongst the Lower Races of Mankind."

5. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1¼ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1¼ p.m.

OBSTETRICAL SOCIETY, 8 p.m. Dr. Matthews Duncan, "On Long Delay of Labour after Discharge of Liquor Amnii." Dr. Aveling, "On Post-mortem Delivery." And other Papers.

ROYAL MICROSCOPICAL SOCIETY, 8 p.m. Mr. Chas. Cubitt, "Remarks on the Homological Position of the Members constituting the Thecated Section of the Rotatoria." Mr. Isaac Roberts, "On a Micro-pantograph."

6. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3 p.m. Dr. Tyndall, "On Heat and Light."

7. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 9 p.m. Dr. Odling, "History of Ozone."

VITAL STATISTICS OF LONDON.

Week ending Saturday, May 25, 1872.

BIRTHS.

Births of Boys, 1162; Girls, 1096; Total, 2258.
Average of 10 corresponding weeks, 1862-71, 1979·5.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	631	571	1205
Average of the ten years 1862-71	664·9	611·6	1276·5
Average corrected to increased population	...	...	1404
Deaths of people aged 80 and upwards	...	...	37

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	2	1	1	13	...	...	1	...
North ...	751668	22	13	4	2	16	...	2	1	1
Central ...	333887	1	4	...	...	9	1	1	1	2
East	638923	13	9	5	...	18	...	3	2	2
South	966132	15	13	10	2	18	...	2	2	4
Total	3251804	54	41	20	5	74	1	8	7	9

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·762 in.
Mean temperature	49·8°
Highest point of thermometer	66·6°
Lowest point of thermometer	32·6°
Mean dew-point temperature	40·9°
General direction of wind	S.W.
Whole amount of rain in the week	0·05 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, May 25, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending May 25.	Deaths Registered during the week ending May 25.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·1	2258	1205	66·6	32·6	49·8	9·89	0·05	0·13
Portsmouth ...	115455	12·1	84	37	70·8	32·0	47·8	8·78	0·22	0·56
Norwich	81105	10·9	59	29	66·0	34·0	47·1	8·55	0·26	0·66
Bristol	186428	39·8	118	84	68·3	39·9	46·7	8·16	...	...
Wolverhampton ...	69268	20·5	56	35	59·8	30·8	45·3	7·39	0·41	1·04
Birmingham ...	350164	44·7	278	139	59·5	32·7	45·4	7·44	0·70	1·78
Leicester	99143	31·0	56	49	66·2	30·5	47·1	8·39	0·23	0·58
Nottingham ...	88225	44·2	65	35	63·6	29·5	45·6	7·55	0·13	0·33
Liverpool	499897	97·9	321	273	59·6	34·8	47·8	8·78	0·26	0·66
Manchester ...	352759	78·6	222	199	64·8	31·0	46·4	8·00	0·08	0·20
Salford	127923	24·7	93	57	65·5	30·0	44·9	7·17	0·16	0·41
Oldham	84004	20·2	55	33	...	...	...	...	...	...
Bradford	154720	23·0	135	73	61·0	35·0	47·9	8·83	0·05	0·13
Leeds	266564	12·4	221	150	64·0	33·0	46·7	8·16	0·00	0·00
Sheffield	247847	10·9	182	115	63·0	30·1	46·6	8·11	0·00	0·00
Hull	124976	35·1	101	60	63·0	30·0	46·4	8·00	0·19	0·48
Sunderland ...	100665	30·4	72	48	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	76	61	59·0	40·0	45·5	7·50	0·37	0·94
Edinburgh	205146	46·3	124	118	57·0	32·0	41·5	6·95	0·30	0·76
Glasgow	489136	94·8	349	266	59·9	32·0	46·5	8·05	0·77	1·96
Dublin	310565	31·9	172	178	61·9	30·8	49·3	9·61	0·35	0·89
Total of 21 Towns in United Kingd'm	7393052	34·0	5100	3241	70·8	29·5	46·7	8·16	0·25	0·63

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·76 in. The highest was 30·11 in. at the end, and the lowest 29·50 in. at the beginning of the week.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2456 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

BRITON
MEDICAL AND GENERAL LIFE ASSOCIATION.

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Every practical system of Life Assurance business transacted at moderate rates. The Association issues "Special Settlement Policies" under the provisions of the "Married Women's Property Act, 1870," whereby a sum of money may be secured to the Wife, or Wife and Family, of the Assured Member without the risk of such provision becoming subject to the claims of creditors.

New Premiums for the year 1871 ... ... £20,191 7 9
Total Income from Premiums, Interest, and other miscellaneous receipts 245,824 18 8

The next Valuation, with a view to the declaration of a further Bonus, will be made at the close of the present year.

Detailed Reports, Prospectuses, and every information may be obtained on application, personally, or by letter addressed to the Actuary and Secretary of the Company, at its Chief Offices, 429, Strand.

Special advantages allowed to Members of the Medical Profession upon effecting or introducing Assurances.

HUNGARIAN WINES.

Having for the last ten years devoted all my energies and means to introduce to the favourable notice of the British Public the pure Wines of Hungary—my native country—I gratefully acknowledge that my efforts have been rewarded by a certain amount of present success, with a prospect of its further development under a system of honest and fair dealing—the only legitimate means of upholding and extending the reputation these Wines have hitherto attained.

But I find myself at the same time compelled to warn the Public that certain Firms in London, attracted by my success, do not scruple to imitate my labels, show-cards, price-lists, price-placards, and even the distinctive names of my Wines, and under these disguises to foist upon too credulous consumers an inferior article, consisting partly of wines rejected by me as unfit to be supplied to my customers; one Company, falsely representing itself as Purveyor to the Emperor of Austria, going the length of claiming to have obtained the first prize medal at the International Exhibitions—the last of which was at Paris in 1867, while the existence of the Company itself only dates from January, 1870.

I beg, therefore, hereby respectfully to give notice that my Business has no connexion whatever with any of these Firms or Companies, and that I can only guarantee the pure quality of Hungarian Wines bearing my own label, and having the corks branded with my name in full.

In illustration, I beg to annex copy of a letter officially communicated to me by the Hungarian Government, through the Imperial Royal Consulate-General for Hungary in London, having reference to one of the advertising Firms above alluded to.

I am, respectfully yours,

7, Mincing-lane, London, E.C., December, 1870. MAX GREGER (from Hungary).

No. 24411-842.—From the Royal Hungarian Ministry for Agriculture, Commerce, and Trade, to the Honourable Mr. Schaeffer, Aulic Councillor, Imperial Royal Hungarian Consul-General in London.—In reply to your Honour's further inquiry concerning a certain advertising Society in London, I have to observe that no Society of Exporting Wine Growers of such description is known in the country, and that no such Company obtained the First Prize Medal at the International Exhibition, nor are they the direct purveyors to the Emperor of Austria; and that, according to information obtained, the Society signing under such firm in London is formed only of one individual, a former *employé* of the house of Max Greger, of high repute in the Wine Trade, and likewise honourably known throughout Hungary.—The Minister, SZLAVY, m.p.

Pest, December 10th, 1870.

Natural Mineral Waters of Vals, Vichy, Carlsbad, Seltzer, Kissengen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs; also the Artificial Mineral Waters prepared by Dr. Struve and Co. at the Royal German Spa, Brighton; R. Ellis and Son, Ruthin; and the Natural Bromo-Iodine Water of Woodhall Spa, Lincolnshire.—Agents, W. BEST and SONS, 22, Henrietta-street, Cavendish-square, London, W.

FLOUR.

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ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE

LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Continued from page* 533.)

PART IX.

SPASMODIC ASTHMA.

Character and Pathology. Experiments proving the Irritability of the Bronchi. Functions of the Bronchial Muscles. Effects of Drugs. Causes and Consequences of Bronchial Spasm. Asthmatic Bronchitis. Bronchial Glandular, and Membranous Induration. Frightful Symptoms of Asthma—Why not Dangerous. Treatment very Successful in Simple Spasmodic Asthma. Treatment of Complications. Change of Air.

I HAVE now to call your attention to a group of affections which go under the title of *asthma*. This word is commonly used as synonymous with dyspnœa, or difficult breathing; but it is more convenient and practical, as well as correct, to restrict it to those kinds of difficult breathing which are accompanied by audible *wheezing*. Here is at once a great practical distinction from the dyspnœa of pleurisy, of pneumonia, of diseases of the heart, and of diseases of the blood (anæmia and toxæmia)—these are all *panting*, or *gasping*, with breath short and frequent, but with little or no wheeze. The dyspnœa of *asthma*, on the other hand, is essentially *wheezy* and *prolonged*, affecting the inspiration, or the expiration, or both. This is most distinctly witnessed in spasmodic asthma and pulmonary emphysema; but it applies more or less to severe bronchitis and bronchial catarrh, which carry with them more or less of the asthmatic wheeze.

The simplest, as well as the most characteristic variety of these, is the purely spasmodic asthma. A person subject to this may be attacked suddenly on entering a close or dusty room, on inhaling the fumes from a stable, the odour of ipecacuanha, or other smells in peculiar cases; or, more commonly, he awakes in the middle of the night with a feeling of oppression approaching to suffocation—referred by some to the throat, by others to the sternum, by others to the epigastrium—obliging the patient to sit up in bed or in a chair, with the elbows rested on the knees, the shoulders elevated, and the head bowed forward, but all labouring to the utmost in strong prolonged efforts of inspiration and expiration. This painful struggle for breath may last from a few minutes to several days, according to the severity of the paroxysm; and frightful as it seems to witness, and distressing to the patient, yet it is not dangerous; sooner or later the tight breath is relaxed, cough and expectoration sometimes accompanying its relaxation.

Seeing how violently all the muscles of inspiration and expiration partake in the struggle of a severe paroxysm of spasmodic asthma, we cannot much wonder at the notions of older writers on the subject (Bree and others), that the disease depended on an excessive and convulsive action of all these muscles. Laennec first pointed out the true pathology of asthma in tracing it to a spasmodic contraction of the bronchial tubes, which so much impedes the ingress and egress of air in respiration as to call for excessive and violent action of the respiratory forces to effect it. In this temporary constriction of the bronchial tubes we see the immediate cause of the difficult breathing; and this, too, is the cause of its most characteristic sign—the loud wheezing, whistling, piping, and cooing sounds which attend the paroxysm.

The correctness of Laennec's view of spasmodic asthma had, however, been called in question by several writers, who opposed to it the very daring assertion that the bronchial tubes do not really possess muscularity. The supposed muscular fibres, which had been demonstrated by Reisseissen, were declared not to be muscular at all, but merely elastic, and therefore could not be the seat of spasmodic contraction. To settle this question, about twenty years ago I made a series of experiments on animals, and they proved beyond doubt not only the muscularity of the bronchial fibres, but also the kind and degree of irritability which they possess. Under the influence of a galvanic, mechanical, or chemical stimulus the circular fibres of the bronchi contract readily but slowly, and gradually relax when the stimulus is withdrawn. The contraction is more tardy than that of the œsophagus, but more prompt than that of the arteries, and relaxation does not follow for some minutes after. Like other muscular contractility, it becomes exhausted after continued stimulation, and it is recovered by a period of rest.

Although it has been generally admitted that my experiments have clearly proved the muscular contractility of the bronchial tubes, yet from the remarks of recent writers on the subject it appears to me that the physiological offices of this property have not been generally understood. Thus it has been supposed that the bronchial muscles contribute to the rhythmical process of expiration; but if they do so at all it can only be to a slight extent, as their movement is much slower than that of ordinary respiration, besides which it appears to be limited to the larger and middle-sized tubes, and does not extend to those of smallest size. A galvanic current caused little or no contraction when passed through a lobe within an inch or two of its margin; but the contraction was marked when the current was passed along any of the tubes of the size of a small crowquill upwards. I cannot, therefore, concur in the notion propounded by Dr. Gairdner in one of his able papers, that the finest bronchi have a peristaltic or vermicular motion like that of the intestines, and that this is the chief means by which fluids are expelled from these tubes. It is probable that ciliary motion contributes to this end, but the expulsion of mucus and other fluids from the bronchial tree is mainly effected in the manner which I pointed out more than twenty years ago—by the rapidly increasing velocity with which the air in expiration passes from the pulmonary cells to the narrower converging bronchi, and carries with it any loose liquid in its way. The air in entering the lungs passes with decreasing velocity and force as it spreads into the minute tubes and cells, the combined area of which vastly exceeds that of the large branches and trunk of the bronchial tree. On its return in expiration this is reversed; the motion is more rapid and forcible as it converges towards the trachea and glottis, where the process is brought to its consummation in special efforts of expectoration and coughing. This draining operation of the expiratory act is promoted on the one hand by increasing the force of the act by muscular effort; and, on the other, by a moderate contraction of the tubes, which augments the velocity and sweeping power of the air in passing through them. This contraction is effected by the bronchial muscles, which thus assist in the process of clearing the tubes. But if these muscles act in excess, they render the passage too narrow both for free expiration and for expectoration; and this is just what occurs in the asthmatic spasm, which renders these processes slow and difficult. This is the view of the function of the bronchial muscles which my experiments led me to entertain, and which I published and taught in my lectures more than twenty years since. Dr. Hyde Salter, in his late able and elaborate work on asthma,(a) proposes a like opinion, and suggests that the bronchial muscles may also be useful in impeding the entrance of irritating matters into the lungs.

But the most interesting fact discovered by my experiments, with regard to this bronchial contractility, was, that it is influenced differently from that of other muscles by various poisonous or medicinal agents.(b) Thus, hydrocyanic acid did not impair it at all, opium and morphia very little, conium and aconite a little more, but belladonna and stramonium almost destroyed it; so that in animals poisoned by these drugs the bronchi showed scarcely any signs of contractility when stimulated. In animals poisoned with strychnia the bronchi seemed permanently contracted, so that a stimulus had no further effect. This is another proof of the antagonistic action of strychnia and belladonna. Now, it is well worthy of remark that the action of these several drugs on the bronchial tubes is quite different from what it is on the œsophagus and intestinal canal. Thus, in animals poisoned with belladonna the œsophagus was as irritable as ever; in those poisoned with opium, on the other hand, the contractility of the alimentary canal is much impaired. This fact has led me to give belladonna in preference to opium in cases of intestinal colic with constipation, and with a far more satisfactory result. I think this mode of investigation worthy of attention as a means of extending pathological and therapeutical knowledge. We want a more elementary study of the operation of medicines, an examination of the effect of simple drugs on the functions of elementary tissues, and on the constituents of the blood; for

(a) Dr. Hyde Salter on "Asthma," 1860, p. 55.

(b) *Transactions of the British Association for the Advancement of Science.* 1840. Read at the meeting at Glasgow.

without this we cannot hope to understand the operation of complex medicines on the whole frame.

To return to the pathology of spasmodic asthma: there is, then, no reason to doubt that a continued contraction or tonic spasm of the muscular fibres of the bronchi—constriction of these tubes—is the essential characteristic of this disease. No doubt the contraction of the bronchial, as of other muscles, is controlled by nervous influence; and many of the phenomena of spasmodic asthma exemplify the reflex action of the nervous system in exciting the spasm—for example, mental agitation or irritation of the stomach by indigestible matter will often bring on a fit of asthma—but the nervous element is often not obvious in the clinical observation of the disease. Thus, spasmodic asthma often affects persons, not otherwise nervous, when they inhale peculiar smells or when they catch cold; and in my experiments I found that irritating the eighth nerves had little effect on the contraction of the bronchial muscles, which, on the contrary, readily answered to direct irritation. But it is open to further inquiry whether, like the heart and arteries, these contractile fibres are not more influenced through the sympathetic than through the spinal nerves.

However induced, this constriction of the tubes renders the ingress and egress of air to and from the lungs difficult and noisy, so that the process of breathing becomes very laborious and prolonged; all the muscles of inspiration, ordinary and supplementary, are called into violent action, and so the struggle goes on until the spasm is relaxed. If this takes place soon the attack ceases, and there is no remaining disorder; but if the spasm lasts long other disorder ensues in the bronchial membrane and other parts concerned. They become congested from the imperfect and laborious breathing, and this congestion causes increased and disordered secretion; hence cough and expectoration of a catarrhal character commonly accompany or follow a prolonged fit of asthma. So, likewise, if these asthmatic attacks recur frequently, they tend to produce more permanent congestion and thickening of the air-passages, which continue in the intervals between the attacks, and thus the disease passes from the paroxysmal or intermittent asthma into a more habitual or constant asthma, with which is associated more or less of the general dilatation of the air-cells, called by Laennec emphysema of the lungs. I will allude to this again afterwards.

Spasmodic asthma, or bronchial spasm, may originate like a common cold or bronchial catarrh, or from exposure to the effluvia of a hayfield, of a stable, of a close room, of ipecacuanha, or of other dust; or it may arise from some unknown impurity or peculiarity in the air of certain places; or it may be induced by indigestion, by gouty or other irritating matters in the blood, or by mental emotion. The kind known under the term of "hay-asthma" is very common, and I have no doubt is excited by pollen-germs, or some effluvium from flowering grass and other vegetables. It is more distinctly catarrhal in nature, being often preceded or accompanied by sneezing, coryza, and other symptoms of membranous irritation. But in whatever way asthma may have its origin, when it has once occurred it is very apt to return again, and may be re-excited by any of the causes just mentioned; and, generally speaking, the more frequently it recurs, the longer and more severe are the attacks, and the more likely to leave the breathing embarrassed in the intervals.

But you may well ask, further, "What is the peculiarity that makes persons asthmatic?"—that is to say, that makes the causes above mentioned excite in them contraction of the bronchial muscles, instead of causing the more common effects resulting from the operation of these causes on persons in general. We may reply, "A peculiar irritability of these muscles or of the nerves exciting them." But this is only an expression of the fact, and does not explain why these muscles should be more irritable in asthmatic persons than in others. This subject requires more investigation. I do not feel that I can answer it fully, so as to include all instances; but I think that I have traced in several cases signs of a slight structural peculiarity which may give to the bronchial muscles an unusual liability to spasm. This may be designated under the general term of *a slight induration or thickening at or near the root of the lungs*. In a considerable number of those subject to attacks of asthma, even at an early period, when they are few and far between, I have found, in the absence of the paroxysms, more or less of whiffing or tubular sound in one or both interscapular spaces, generally most in expiration. This may be from enlarged bronchial glands, which are of common occurrence in children, often accompanying enlarged tonsils; or it may be from interstitial deposit under the mucous membrane at or below the bifurcation of the trachea; or it may be from slight partial induration of the pulmonary texture, such as that resulting from an old tuberculous lesion, whether in the form of dwindled and contracted tubercle or calcified induration, but of very limited extent.(c) Either of these lesions, trifling as they may be in extent, may increase the irritability of the bronchial tubes, not only by mechanical irritation, but by partially obstructing the circulation underneath the tubes, and thus throwing more blood to the muscular fibres and mucous membrane. It is in favour of this view of the pathological cause of the asthmatic spasm that such changes to an increased extent certainly do occur after often-repeated and severe attacks, and operate as the causes of their continuance and aggravation. In cases of confirmed and habitual asthma we have abundant evidence, both during life and after death, of the increased vascularity and thickening of the mucous membrane and subjacent tissues, which changes we shall afterwards find to be concerned in producing the general emphysema of the lungs which usually supervenes.

Spasmodic asthma is of common occurrence in childhood, and is then frequently complicated with eczematous and other eruptions on the skin. So, likewise, in adult life it often occurs in connexion with gout and with psoriasis, all being dependent on a morbid material in the blood; and this point should be kept in view in the treatment.

Few complaints vary in their tractability more than asthma. Some (even severe cases) yield to treatment so promptly and permanently that their cures may be ranked among the great successes of Medicine. I could cite from my notes scores of such, in which the disease has been either entirely cured, or the attacks have been rendered so few and so tractable as very little to interfere with the health of the subject. In most of these cases the disease had been comparatively recent, the attacks dating back only a few weeks or months, with clear intervals between them; but in a few instances asthmatics of several years' duration have been cured. But most of the inveterate cases admit only of alleviation and mitigation to an extent also very variable—sometimes considerable and enduring; at others, imperfect and impaired by frequent relapses. The causes of these great differences in the tractability of asthma are to be found in the structural changes which may *precede*, *accompany*, or *follow* the spasm. Bronchial spasm itself is a simple pathological element, and may be readily relieved by appropriate remedies; but if it is excited by a constant cause of irritation in the bronchial glands, at the root of the lungs, or elsewhere, it is liable to recur again so soon as the influence of the remedy is withdrawn. Or, if the spasm have existed long enough to greatly derange the circulation in the lungs and bronchial tubes, and to cause congestion and swelling of the mucous membrane, with excessive and disordered secretion, then the relaxation of the spasm alone will not be enough to effect a cure. Further, the treatment becomes still more complicated and difficult, when, from repeated recurrence of the attacks, the nutrition of the affected parts has partaken of the disorder, and the narrowing and thickening of the bronchial tubes, and the mechanical distension of the air-cells, become more permanent and convert the case from *spasmodic* or *paroxysmal* into one of *habitual* asthma.

I have before stated that, frightful as the difficulty of breathing is in a severe fit of asthma, appearing to threaten suffocation, yet it is very rarely fatal, unless when complicated with disease of the heart, kidney, or other important organ. The mere spasm of the bronchi, although it seems to bring a patient to the verge of asphyxia, is not sufficient to destroy life. Why is this, when it encroaches on the vital function of respiration more than even some fatal disorders? I think that the solution of this question lies in the fact that a certain degree of deterioration in the air or of the blood in the lungs tends to relax the spasm. In other words, when the air and blood become loaded with accumulating carbonic acid to a certain extent, this diminishes the muscular contractility, and the spasm is so far relaxed as to ease the breathing and prevent suffocation. In corroboration of this notion I shall adduce two facts. One is that observed by Laennec, that during the asthmatic attack very little natural breath-sound can be heard in the lungs, but that if the patient be desired to hold his breath for a few seconds, or to count numbers aloud as long as he can without taking breath, then the next breath is much more full and deep, as if the spasm had yielded for the moment.

(c) I have known several cases in which individuals have been threatened with pulmonary tubercle in early life, have escaped that danger, but in subsequent years have become asthmatic; and I have met with many instances of asthmatic parents having consumptive children. Yet asthma in its confirmed forms, whether spasmodic or emphysematous, prevents the deposition of tubercle in the lungs. See our work on "Pulmonary Consumption."

Laennec used to say "that the spasm was thus overcome by surprise"; but the more rational explanation is that the holding the breath accelerated the deterioration of the air to the degree in which it acts as a sedative on the bronchial fibres, which being thereby relaxed, the next breath is taken with more freedom.

The second fact bearing on the same point is that ascertained by my friend Professor Simpson, of Edinburgh, that the spasm of asthma may sometimes be relieved by breathing air containing an increased quantity of carbonic acid gas. I have tried this agent, and am convinced that it has some power, but as a remedy it is far less effectual than others to be mentioned presently. But this power of carbonic acid to relax the spasm affords a probable explanation of the limitation to the suffocative influence of asthma.

From what has been said, it may be inferred that the treatment of asthma must vary much in its simplicity and success according to the unity or complication of the disease. Against the bronchial spasm we have remedies which are pretty effectual in most cases. Belladonna and stramonium rarely fail to relieve the bronchial spasm; and in transient cases, where this is the only element, they may suffice to cure the disease. The extracts are the most reliable preparations, and may be given in doses of from a quarter of a grain to half a grain every three, four, or six hours whilst the tendency to spasm lasts. The dryness of the throat which both these drugs often cause may be counteracted by frequently sipping linseed-tea or barley-water. Sometimes, however, this dryness is useful in moderating the catarrhal flux which may follow the spasm.

But in most cases there exists something more than the mere spasm; and therefore we commonly have to give these anti-spasmodics in combination with other remedies. Thus, often there is an inflammatory cold, calling for the addition of salines and counter-irritation; and this may amount to bronchitis, requiring the aid of small doses of tartarised antimony. In chronic cases, when the attacks have recurred frequently or lasted long, there is no combination more beneficial than that of iodide of potassium, in two- or three-grain doses, and ten or fifteen grains of bicarbonate of potass, with the stramonium or belladonna. I believe that I speak within bounds when I say that, with a combination of this kind, I have cured or greatly relieved hundreds of cases of asthma. The efficacy of the alkaline iodide probably depends on its eliminative and deobstruent action, increasing the secretion of the kidneys and of the bronchial membrane, and promoting the absorption or dispersion of the thickenings and deposits in the tubes, bronchial glands, and at the root of the lungs, which I have mentioned as being often concerned in exciting or perpetuating the attacks of asthma. The diuretic or eliminative action of these medicines may be advantageously increased in some cases by the addition of squill, colchicum, or tincture of cantharides, particularly where there are indications of gout or of disease of the skin. On a similar principle, in chronic cases certain mineral waters are sometimes useful, particularly those of Eauxbonnes and Cauterets in the Pyrenees, Vichy, and Ems.

There are several other remedies for asthma in common use—generally much inferior in efficacy to the preceding, but occasionally useful as subsidiary aids, and sometimes they are our chief resources where those disagree. Such is the ethereal tincture of lobelia, which in doses of from twenty to sixty drops I have known in a few instances quite successful; more frequently it has failed, and sometimes caused much nausea and discomfort. Indian hemp, in doses of a grain of the extract, gave signal relief in two instances, where the usual remedies had disagreed; but in other cases it has quite failed, and has sometimes caused distressing disturbance of the brain and heart. Smoking cigarettes of stramonium, or of the *datura tatula*, inhaling chloroform (which for safety should be mixed with sulphuric ether and alcohol), and breathing the fumes of burning nitre-paper, are expedients which often give relief in individual cases; and although this relief is less complete and permanent than that following the use of the remedies first recommended, yet they may be useful where these fail, and, being prompt in operation, may be employed to ward off slight attacks where stronger agents are not required, or before the latter can be brought into effective operation.

Rarely we meet with cases of asthma so severe and obstinate as to resist all medicinal remedies; or it may be that the patient becomes tired of taking medicines, and renounces them in disgust—nay, sometimes I have known the symptoms aggravated by those which are commonly the most successful. In some of these change of air has succeeded wonderfully, and this not always when the change has been of the most salubrious character. In fact, the caprices of asthma with regard to air are very curious, and can hardly be accounted for. In most instances, however, a dry atmosphere agrees better than a damp one, and the air of a large town better than that of the country, especially if this be low and damp. Of places in which I have known asthmatics most free from attacks I would mention London (several parts of the West-end), Tunbridge Wells, Clifton, Brighton, and Margate (in summer); abroad, Paris, Pau, and Hyères. But asthmatic subjects should try for themselves, and remain as much as possible in the locality that they find by experience to best suit them. In the case of hay-asthma, the avoidance of the country during the hay-making season is necessary with many individuals, and the change found commonly to answer best is either to London or the seaside.

LECTURE ON FISSURE OF THE ANUS.

DELIVERED AT THE FACULTY OF MEDICINE OF PARIS, ON MAY 1, 1872,(a)

By Dr. DOLBEAU,

Professor of Surgery at the Faculty of Medicine of Paris.

GENTLEMEN,—I feel rather embarrassed to give you a definition of fissure of the anus. Certain classical authors speak of it as "*the fissures* of the anus"; others, amongst whom is Boyer, as a disease quite apart, and term it "the anal fissure." I shall endeavour to prove to you that this disagreement only exists in appearance.

The fissure of the anus described for the first time by Boyer is a Surgical complaint, for it is generally cured by an operation. It exists generally between the ages of 18 and 30, and is most prevalent from the age of 20 to 25. Some authors have considered young infants as liable to be attacked by this complaint, which is a complete delusion. *Women* are more subject to it than men; and this is a point not to be lost sight of, in consequence of the important *rôle* played by the nervous element in the symptomatic evolution of this malady. The fissure appears without any appreciable cause, and is characterised by a series of phenomena of increasing activity, which can be divided into several periods.

In the first period the patient, in going to the water-closet, feels for the first time a burning sensation, with sharp cutting pain, which becomes worse for some moments after defæcation, lasts for one or several hours, and then ceases completely. Very often the patient complains of a vague *malaise*, and of prostration, producing definitively feelings of nausea. These symptoms become quickly worse, and, in addition to the sharp pain which accompanies and follows an evacuation, there succeeds a dreadful anguish at the moment that the sphincter gives passage to the stercoral cylinder. The patients are generally subject to constipation. This sensation has been compared to the pain produced by a red-hot iron, or tearing away a tissue with a pair of forceps, or to a violent rent of the fundus; and in all the comparisons made by the patients there invariably occurs the remembrance of a horrible burning sensation.

Often "the stools" are followed by the expulsion of a few drops of blood, which has no sort of relation to the hæmorrhoidal flux, and which is always greatly exaggerated by the patients. After defæcation the pain gets stronger and stronger, until it becomes horrible, and if once witnessed can never be forgotten.

This state of suffering lasts three, four, five, or six hours after the expulsion of the fæces; it has been known to exist an entire day. Every stool is followed by the same crisis, and interrupts most suddenly the state of absolute calm in which the patient was previous to visiting the water-closet.

During the *accès* (the fit of pain) every movement is impossible. Coughing, sneezing, laughing, even the effort of talking aggravates the pain, and the patient keeps himself in a state of immobility, bent double, the forehead covered with sweat, so great is the pain.

This group of violent symptoms constitutes fissure of the anus.

Upon examining the anus you will at first perceive nothing. The margin is normal, and the only thing you will be able to find in a very few cases will be some hæmorrhoids, but so slightly prominent as to prevent you at once from attributing to them the cause of the dreadful pain you observe. On

(a) Reported by Osborne C. Powell, M.D.

examining most minutely the anus, fold by fold (*plicatura*), you may perceive a little fissure, situated generally in the posterior part of the anus, on the median line, sometimes on the sides or in front of the anus. This little narrow fissure sort of crack is similar to what is seen on the lips in cold weather when they are chapped. The slightest pressure exercised upon this little fissure with the point of a probe or with the finger provokes this horrid burning pain. Chloroform is here of great utility in enabling you to complete the inspection of this region by the introduction of a speculum ani, by which you perceive that this little lineal crack grows larger as it ascends, but in every case observed never goes beyond the superior sphincter; but it often happens that, in spite of the most attentive examination, not the smallest trace of a crack can be found, even in the case of patients attacked with the symptoms in their most violent form, which will lead you at once to the conclusion that the existence of this fissure is not necessary, and in no way constitutes the basis of the complaint.

Blondin, who has carefully studied this complaint, proposed a classification purely anatomical of the fissure of the anus. He described a cutaneous fissure identical with what syphilographers call "the rhagas," and he named it "sub-sphincterian fissure." Next to this he recognised one which he named "intra-sphincterian," and lastly a "super-sphincterian fissure." These different lesions do exist, but they constitute no necessary analogy with the group of symptoms previously described, and which alone forms the subject of this lecture.

Dr. Gosselin (Hôpital la Charité) divides fissures of the anus into—fissures where the pain is supportable, and fissures where the pain is unbearable—according as the anatomical lesion may be accompanied with slight or great pain.

For my part, I think it highly inconvenient to consider the anatomical lesion as sufficient to characterise the malady which we are at present studying, because, on the one hand, severe fissural symptoms have been known to exist without one's having been able to discover the slightest fissure; and, on the other hand, fissures of considerable extent have been known to give rise only to most moderate symptoms.

In cases of persons suffering from hæmorrhoids, and where they assume the form of atonic ulceration, you have seen fissural phenomena (and you know what I mean by this expression) to exist, and in other cases you have seen them fail to appear, although in both cases the anatomical conditions were precisely identical, and very grave. How can one account for these moderate sufferings in the case of some patients, and those atrocious sufferings in the case of others, in presence of an anatomical lesion precisely identical in both cases? The explanation is this: those patients who suffer most are under the influence of a new element—viz., anal neuralgia; for a neuralgia, wherever its seat may be, can be allied with very many anatomical causes, but it can also depend upon that peculiar state of general predisposition that Dr. Bouchut calls by the name of "neurosism." The neuralgia of the anus is not an exception to this rule. It is produced either by a fissure or by a neurosis, but it is not necessarily accompanied by an anatomical lesion.

After the manner of other descriptions of neuralgia—such as the facial neuralgia, for example, which is sometimes accompanied by tic douloureux, and even by tonic convulsions, sometimes producing contraction—the neuralgia of the anus provokes a contraction of the sphincter, the rigidity of which would at times astonish you. It is in cases of this kind where men whose sagacity is beyond all doubt—such as Velpeau and Nélaton, our masters—have been unable to find the least trace of a fissure; consequently, we are here necessarily led to believe in the essential nature of this neuralgia. We are, therefore, now in a position to give a definition of this malady. Consequently, I define "fissure of the anus as being a spasmodic neuralgia of the anus, with or without a fissure."

The irritation of the anus by the incessant contact of irritant liquids, which in certain cases run from the vagina, may be the occasion of painful symptoms; but never will these phenomena reach the degree of activity described in the important pathological group we have just been taking into consideration. The age, the sex, conditions of local irritation are accidental causes of anal fissure, and a very important one is constipation.

Diagnosis.—The diagnosis is not difficult to make. It is entirely contained in the description of the symptoms that the patient gives to the Medical man he consults. But if you interrogate your patient in a superficial manner—if you do not take into consideration the tendency that the patients all display to exaggerate their sufferings—you might be easily led to imagine that an anal fissure existed in cases where patients were suffering from hæmorrhoids, with hard stools, or in cases of persons not sufficiently clean in their person, and where the anus was irritated by "runnings" from a neighbouring organ. It is in cases of this kind that baths and calming pomades produce marvellous cures. But remember once for all, the complaint that you have cured in this manner is never a fissure of the anus.

Your diagnosis will only be a true one when you have made a complete examination of the anal region; you well know that the necessity for touching is an absolute rule, and in all cases where you have not performed it your conclusions are necessarily uncertain. Endeavour to examine a patient with an anal fissure by the finger—it is almost an impossibility; you will provoke an awful attack of pain, and if your finger has been able to enter, the manner in which it is compressed by the sphincter proves that the dynamometric degree of contraction exercised much surpasses the normal contraction of this muscle which exists in an adult person; you will also be able to determine by it that the muscle has become as hard as wood. The existence of a fissure is very probable, and if you pass your finger in a posterior direction you will very likely bring on a neuralgic attack, exactly in the same way as touching a decayed tooth will produce "tic douloureux" in facial neuralgia. An examination conducted in this manner, and due attention paid to the few drops of blood passed by the patient, will enable you to make an unerring diagnosis; for, with regard to this last symptom, you will only have to consider the colour of the blood, which is pale rose, and the small quantity of it, to feel quite assured that it is not produced by a hæmorrhoidal flux.

The prognosis of the fissure of the anus is favourable, for it is a complaint which is curable; but if one mistake the nature of the malady, if the fear of pain prevent the patient from letting himself be properly examined, the repetition of these attacks depresses the *morale*, and throws the patient into a very grave state of physielogical misery; many patients refuse to eat, in order to avoid going to the water-closet. Velpeau used to relate how a single operation had restored to health and life patients who had become living skeletons, incapable of standing on their limbs.

I think that Medical science embraces some cases of death where patients have been reduced to this extreme state of weakness. While admitting that this fatal termination seldom takes place, it must be borne in mind that anal fissure abandoned to itself gravely compromises the general health.

Treatment.—With regard to the treatment great disagreement exists amongst different Surgeons. Those who believe in essential ulceration of the anus prescribe tonics and astringent pomades. After this fashion Bretonneau treated the anal spasm by the extract of rhatany. With cleanliness, fomentations, and cylinders of charpie impregnated with rhatany, many fissures where the pain is supportable may be cured; but you will never cure the real fissure, so well described by Boyer, in this way. The first thing to do is to abolish the muscular element. Récamier, whose name is inseparable from the history of this malady, well comprehended that the fissural lesion is an element without importance, and he cured several patients by what he termed "cadenced massage." Chloroform was then unknown. He had the patient held by some strong assistants, and he introduced first one finger, then another, and so on until he had passed his whole hand into the rectum; he then bent his fingers, shut up his hand, and drew out his closed fist from the intestine. This was certainly a most rational operation, and the employment of chloroform in the present day permits us to practise it in a much less barbareus manner. Thus, the patient being put under the influence of chloroform, the Surgeon introduces his two thumbs into the rectum and endeavours to bring them into contact with the two ischias; at that moment one hears a strong cracking noise, and the operation is finished. The first stool after the operation is painful; but this pain is simply the result of the region being contused, and does not in the least resemble the pain which characterised the spasmodic attacks. The succeeding stools are without any pain, and the cure is assured.

The anatomical result of this forced dilatation is but little known. In 1856 I operated in this manner at the Charité Hospital, in the service of Dr. Brequet (where I was the House-Surgeon), on a young hysterical girl of 20 years of age. The operation was performed in the regular way, and the assistants heard, as well as myself, the cracking noise of which I have just spoken. The same evening a sharp attack of cholera carried off my patient. I seized this, the first opportunity I had had, of inspecting the state of the sphincter. I was then one of the prosectors of the Faculty, so I was well versed in

dissection. I found the sphincter intact, the cracking that we heard, and that I felt, was caused by the tearing of the mucous membrane, and the rent extended very far. The cure is thus complete after the operation; but it is not a lasting one, relapses often occurring. And this is another argument in favour of the neuralgic nature of this complaint. Forced dilatation is, however, by far the best sort of treatment, but it is not the most ancient.

Boyer was not afraid to incise the whole thickness of the sphincter with a strong bistoury. Blondin proposed and executed the subcutaneous section of this muscle. Gosselin proposed a mixed procedure, which consisted of incising in a direct manner the fissure in endeavouring only to cut the most superficial part of the muscle. Dr. Jobert (de Lamballe) used to excise the fissure. He met with some successes; but there is no record of what he did when the fissure did not exist.

Some Surgeons pretend to cure all these fissures by cauterisation with the nitrate of silver. They deceive themselves, for they only cure cases where the fissures are supportable. Thus, as a general rule, you will give the preference to forced dilatation, the patient being under chloroform.

Gentlemen, in terminating my lecture I must mention a particular complaint but little known, and the description of which finds a natural place at the side of the history of anal fissure. Certain persons, and particularly women affected with a fissural complaint, are subject simultaneously to spasmodic phenomena (very painful) in neighbouring organs—such as painful cramp of the bladder during micturition—which coexist with the atrocious symptoms of the fissure of the anus.

During the period that I replaced Jobert at the Hôtel-Dieu, Dr. Vigla called me to see a young girl in his service who presented these three painful manifestations with predominance of anal neuralgia. Dr. Vigla informed me that forced dilatation had been performed twice without success, and begged of me to perform (which I did without any hopes of success) the subcutaneous section of the sphincter ani in this case. Complete success followed my operation. Dr. Vigla informed me that Jobert had cured, by the same operation, a young nun affected with what he called the neuralgia of the three sphincters—viz., anus, bladder, and vagina. You must therefore bear in mind that in certain exceptional cases some women may present signs of a triple neuralgia, and that this complex malady can be cured (I cannot explain by what mechanism) by the section of the sphincter ani.

Independently of the interest that I attach to this triperineal neuralgia, analagous to the trifacial neuralgia, we find in this fact a new confirmation of the opinion of Boyer as to the spasmodic nature of fissure of the anus.

ORIGINAL COMMUNICATIONS.

CONSIDERATIONS RESPECTING THE PRODUCTION OF HEAD SYMPTOMS.

By C. HANDFIELD JONES, M.B., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 595.)

Dr. Todd makes the very important observation that blood effused between the dura mater and bone may very often cause not only paralysis but a rigidity of the paralysed muscles. He speaks of the hemisphere opposite the paralysed limbs being in a state of "irritant compression," which may result from depressed bone, or hæmorrhage outside or inside the dura mater. He cites a case which came under his own observation, where the muscles on the side opposite an hæmorrhage from the middle meningeal artery were quite rigid (*vide* p. 222).

In commenting upon a case of arachnitis with copious effusion of pus, which had compressed and formed a cavity on the surface of the left hemisphere, and where after some days of illness right hemiplegia ensued, attended with almost tetanic rigidity of the paralysed muscles, he says that this kind of hemiplegia is due to a cause which exercises at once a paralysing and irritating influence on the brain; and that this influence is propagated to the spinal cord, and through the nerves implanted in that portion of the nervous centre to the muscles of the paralysed limbs, in which it excites contraction. (P. 224, "Clinical Lectures on Paralysis," etc.) These quotations show clearly that the idea of paralysis being caused by an influence—not only by local lesion—was familiar to Dr. Todd, and that he counted tonic spasm as quite compatible with actual paralysis. The affinity between spasm and paralysis is affirmed by many other examples; and the above interesting observations seem to establish that both may be produced by a morbid cause operating on a centre whose function is rather intellectual than directly motor.

The next kind of evidence we have to consider is that afforded by tumours, abscesses, hydatids, etc., in the brain. These may from one point of view be grouped together as foreign bodies; and an important point in regard to their presence seems to be that for a considerable time they are often latent, and then—sometimes suddenly—give rise to severe symptoms. Dr. Hughlings-Jackson says—"It is beyond question certain that a person may have extensive disease of one cerebral hemisphere without any obvious symptoms. It is frequently so with abscess of the cerebral hemispheres." He thinks that "the general study of the doings of foreign bodies in the brain leads to the conclusion that changes do come of a material nature about the tumour, and that it is the spreading of these towards the motor tract and to the optic nervous system, etc., which gives rise to hemiplegia, convulsions, and amaurosis. As a matter of fact, hemiplegia and amaurosis do occur with gross disease of the surface of one hemisphere, and sometimes they do not. It seems clear, then, that the local disease is not the cause of these symptoms, but that they depend on changes which the local disease permits or gives rise to." (London Hospital Reports, vol. iv. p. 386.) Irritation, as applied to the effects of these foreign bodies, he holds to be often nothing more than a metaphysical explanation—*i.e.*, I suppose, none at all. There can be no doubt that the point here raised deserves very careful consideration. Tumours in other situations may excite changes in the surrounding tissues, and so they may in the delicate cerebral. If a "neuritis migrans" may occur in the nerves of the limbs, some analogous change may be conceived to be propagated from the focus of palpable disease to the centre whose function is impaired. Yet it is to be remarked that changes occurring around slow-growing tumours are generally very limited in extent, and little disposed to extend in one direction. With hydatid tumours this is especially the case. Such tumours occurring in the brain, and slowly enlarging, could hardly act otherwise than by pressure on adjacent tissues. This would cause wasting and absorption in its vicinity, and at a distance would be diffused throughout the cerebral mass, displacing the subarachnoid fluid, and compressing its bloodvessels more or less completely. I propose now to examine briefly various recorded cases, for the purpose of ascertaining how far their testimony supports Dr. Hughlings-Jackson's view, or the reverse. No selection of the cases has been made, save by excluding those where the lesion was too complex to admit of any conclusion.

1. In the Pathological *Transactions*, vol. vi., p. 17, Dr. Brinton relates the case of a fine healthy-looking man, aged 26, who had a series of epileptic fits, commencing October 1; on the 12th an attack of hemiplegia of right arm and leg—not after a fit—increasing drowsiness and stupor, deepening into coma, which proved fatal on the 31st. The hemiplegia was complete and permanent. The urine was normal. At the upper and inner part of the left hemisphere, rather anterior to its middle, there was a deposit of tuberculoid material and tubercles occupying rather more than three square inches. The deposit was embedded in the grey matter of the convolutions, which was much congested. The arachnoid cavity contained about six ounces of bloody serum; the lateral ventricles a little. Almost all the hemisphere above the left lateral ventricle was firmer than healthy tissue, while the rest of the brain was notably softer. Dr. Brinton leaves it doubtful whether the hemiplegia was owing to the damaged state of the cortical grey substance, or to interstitial exudation between the white fibres beneath. I have little doubt myself that the first of these two causes is the real one, for the induration could hardly have produced such a sudden effect; and when more marked than it seems to have been in this case, it tends, according to Dr. R. Reynolds, to produce intellectual decay rather than paralysis. (*Vide* vol. ii., p. 483.) Still, the case should be noted as one which favours to some extent the view that the symptoms are dependent on material change. The coma may have been produced by the fluid in the arachnoid cavity, though I doubt very much whether this was so. Nothing is said of the convolutions being flattened.

2. In a case recorded by Dr. Markham (Pathological *Transactions*, vol. v., p. 15), the symptoms were—numbness in left hand and leg; loss of motor power in same, with rigidity of leg: ptosis of left eyelid; stupor deepening into coma. There was a cancerous tumour in the posterior lobe of right cerebral hemisphere, adherent to the dura mater and to the roughened

cranial bone, surrounded everywhere except below by cerebral matter, in appearance perfectly healthy, and well-defined in outline; for though the cerebral matter adhered at some parts, in none did it seem to pass into the tumour—it did not reach to or manifestly affect the ventricles or other parts of the brain. Here the evidence is pretty strong against the existence of any material change which would account for the hemiplegia, the ptosis, or the coma. The impairment of sensation is to be noted according with Mr. Hutchinson's observations respecting laceration of the hemisphere.

3. In a case, contributed by Dr. Menckton (Pathological *Transactions*, vol. vi., p. 4), of fibrous tumour of the dura mater corresponding to the right frontal eminence, the bone was slightly excavated by the outward pressure, a deeper excavation was found in the substance of the right anterior cerebral lobe, and the brain-tissue around this was much softened. The man suffered for years from intense pains in the forehead and temples more or less constantly, and from fits of epilepsy. No palsy. Here there was change around the tumour, but no paralysis and no stupor—only some mental disturbance occurred near the close.

4. In the same publication, vol. ix., p. 20, Dr. J. W. Ogle describes a case in which there were two carcinomatous tumours—one at the anterior extremity of the left hemisphere, the other at the posterior and superior part of the same. Both tumours, of bantam's-egg size, lay quite superficial, adherent to dura mater and arachnoid, and were easily enucleable from surrounding brain-tissue, which was somewhat softened immediately around them; but the softening did not extend to adjacent parts, and, excepting a slightly increased amount of ventricular fluid, the brain and its investments were otherwise healthy. There was paralysis of motion and sensation on the whole right side, as well as of vaso-motor influence; the temperature of the right arm was considerably higher than that of the left; double ptosis and partial facial paralysis; sickness, and slow, hesitating speech, with fits of agonising pain in the head, during which "he almost lost his reason." Death occurred by apnœa; perhaps from obstructed trachea. The extensive range of disorder in this case accords with the existence of two foci of diseased action, but it certainly seems counter to the evidence to believe that any material change had occurred except in the immediate vicinity of the tumours. The absence of unconsciousness in this case deserves to be specially noted in contrast to Cases 1 and 2; also the existence of sensory paralysis concurring with disease of the hemisphere, as in Case 2.

5. Dr. Murchison (Pathological *Transactions*, vol. xiii., p. 3) records a case where there were no symptoms at all of cerebral lesion, though a tumour the size of a potato-plum was embedded in the upper surface of the right hemisphere of the brain, at the junction of the middle with the posterior third—one inch and a half from the longitudinal fissure. The surrounding brain-substance was not at all softened, and contained no oily matter nor compound granular corpuscles. The patient died of advanced phthisis. This case is rather in favour of Dr. Hughlings-Jackson's views, as it shows an absence of change in the surrounding tissue coinciding with an absence of symptoms. I note, however, that it is this very circumferential tissue-change which conditionates "irritation." The extra-cranial disease probably was one cause of the tumour remaining quiet.

6. In the case of a girl, aged 13, recorded by Dr. R. Bennett (Pathological *Transactions*, vol. xiii., p. 7), there were two hydatid cysts in the middle and posterior lobes of the right cerebral hemisphere; the larger contained six ounces of fluid. The left optic tract was smaller than the right. The rest of the substance of both hemispheres, the cerebellum and mesocephale, and the medulla oblongata were apparently perfectly healthy, rather anæmic than otherwise. The posterior fontanelle was open. Little or no fluid in the lateral ventricles. The symptoms were severe headache, fits, impairment of vision, dilatation and fixedness of pupils, retinal anæmia, loss of control over the movements of legs so that she could not stand, palsy of sphincters. There was no stupor; the child was very intelligent. Death occurred in a prolonged convulsion. Considerable pressure must have been produced by the cysts in this case, but its effect would be lessened by the fontanelle remaining open. The retention of intelligence in this case and the absence of hemiplegia are very remarkable. So is the loss of vision; for the tubercula quadrigemina seem to have been healthy, and the left optic tract could hardly have been compressed by cysts in the right hemisphere. It is most probable that the loss of power over the lower limbs and sphincters depended on the intracranial mischief, yet one would like to have known certainly the state of the cord. The convulsions, which affected both sides of the body equally, could not have depended on cerebral anæmia, for this, if chronic, has no such effect. Both they and the severe head pain can, I suppose, only be referred to "irritation," possibly acting on vaso-motor nerves; and I can see no other explanation to offer of the iris and sphincter palsy and the loss of control over the lower limbs. The centres presiding over these muscles must have been injuriously affected by the impressions conveyed to them. Had the arms not retained their power and had stupor existed pressure might have been reckoned an adequate cause of the phenomena; but as the case stands I cannot recognise this or altered structure as *veræ causæ*.

7. Dr. Goodfellow (Pathological *Transactions*, vol. xiii., p. 17) relates the case of a male, aged 52, who died with a considerable induration of the left middle lobe of the brain. The substance of the hemisphere at this part was indurated, forming a well-defined mass of a globular form, two inches and a quarter by one and three-quarters. It was closely adherent to the posterior two-thirds of the middle fossa of the skull. Around this circumscribed tumour the brain substance to the extent of half an inch to three-quarters was soft and diffluent and puriform, while all beyond was perfectly healthy. The bone was red and rough below the indurated part. The symptoms of decided illness extended over about six months. He had first an attack of giddiness and loss of consciousness, then severe pain in left side and back of head, vertigo, and some attacks of shivering, great impairment of memory, and occasional unconsciousness, great irritability and weakness. He was comatose for the last six hours of life. The day before death his mind was tolerably clear and active. Premonitory symptoms had been violent; fits of sneezing, pain in the left side of head, and deafness. The focus of disease in this instance was tolerably large, and not remote from the basal ganglia; there was a good deal of softening round it, probably inflammatory. This was a condition in which hemiplegia might well be expected, but except slight temporary numbness of the left leg there was no trace of it. His hemispheres, except occasional interruptions of unconsciousness, functioned tolerably well until quite the last. The only faculty which failed very much was that of memory, and it is certainly curious to find this defect so marked while so much of the organ which subserves its production was in a healthy state. The severe head pain must be referred to disease of the bone or dura mater. The case may be noted especially on account of the absence of hemiplegia and stupor considering the amount of change that had taken place around the primary lesion.

8. In Pathological *Transactions*, vol. iii., p. 246, Dr. Langmore reports the case of a male, aged 52, in whose right posterior cerebral lobe was found a soft tumour of the size of a pullet's egg. It was embedded in the substance of the hemisphere, and approached within a few lines of the surface. Four months before death he had frequent headache, with numbness down right arm. After a time the pain came on in paroxysms four or five times daily, each lasting twenty to thirty minutes, and so intense as to cause profuse perspiration. During the last two days of life delirium came on in the attacks, but he was perfectly conscious in the intervals. The attacks were preceded by pain and numbness in the right hand and arm. There was no paralysis. He died in convulsions. Here the symptoms were only pain on the side of the lesion, disturbance of the hemispheres occasioned by the pain, and vaso-motor palsy (inducing sweating) caused in the same way. The case contrasts strongly with Cases 2 and 4. It was not one of latent tumour. Why was there no hemiplegia? It would be, I am afraid, metaphysical to say that the irritation took a different direction; yet it is a fact that irritation from diseased teeth takes different directions in different cases.

9. Mr. Hutchinson records a case (Pathological *Transactions*, vol. xvi., p. 15) where there was an isolated mass of crude tubercle the size of a horse-bean in the extremity of the posterior horn of right lateral ventricle, with some adjacent softening. In left fissure of Sylvius, around the vessels, there were several ill-defined masses of tuberculoid matter with exudation matting all the parts together. The adjacent cortical substance was softened, especially in the anterior and upper part of the sphenoidal lobe and island of Reil. No other disease in head. The symptoms were aphasia for a week, then a series of epileptiform attacks and loss of power over sphincters. During the last few days he was insensible. The aphasia is explained by the seat of the lesion, and the convulsions by the diseased state of the membranes; but how are we to account for the sphincter paralysis, except we admit the existence of inhibitory irritation proceeding from one of the foci in the brain, and telling in-

juriously on the lower part of the cord? Dr. Todd recognises sphincter paralysis as by no means a rare accompaniment of diseased brain; and we may be pretty sure that if there was substantive disease of the cord, some paraplegic affection would have been noticed. The absence of hemiplegia is rather remarkable, as there was much softening close upon the left corpus striatum.

(To be continued.)

REMARKABLE CASE OF EXTRA-UTERINE FŒTATION.

By METCALFE JOHNSON, M.R.C.S.E., L.S.A.

In the following case the remarkable features are the length of time which has elapsed between the conception and the escape of the fœtus, the preservation of good average health during the whole period of forty-four years, and the perfect restoration of the catamenial discharge up to the age of 45:—

In January, 1870, I was passing the door of her house, when A. B., an old woman, 68 years of age, called me in to see her. Having told me a story of extra-uterine fœtation on a previous occasion, to which I had given little heed, I was somewhat surprised when she told me she had an extreme pain in her anus, and on examination found a hard substance impacted there, surrounded with fæcal matter. This I removed without difficulty, and she expressed herself much relieved. Being still sceptical as to the extra-uterine fœtation, I thought this body might turn out to be an oyster-shell, as it had somewhat that form. She was at the time following her usual occupation of washing, and, accordingly, proceeded to wash the substance in the suds before her, when, to my no small surprise, I found it to be a perfect parietal bone. She then went upstairs, and fetched me two other bones, a small vertebra, and a compact wedge-shaped bone, which has the appearance of an ethmoid bone much compressed. These, she stated, had been passed by the bowel about three months since. On the following day she passed the frontal bone, and on the next a small vertebra. These had a strong fæcal odour when given to me. Her manner and her anxiety to keep the matter a secret from her neighbours, showed me that the case was genuine, independent of my own personal removal of the parietal bone. Her statement is as follows:—

About forty-two or forty-three years ago, being then 26 years of age, and being, as she believed, at the full period of pregnancy, she felt labour pains coming on, and sent for the Doctor. After the lapse of three days a consultation was held, and a diagnosis of extra-uterine fœtation was pronounced. A memorandum in the books of the only Medical man of the three who attended her now living fixes the date in 1827. She then became very ill, and was confined to bed for three months. After this she was removed to the seaside, but shortly returned home (as she and they also expected) to die. Recovery, however, slowly took place, and in twelve months' time she was able to resume her employment as a washerwoman. For three or four months the catamenial flow was absent; but the flow of milk was excessive, and continued for a considerable time. The catamenia, however, returned in about four months, and continued to return at the proper intervals until the age of 45, when she ceased to menstruate entirely, and without any severe disturbance. The period, which consisted of four days, of sanguineous discharge remained after the event much the same as it had been before. Her estimate of the nine months' maturity of the child was founded on the last catamenial period, which was nine months before her labour pains (or what she supposed were such) came on. Her figure was large in front of the abdomen, but the greatest protuberance was to the left side. This enlargement, though slowly subsiding, never entirely left her. Thirty years ago she passed some small bones by the anus, which a midwife (since dead) told her were the fingers.

She is now a strong, healthy old woman, and follows her occupation of washing at home for her more wealthy neighbours. Until within the last three months she has been in the habit of going from home to wash.

At the present moment her figure is not perceptibly altered from that of any other old woman. There is still a slight enlargement in the left iliac region. Her pulse is regular; tongue clean; sleeps well, and beyond a slight leucorrhœa she suffers comparatively little.

In proof of her age, and the veracity of her statements, I have seen the copy of her baptismal register in 1802.

I made an analysis of the parietal bone, which weighed thirty grains, and obtained the following results:—After sawing it into two pieces, one-half weighed thirteen grains; the residue, after burning in platinum crucible, was seven grains. The other remainder, after digestion in hydrochloric acid, gave five grains, from which I assume, allowing for loss, the percentage of earthy and animal matter to be as follows:—

Earthy matter	61·55
Animal matter	38·45
Total . . .	100·00

Comparing this with the earthy matter in adult bones (66 per cent.), we find this bone to be as 61 to 66 of earthy matter, or, as I should assume, a very high percentage of earthy matter for bones in the fœtal condition.

The following, by Thomas Percival, M.D., F.R.S., and S.A., in the "Medical Commentaries," may be of interest to compare with my own case:—

In July, 1751, Mrs. T., aged 24, received a sudden shock of fright in the sixth month of her pregnancy, which occasioned some pain in the loins. The abdomen afterwards became much distended, but in half a year after subsided. Soon after her menses appeared at stated periods in sufficient quantity, always attended with violent pains. Milk flowed from the breasts for several years.

In 1757 she was afflicted with great flatulence, and often with hysterical fits. Her uterine discharges had become very putrid. Her health and strength seemed to be gradually impairing.

On May 13, 1772, she discharged by anus two bones of a child's head.

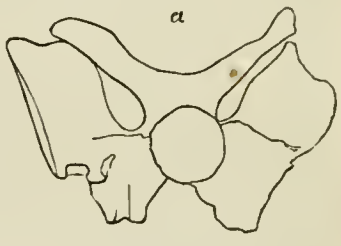
On the 14th she voided in the same way another bone of the head.

On the 17th she discharged the trunk of the body, wanting some of the viscera, of a female fœtus.

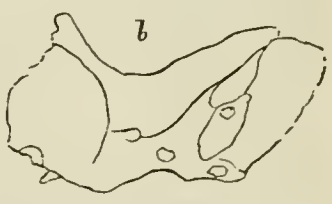
In about two months after this event she suddenly relapsed, and died in a few days.

In the *London Medical Journal*, 1787, Michael Underwood, M.D., describes a case in which, in 1738, a woman, aged 30 years, after thirteen years passed some bones of a fœtus per anum, and finally ended a life of pain and suffering at the age of 70 years.

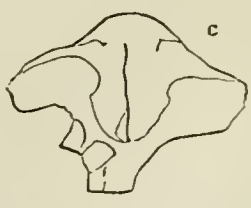
Other cases of bones passed per anum after many years are recorded by various authorities, but I have failed to find any history of a person able to discharge the active duties of a laborious life to the age of 70 years, but who, beyond a comparatively small amount of inconvenience, was but a slight sufferer, though the cavity of the abdomen was the seat of almost the entire bones of a full-grown fœtus.



Anterior aspect.



Posterior aspect.



It is now more than two years since the first record of this case was made, but her health remains unimpaired, save a constant sort of leucorrhœa, which seems as though an effort of nature was being set up to restore matters to a healthy equilibrium.

I enclose with this a rough sketch of the two bones, which I am unable to recognise. One presents the appearance of an undeveloped sphenoid, while the other, as before remarked, has the aspect of a compressed ethmoid.

The bearing of these cases of unusual occurrence upon our daily practice is less evident than that of more frequently recurring diseases; nevertheless, there is an interest in the consideration of a rare case which seems to excite the attention more easily than other things. I trust, therefore, that this case may be acceptable to some of your readers.

ON LIENTERIC DIARRHŒA IN CHILDREN.

By EUSTACE SMITH, M.D.,
Physician to H.M. the King of the Belgians; Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, etc.

A VARIETY of diarrhœa is not uncommon in children, the peculiarity of which consists in the fact that the motions contain little fæcal matter, but are composed almost entirely of undigested food mixed with mucus so as to present a slimy appearance. These motions are passed very shortly after or even during a meal; the food taken appears to pass with extraordinary rapidity along the alimentary canal, and to be voided in almost the same state in which it was swallowed.

The condition which gives rise to this looseness of the bowels is no doubt an unnatural briskness of peristaltic action; the intestines are in a state of great irritability, so that food taken into the stomach is at once forced along the digestive tract with a rapidity which allows little digestion to take place during its passage.

This form of diarrhœa is found in children of from 3 or 4 to 9 or 10 years of age, and gives rise to much emaciation, pallor, languor, and to all the other signs of defective nutrition. At the same time the other consequences of irritable bowels are usually to be noted, and in bad cases night-terrors, nocturnal incontinence of urine, sudden faintness, unusual fretfulness and causeless crying are commonly sources of great anxiety to parents, who attribute them at once to that great bugbear of mothers, "irritation of the brain."

The bowels act three, four, or more times in the course of the day. There is almost always an evacuation in the morning on first rising from bed, and afterwards in the course of the day each meal is at once followed by a like movement of the bowels, the child having often to leave the table hurriedly, and frequently before the repast is actually concluded. Each motion is preceded by griping pains in the belly, and is characterised by excessive urgency, the patient having great difficulty in restraining his desire during the time necessary to enable him to reach the closet. These griping pains are not always followed by a stool, but may come on and go off at irregular times in the course of the day without any result. Sometimes, however, they are accompanied by a desire to go to stool, although no motion is actually passed. The tongue may be a little furred, but is usually clean, and is red at the tip and edges; the redness being due to small crimson papillæ, which are sometimes slightly elevated.

This variety of diarrhœa is not to be controlled by the ordinary astringents, and is very much increased by aperients as castor oil. Opium will, however, often check it temporarily; but for its permanent cure the best remedies are arsenic and tincture of nux vomica in small doses. The abnormal activity of peristaltic action to which the derangement is owing appears to be due to impressions of cold; and therefore, that the cure may be permanent, it is advisable to protect the belly by a broad flannel belt, so that the body may not be exposed to sudden chills.

The following short cases will serve as illustrations of this form of diarrhœa, and of the treatment to which it is most readily amenable:—

Master R., aged 5 years, was brought up to me from the country. "For the last twelve months he has been subject to prolonged attacks of diarrhœa, during which the bowels will act four or six times in the day. The motions usually follow a meal, and sometimes so urgently that he is obliged to leave the table before the repast is concluded. The motions are said 'to run from him,' and to contain much slimy matter. There is no straining, but the stools are preceded by some griping pains in the belly. He is fretful and rather thirsty, but sleeps well at night. He is losing flesh rapidly, although his appetite is large." The child was ordered to take three drops of tincture of nux vomica in a draught of citrate of potash three times a day before meals. A few days afterwards he returned very much better. The bowels were acting three times a day, not after meals. His appetite was more easily satisfied, and he had ceased to waste. A change was then made in his medicine to one drop of liq. arsenici chlor. in a nitric-acid mixture before each meal, and he was not seen again.

Elizabeth W., aged 4 years, had suffered for a long time from repeated attacks of diarrhœa, each of which lasted for many weeks together. The motions were said to follow immediately upon taking food, and to occur sometimes in the intervals between the meals, so that the bowels were frequently acted upon five or six times in the day. The stools were slimy, and were passed without straining or apparent discomfort. The child was irritable in temper, and was very restless at night. Her appetite was capricious, and she was very fanciful in her eating. Her skin was exceedingly rough and dry. The tongue was clean, and over the surface were scattered light-red elevated papillæ. She was first seen on January 7, and was ordered to take one drop of liq. arsenicalis in a mixture containing citrate of iron and ammonia, with bicarbonate of soda, three times a day. A warm bath was recommended every night, for the purpose of softening the skin and removing the dry epithelium scales.

On January 14 the girl seemed better in herself, although the bowels were in the same condition as before. She had taken the medicine regularly, but each meal was still followed by the accustomed stool, and the child was still losing flesh. A mixture was then ordered containing laudanum and tincture of nux vomica—two drops of each to be taken before each meal. Considerable improvement followed the change of medicine—the appetite became very good, and the bowels, although still relaxed after each meal, yet did not act in the intervals, so that the daily number of evacuations was much reduced. The skin, owing to the nightly warm bath, had become soft and supple. One drop of liq. arsenici chlor. was then given three times a day in a nitric acid mixture, and the cure was soon complete.

In the following case the lienteric diarrhœa was associated with incontinence of urine:—Emma L., a girl of 8 years old, who had suffered from rickets during infancy, was brought for advice for an almost constant looseness of the bowels. The stools occurred directly after meals. She also complained of an inability to hold her water for long together, either in the day or night. She was ordered three drops of liq. strychniæ and ten drops of tincture of belladonna three times a day before meals. A few days afterwards she could hold her water very much better, but the bowels were still relaxed after meals, and were as loose as ever. One drop of liq. arsenici chlor. was then given with dilute nitric acid three times a day before meals, and in the course of a week greatly improved the character of the stools, which were more solid and healthy-looking, and were less commonly found to follow a meal, although they were still too frequently passed. The girl was said to be very nervous, and to complain of slight pains in the belly. The mixture was then changed to—℞. Tinct. nucis vomicæ ♏v., liq. arsenicalis ♏j., mist. pot. citrat. ℥ss. three times a day; and the motions soon became perfectly natural both in number and quality.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ST. PETER'S HOSPITAL.

STONE IN THE BLADDER—LITHOTRITY—CURE.

(Under the care of Mr. TEEVAN.)

J. T., aged 25, cooper, was admitted into the Hospital June 5, 1867.

Past History.—Comes from Stourbridge, Worcestershire, where he was born. For some years past has noticed red gravel in his urine. Eighteen months ago passed two small stones. Has been troubled with pain in the perineum for a long time, but suffers none at the end of the penis. Blood is often seen in the urine.

Present Condition.—Is a very powerfully-built man, of symmetrical proportions, but of very pale aspect, and apparently greatly depressed in spirits. States that stream of urine is very small, but he has never suffered from retention. Generally he has to make water every half-hour, but on some days he can hold it for a longer period. The act of micturition is usually accompanied with that of defæcation. Constantly passes some blood in urine. Much pus and albumen in water.

On May 27 the patient was examined by Mr. Teevan, who found a stone of considerable size, and as the urethra proved to be extremely sensitive, he was put on henbane and potash.

June 2.—The patient being under chloroform, Mr. Teevan passed a lithotrite to measure stone; but the bladder contracted firmly, expelling the urine, and preventing the instrument from being sufficiently open to grasp the calculus.

4th.—Mr. Teevan crushed the stone, which was one inch and three-quarters in diameter and phosphatic.

6th.—Operation repeated.

7th.—Many pieces of stone have come away to-day. Patient suffered much pain.

9th.—Yesterday a large fragment lodged in the perineum, causing much suffering, and to-day it came away.

10th.—Patient more comfortable. Was only called out of bed twice last night.

12th.—Is in a good deal of pain. Some blood has passed.

15th.—Lithotrity performed. Much stone passed after this crushing.

20th.—Lithotrity; but little *débris* came away.

24th.—To-day five large fragments were broken up, and much *débris* passed the next day.

28th.—Is feverish, and passing much blood. Ordered effervescing saline.

July 4.—Patient well enough to undergo another crushing.

11th.—The operation was repeated.

14th.—Health good. Urine getting clear.

Lithotrity was performed on the 18th and 27th, and on August 9. A great deal of *débris* passed after each operation.

August 17.—Patient thinks he is nearly rid of the stone, as he experiences but little annoyance. A few small fragments were crushed to-day, and but little passed afterwards.

23rd.—The lithotrite was introduced to-day, but scarcely any stone was found.

September 1.—Is quite free from any pain in the bladder, which was examined with the lithotrite, and found free from any fragments. Patient holds his water comfortably for three hours.

July 1, 1868.—To-day the patient called at the Hospital to say that he had remained perfectly well since the operation, now nearly a year ago.

Mr. Teevan remarked that there were several points of interest in this case. In the first place, the stone was the largest he had crushed, the *débris* alone filling an ounce bottle; and although phosphatic, was tougher than such a stone usually is. Now, such a calculus was not to be attacked with a lithotrite unless there were strong reasons in support of such a course, which certainly in this case existed. The patient was a very powerful young man, and there was no reason to suppose that there was much amiss with his kidneys. One great point in favour of lithotrity in this particular instance was that the urethra was unusually capacious, and thus enabled the bladder to rapidly get rid of the fragments after each operation; but, on the other hand, the canal was excessively sensitive. This, however, was not apparently such a drawback as at first sight it might appear; for it would usually be found that in vigorous young men, whose parts were well nourished and in a state of active life, the urethra was naturally more sensitive than the callous canal of old age. Although so many crushings were required to get rid of the stone, and the patient was consequently subjected to much pain and irritation, yet the result was all that could be desired; for when seen a year after the operation he still remained perfectly well, having been absolutely free from any annoyance all that period. Now, it cannot be said that lithotomy would have been as safe in this case as lithotrity, for the former operation in a subject like this patient was by no means devoid of serious risk to life. A feeble old man would often make an excellent recovery after lithotomy; whilst a strong young man would occasionally die after being cut, with every chance apparently in his favour. In the former case it would seem as if the patient became, as it were, habituated to his state, and the operation did not cause the shock it produced in the latter.

SEAMEN'S HOSPITAL, GREENWICH.

TEN CASES OF SCURVY.

(Under the care of Dr. STEPHEN H. WARD and Dr. REGINALD THOMPSON.)

[Reported by Mr. ADAM YOUNG, House-Physician.]

J. H., aged 56, D. T., aged 30, and J. O., aged 21, were admitted into the Seamen's Hospital on April 4, all suffering severely from scurvy. Spongy gums, sallow pasty aspect, pearly conjunctivæ, and considerable emaciation were symptoms common to all. Two were the subjects of hard effusions about the muscles of the calf and tendons of the knee-joint, which latter were also the seat of extensive bruise-like discolorations. The third exhibited spots about the legs and thighs more akin to purpura, but one of his ankles was "brawny" to some extent. J. H. has now had four attacks of scurvy, the first having occurred fifteen years ago, and prior to this last illness he had lived exclusively on ghee, rice, bread, and curry for five months, and on salt rations for four months more—so that he had, in fact, tasted little or no antiscorbutic food for at least nine months. J. O. signed articles and went out in the ship to Calcutta after a stay on shore of forty-eight hours only, having just returned from a voyage of five months' duration. The vessel in which these men returned home occupied 140 days on the passage, and touched nowhere. The provisions are reported to have been of middling quality, and the lime-juice was given and taken regularly. Six men were more or less affected with scurvy out of a crew of twenty-eight hands, but the men specially noted above were far more severely attacked than the rest.

E. S., aged 22, and T. G., aged 47, were sent to the *Dreadnought* Hospital on April 11 from the ship *Blanche*. Their legs were semi-flexed and greatly discoloured, their gums were swollen, and they were so excessively weak as to be hardly able to crawl upstairs. No other special symptoms existed. They had been landed after a long passage from the north-west coast of South America, but made no complaint as to the quality of provisions.

J. F. O., aged 34, J. C., aged 20, C. J. W., aged 20, F. L., aged 21, and C. A. R., aged 29—four Swedes and one Irishman—were admitted from the Swedish barque *Rosalie* on April 12, which vessel occupied more than four months in the passage from Batavia to Portland. These men were sent from the latter port to Greenwich by railway; one was carried and all were assisted into Hospital. The former exhibited all the usual symptoms of scurvy in a very marked degree, the gums almost concealed the teeth, and some of the latter had dropped out; there was also a tendency to syncope. Another of these cases exhibited some amount of scorbutic dysentery.

All these patients convalesced rapidly. Ten-grain doses of chlorate of potash, with decoction of bark, were given to four, and iron to one of them, whereas the rest were treated with a placebo mixture, and all were rationed on full meat diet (beef and mutton alternately), potatoes, greens, milk, lime-juice, and porter. The average stay in Hospital was ten days, and the cripple who was carried in was walking about his ward a week after admission.

Mr. Harry Leach thinks the following deductions worthy of record in connexion with these cases:—1. That no amount of lime-juice, however good its quality may be, and however regularly it may be taken, will of itself keep men free from scurvy beyond a certain time, if they are continuously fed on what may fairly be termed a poisonous diet. 2. That the five cases of scurvy received from the Swedish barque are readily accounted for, because the crews of Norwegian and Swedish vessels are not regularly supplied with lime-juice or any other special antiscorbutics, and it is a well-known fact that in consequence most of their vessels that go to ports beyond either the Cape of Good Hope or Cape Horn bring home scurvy-stricken crews. 3. That a man who has had scurvy once is, under analogous circumstances, more liable than others to a recurrence of the disease. 4. That though a great diminution of scurvy in the British mercantile marine has followed as a consequence of the operation of the Duke of Richmond's Act, it is highly desirable that shipowners should unite with the Marine Department of the Board of Trade and institute such alterations in the scales of diet now in use on long-voyage ships as shall render the "lime-juice" clauses of the Merchant Shipping Act (1867) unnecessary.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the general monthly meeting, on Monday, June 3, the Earl of Rosse, B.A., D.C.L., F.R.S., Vice-President, in the chair, Charles Edward Beevor, Esq., Frederick John Blake, Esq., Maurice Barnard Byles, Esq., C. F. Hancock, Esq., B.A., George Augustus Huddart, Esq., Joshua G. Kershaw, Esq., Henry Samuel King, Esq., Athol Maudslay, Esq., and Mrs. Ciecopiere St. Clair, were elected Members of the Royal Institution. The Managers reported that they had appointed William Rutherford, M.D., F.R.S.E., Fullerian Professor of Physiology.

THE REGULATIONS FOR A CONSTANT WATER-SUPPLY.—The Paddington Vestry has adopted a resolution recommending that the regulations for a constant water-supply, proposed by the water companies and amended by the Metropolitan Board of Works, be submitted to some independent Medical authority, such as the Association of the Medical Officers of Health, in order to obtain an opinion from a sanitary point of view generally, and in particular as to the expediency of using lead pipes.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JUNE 8, 1872.

CO-OPERATIVE TEACHING.

An article in last week's *Saturday Review*, entitled "Recent Changes at Oxford," chronicles very important alterations which can scarcely fail to prove reforms in the system of teaching at that University. These changes, which are probably as real and as important as the admission of non-collegiate students to university privileges and the abolition of tests, have been brought about very noiselessly, and have attracted far less of public attention than the last University Boat-race or Commemoration. They may be summed up under two heads—first, the co-operation of the tutors of several colleges for the purpose of teaching on a larger, broader, and more complete scale; and the second, the revival of the professoriate, and a consequent step towards the extinction of the coach system. There are nineteen colleges at Oxford, and the system which prevailed until recently there had its foundation in the theory that each college was bound to provide its students with special and complete education in all subjects necessary for the degree examinations. Each college, therefore, kept a staff of tutors or lecturers who year by year travelled over the same round with classes of a few men—perhaps from four to sixteen. It is easy to see that such a system was open to many objections. In the first place, it was a great waste of teaching power. In the second, as all the lecturers or tutors at the nineteen colleges were going all the year through the same routine of work, there was no impulse or opportunity given for any of them to strike out a line of his own by directing his energies to any particular section of the department of learning which he was obliged to treat as a whole. Thus all incentive to original scholarship was lost. Lastly, the system presupposed a much larger amount of teaching talent than experience shows we have a right to expect amongst a limited number of men, however well educated. To remedy these evils, three or four years ago, the simple plan of a combination of colleges for organising college lectures was adopted, and it is working well. Two unions, or federations, of colleges have been formed for the purposes of the classical school, one consisting of six colleges, the other of three. At the end of each term the lecturers or tutors of the federate colleges meet together and arrange a joint scheme of lectures, each teacher undertaking the book or subject on which he feels himself most competent to teach. The joint course of lectures is open to the students of all the combining colleges without any extra charge, and they still have the opportunity of going to their respective college tutors for private instruction. Students of other colleges are admitted to the lectures on the payment of a small fee. In like manner five colleges have combined to organise a course of mathematical lectures, and the tutors and lecturers on modern history of fourteen colleges have entered into a similar union, to give a full course of teaching on this very wide subject. It is very safe to prophesy that, unless thoroughly mismanaged, this system of co-operative teaching must be of enormous benefit to the Oxford students.

The other reform is the revivification of the Oxford professoriate. Most of us remember Hogarth's caricature of the Oxford lecture. The marvellous representation of various shades of stupidity, silliness, vacuity, and fatigue in the bewigged and trencher-capped audience, and the personification of self-satisfaction, pomposity, and determination-to-read-through-his-manuscript, regardless of his hearers, portrayed in the lecturer—who, as tradition goes, was one Mr. Fisher, of Jesus College—who was wag or fool enough to sit to Hogarth for the portrait. But the state of things ridiculed by the genius (whom an Oxford don, irate at the satire, stigmatised as "an uneducated painter") was certainly a better one than that which prevailed ten or fifteen years ago, when professorships had become mere sinecures, many of the holders giving no lectures at all, and others reading a few *pro formâ* which nobody attended. The result of this abuse, as may be supposed, was that the University, as a university, was practically what that arch-traitor to thorough education, Mr. Lowe, wishes all universities to become—a mere examining board, and not a teaching body. The real education at Oxford was in the hands of the college tutors and the coaches. But of late years a great change has come over the professoriate. A few distinguished men who were elected to professorships set the example of turning the University lectures into real practical courses of teaching. The leaven has worked, and now, as the writer of the article in the *Saturday Review* states, out of the whole number of forty-two professors thirty are delivering regular courses of lectures to a class, while of the rest nearly all have announced one, two, or more occasional public lectures, or else are giving private instruction. Not merely the University and its students, but the outside world of science and literature has already reaped the benefit of this regeneration.

We have dwelt thus long on these changes and reforms at Oxford because we think they have their lesson for our Medical colleges, schools, and teachers. Here in London we have not nineteen colleges, it is true, but we have ten Medical schools besides the two Royal Colleges, where there are endowed professorships and lectureships; and the Chelsea Garden, where the Master and Wardens of the Apothecaries' Society have instituted a course of botanical lectures. Surely amongst all these Medical teaching bodies there must be an immense waste of teaching power and a commensurate necessity for co-operation. It is no exaggeration to say that ten courses of lectures on physiology, botany, chemistry, and other Medical subjects, all going over the same routine, and all addressed to the comparatively small class of Medical students in this metropolis, are at least seven too many. They are too many, because, out of so large a number as ten, some courses must be very inferior to others, and this would be the case if the size of the classes were equal; but how much more likely is it to be so when, as at some schools, the numbers attending the classes are so small as to be absolutely unremunerative. Teaching power is not the attribute of every man. Men may be excellent practical

Physicians and Surgeons—nay, excellent anatomists, physiologists, chemists, or botanists—and yet be utterly unable to impart to others a knowledge of what they know themselves. But our present system of Medical education presupposes that every man who is able to take a Hospital appointment is fit to teach. Never was a greater fallacy; but an equally great one is, that every Hospital must have a full Medical school attached to it in which all its honorary officers are to find chairs, which will indirectly remunerate them for their services. These two fallacies are at the root of the low standard of Medical education in the present day. The large number of rejections at the examining boards has lately been severely commented on in various quarters. We believe that the fault is neither with the examiners nor with the examinations, but with the faulty Medical education given in London and the provinces. One great reform would be a co-operation amongst the Hospitals of London similar to that which has been organised between the Colleges of Oxford. Let three or more Hospitals combine to institute full courses of lectures, each course not necessarily to be delivered entirely by one man, but special knowledge and aptitude for teaching to be secured for each subject, whether forming a course or part of a course, in succession. Let thus incentives for the cultivation of special branches of knowledge and of teaching power be afforded, and let the student be certain that he will receive from his lecturer not a mere dry *réchauffé* of the bones of worn-out text-books, but the muscle and marrow of his own study, observation, and experience, and we may be sure that a new and bright era of Medical discovery and research on the one hand, and of the diffusion of advanced Medical science on the other, will be inaugurated.

CHEMICAL CLIMATOLOGY.

Our knowledge of the composition and properties of the atmosphere seems to be going on at an increasing rate. It is not quite a century since we learned the existence of oxygen. Within the memory of living people there were instruments known as *eudiometers*, to measure the quantity of oxygen, upon which it was supposed that the purity of the air depended. But, on the other hand, the results of imperfect experiments led to the supposition that chemistry was unable to detect any difference, so far as quantity is concerned, between the air of the highest mountain-top and that of the crowded city. Still, beginnings of a more exact knowledge were made here and there. The presence of carbonic acid was estimated by De Saussure at the end of the last century; but so far as we know, it was first measured for practical purposes by Dr. Bence Jones about twenty years ago, during some observations on the ventilation of St. Pancras Workhouse. Liebig estimated the ammonia, in that splendid work in which he showed that the bulk of the growth of vegetables comes not from the soil but from the air. But so rapidly have matters now advanced, that we have before us a pretty volume on "Chemical Climatology," by Dr. Angus Smith, whose active chemical insight and powers of observation have induced him to draw the greatest possible results from the researches which it is his duty to make as "Inspector of Alkali Works"—an office which makes him the protector of all living things from poisons diffused through the atmosphere.(a)

But, courteous reader, mark the word *chemical*—for there is a *physical* climatology or meteorology which has heretofore usurped all the attention of Mr. Glaisher and the weekly reports of the Registrar-General. This includes an account of the weight of the air, of its movement, of the quantity of moisture, of its rainfall, temperature, electrical state, and opacity with clouds, the only chemical item for which a column is reserved being ozone.

But, now that *chemical* climatology is set on its legs, future tables, in perhaps no long time, will tell us—first, of the *gases* always present in the air (the oxygen, nitrogen, and carbonic acid); secondly, of the *vapours* which may be found there, including everything vaporisable (sulphurous, muriatic, nitric, arsenious, and every other species of acid); thirdly, of the *solid inorganic* substances, comprising portions of the surface of the earth, of chalk in chalky districts, of sea-salt near the sea, of sulphate of soda formed by the mutual reactions of sea-salt and sulphuric acid, of carbon, of salts of ammonia, oxide of iron in manufacturing districts, and of ashes; fourthly, of the *solid organic* impurities, such as hairs, scales, and vegetable and animal *débris*, and the like; and fifthly, of the solid organic *living* bodies, amongst which must be included not merely the lofty eagle, or the voracious hawk, nor yet the swallows, nor the flies which are found in places reeking with organic vapours, coursing their prey, just as the swallows chase themselves, and which, as Dr. Angus Smith believes, may "feed on the substances that affect our sense of smell." Below these possibly are germs, whether organised like the sporules of fungi, or merely portions of diseased bioplasm as Dr. Beale suggests, and which possibly derive nourishment from floating particles of organic matter.

It will thus be seen that chemical climatology is a pretty extensive art and science. It includes methods for measuring volumes of air (by-and-by it will attain to weights), and subjecting these to washing or other processes for separating impurities, solid or soluble. The matters so separated may be submitted to the microscope, by which the form of organic substances and crystals may be determined; chemical tests (including the most delicate refinements of Wanklyn for detecting ammonia, free or in the form of albuminous substances) may be applied to the matters dissolved, and the gases be estimated by the ordinary processes. The rain must also be examined as Nature's own result of washing the atmosphere; and it will be found that rain-water, though it may be a model of purity away from man and his habitations, yet in and near towns presents every kind of contamination—so that drinking rain-water would be like drinking the water employed in washing persons or clothes.

Amidst the mighty mass of matter accumulated by Dr. Angus Smith's industry we can but call attention to one or two samples. Let us take the quantity of oxygen, the earliest point endeavoured to be estimated by eudiometry. Dr. Angus Smith gives a series of analyses, which make it clear that mountains and great plains have a different atmosphere from cities; but, still more, he shows the amount of difference. Thus, on the north-east seashore and open heaths in Scotland, he finds 20·9990 oxygen in 100 volumes of air. In open places of London in the summer, 20·9500. In the Court of Queen's Bench one day, 20·6500.

So it may be said that all the atmosphere in *open* places (of course a crowded court of justice does not come under this category) has a *similar* amount of oxygen, and that the differences are shown in the second decimal place.

Some people, says Dr. Smith, may ask what importance can be possibly attached to such minute quantities as require a second or third decimal place to express them. In the first place, then, although a little oxygen more or less might not affect us, it is certain that the missing volume of oxygen, when deficient, is replaced by carbonic acid or some other noxious substance. "Subtracting 0·980 from 0·999, we have a difference of 190 in a million. In a gallon of water there are 70,000 grains; let us put into it an impurity at the rate of 190 in a million; it amounts to 13·3 grains per gallon. This amount would be considered enormous if it consisted of putrefying matter, or any organic matter usually found in waters. But we drink only a comparatively small quantity of water, and the whole thirteen grains would not be swallowed in a day, whereas we take into our lungs from 1000 to 2000 gallons of air daily."

(a) "Disinfectants and Disinfection." By Robert Angus Smith, F.R.S., etc. Edinburgh: Edmonstone and Douglas. 1869.
"Air and Rain: the Beginnings of a Chemical Climatology." By Robert Angus Smith, Ph.D., F.R.S. London: Longmans. 1872.

Moreover, air enters the blood directly through the lungs; it is not filtered or digested, as matters are in the stomach.

We must say in praise of Dr. Angus Smith, that his zeal for his own special branch of study does not blind him to the fact that there are other things required besides mere purity of air. Whilst the mere sanitarian puts people into shivering draughts, Dr. Smith affirms that the first demand of nature is—not pure air, but warm air. Without warmth there can be no civilisation and no morals. When men are cold they cannot sit still and indulge in study. Rough physical exercise and drink become irresistibly tempting. We have seldom seen a subject treated of more comprehensively and temperately than Dr. Angus Smith treats of chemical climatology.

THE WEEK.

TOPICS OF THE DAY.

Professors H. E. Roscoe and B. Stewart, of Owen's College, Manchester, have, we are glad to see, ventured to attack the Chancellor of the Exchequer for one of the sweeping things he said at the presentation for degrees at the University of London. Mr. Lowe is reported "to have pointed out how the endowment of Professorships naturally tended to make teaching inefficient (seeing that the revenues come in independently of the results of teaching), suggesting that those who had any money to spare for the advancement of education should rather make it available in the forms of scholarships and exhibitions." To this shallow sophism the Manchester Professors reply by recounting the effects of the endowments in Owen's College, and in the Scottish and German Universities, on the cost of education, and on the efficiency of teachers; and they point out that the evils to be apprehended by an excessive endowment of scholarships are those of a "hot-bed regimen," by which young men are induced to enter professions in which there is no subsequent career open to them. They wind up with the home-thrust—"In conclusion, sir, we cannot understand why endowment naturally tends to make teaching inefficient in the case of a professor of science or arts more than it does in that of a minister of religion or a statesman." Mr. Lowe's reply is in effect that his speech, which occupied three-quarters of an hour in delivery, was reported in a few lines; but he defends his position that it is better to give money to young men than to pay persons to teach them, on the ground that in the latter case the inducement to the teacher to work is diminished, and that the student with money in his hand will be sure to find the best teacher for himself—to both which statements facts are absolutely opposed. Nobody has ever dared to say that the endowed Professors in German and Scottish Universities have not taught well, and some of the worst types of education to be obtained in England and Wales are only open to students with money in their own or their fathers' pockets. The fact is that Mr. Lowe cannot forget that he was once an Oxford coach, and that he is now Member for the University, which, not being a teaching body, but only an Examining Board, is running the risk of pushing its functions to excess, and is open to the accusation of being the great fosterer of the grinding system throughout the kingdom, and the embodiment of the Chinese as opposed to a real system of education.

An inquest was held last week on the body of a sailor who died shortly after swallowing a black draught, bought at a shop or open surgery in Limehouse. Another sailor was made very ill for several days by swallowing a black draught from the same source. The post-mortem examination revealed a natural condition of the organs, with the exception of congestion of the brain, and effusion into the chest and pericardium. The contents of the stomach were analysed by Dr. Meymott Tidy, of the London Hospital, who detected oxalic acid, and drew the inference that probably oxalic acid had been substituted for sulphate of magnesia in the black draught. The patient had fallen down insensible after swallowing the draught, and had died soon afterwards. The owner of the shop where the draughts were purchased—a Medical man—said that they were part of a stock he bought in November from a former owner of the business. The account of the case contained in the *Times* newspaper omitted all special mention of the condition of the stomach—an important point in a supposed death from oxalic acid. But at any rate the case should furnish a warning to Medical men who keep open surgeries and chemists, not to send out medicines for the composition of which they cannot personally answer.

Dr. Poore, of Charing-cross Hospital, who accompanied the Prince of Wales on his recent tour, has had the good fortune to attend and successfully conduct through an attack of typhoid fever the Princess Thyra of Denmark. For this service he has received from the King of Denmark the Commandership of the Order of the Danebrog. Her Majesty has been graciously pleased to permit Dr. Poore to wear the decoration.

Dr. Rayner, late Assistant-Superintendent at Bedlam, has been appointed Superintendent of Hanwell Lunatic Asylum.

We have received a list of portraits of persons who have held honorary appointments in the Norfolk and Norwich Hospital from its foundation in 1771 to 1871. The portraits have been collected and placed in the Board-room by Mr. Charles Williams, Assistant-Surgeon to the Hospital. The list contains many distinguished names—amongst others those of Alderson, Rigby, Yelloly, Ranking, Goech, Dalrymple, and Crosse. Not many provincial Hospitals could show so goodly a roll of worthies.

UNQUALIFIED PRACTITIONERS.

Have we any legal machinery by which we may "stamp out" the herd of advertising quacks and people practising without any qualification? The law is by no means stringent enough to meet all cases, but surely many of the flagrant instances might be dealt with by the statutes at present in force. We are glad to notice that on Saturday last Mr. Shirley Deakin, House-Surgeon of the Male Lock Hospital, Dean-street, Soho, waited upon Mr. Knox, at the request of the board of directors, to state that a number of letters had been received by the board asking whether certain advertising and bill-distributing unqualified practitioners were members of, or connected with the Hospital, and that it was the wish of the board to make it known as widely as possible that the persons in question had no authority to refer to the Lock Hospital, or to use its name in any way. One person, who used the name of Dr. Watson, and described himself as governor of the Lock Hospital, had no connexion whatever with the Hospital, and was, in fact, unknown to the board. He held in his hand a list of persons improperly practising in certain complaints in London. These were the principal offenders, and were thirty in number. He had also a list of others in Manchester, Liverpool, Birmingham, and other large provincial towns, and he would be much obliged by the magistrate informing him of the best way of proceeding against these parties, and of protecting the public, who were not only entrapped by the aid of advertisements, but by the distribution of bills in the public streets. Mr. Knox said he would most readily afford all the assistance in his power to diminish, if he could not entirely eradicate, what he conceived to be one of the greatest scandals of the metropolis. There were two ways of proceeding: one under the Act which dealt with unqualified and unlicensed Practitioners—a conviction having some time ago been obtained at that court; and the other by bringing to that court all persons found distributing offensive bills—and if brought before him he would most certainly send them to the Middlesex Sessions for the purpose of ascertaining whether the Middlesex magistrates would be inclined to second his efforts to abate an increasing nuisance. Mr. Deakin thanked the magistrate, and promised to communi-

cate the result of the interview to the board. Surely the evil might in some cases be met by the publication of the names of the offenders in the newspapers, or by summoning them before a magistrate for falsely assuming titles.

BRITISH MEDICAL ASSOCIATION.

We understand that at the meeting of the British Medica Association, to be held at Birmingham in August this year, a feature of special interest is to be given to the annual museum, in the form of a collection of specimens, photographs, drawings, and diagrams illustrating diseases of the organs of circulation, and the instruments used in their detection and treatment. As a spacious room is to be set apart for the museum, the Committee hope to be able to display all specimens to advantage; and they further purpose to issue a printed catalogue of the contributions, which is to contain a brief description of each. The secretaries, to whom preparations are to be sent, are Mr. Bracey and Dr. Jolly, of Birmingham.

THE OBSTETRICAL SOCIETY AT BIRMINGHAM.

At a meeting of the Medical Profession of Birmingham and the district, convened by circular, and held on Friday, May 31, at 3 p.m., in the theatre of the Midland Institute (James Johnston, Esq., M.B., Physician to the Queen's and Sick Children's Hospital, in the chair), the following resolutions were unanimously carried:—

"1. That this meeting is of opinion that as the Obstetrical Society has no charter or other legal status in the country, its action in the establishment of a board for the examination of and granting 'diplomas' to midwives is not advisable.

"2. That the establishment of a local board of the resident Fellows of the Obstetrical Society in Birmingham is unneeded and most undesirable.

"3. That copies of these resolutions be forwarded to the President and Council of the Obstetrical Society of London, and to the editors of the three London weekly Medical journals."

Is it desirable to employ midwives? If so, should they be educated and examined? If so, by whom? The Obstetrical Society is a purely voluntary association; so were the College of Physicians and Surgeons, the Institute of British Architects, of Civil Engineers, etc., before they had established their claims to a charter; and if the examination of midwives be politic, the Obstetrical Society may as well do it, till some other voluntary body steps into their place. But then comes the question, Is it desirable to extend the system of employing *howdies*, as they are called in the North? Would it not be safer if every labour were superintended by a qualified Practitioner?

RINGING THE DOCTOR'S BELL.

Some time since we published the case of a boy whose tooth had been extracted by a Surgeon, who had been annoyed by the young scapegrace pulling his bell as "a lark." An action was brought against the Surgeon, and he had to pay damages. We have now to record a case somewhat similar, and in which the Doctor was again made defendant in an action. At Burnley, last week, Dr. Dean, a member of the Town Council, and in large practice, was charged with unlawfully, maliciously, and feloniously applying a certain corrosive to the forehead of Louis Calverley, with intent to disfigure, etc. It appeared, in evidence, that about a fortnight since the boy went to the Doctor's house to examine the bell-handle, which is in the shape of a closed fist. The bell rang, and the defendant came out. He took the boy into the surgery, and wrote the word "Bell" on the boy's forehead with caustic. The legal advisers on either side had a long consultation, the result of which was the withdrawal of the summons on defendant making an apology and paying costs. Undoubtedly, in the two cases, the defendants went far beyond the mark in the punishment they inflicted; but we believe no magistrate would convict a Surgeon of an offence if he gave the runaway ringer a good horse-whipping. However, all things considered, we advise our brethren on no occasion to take the law into their own hands. Magistrates deal sharply with the silly and offensive people who ring Doctors' bells for amusement. Only last week, Mr. May, an undergraduate of Trinity College, Cambridge, was charged at the police-court with ringing Dr. Ransome's bell in Jesus-lane, and notwithstanding an offer to apologise, and a good character from his college tutor, he was fined 40s. and costs.

SMALL-POX IN DUBLIN.—ISOLATION OF PATIENTS.

Dr. Robert D. Lyons, in his report of the epidemic in the Hardwicke Small-pox Hospital, Dublin, for the year ending March 31 last, says of the small-pox cases:—The admissions during that period were 612, and the deaths 121. Of the former 542 were found to have been vaccinated, 66 bore no marks of vaccination whatever, 4 were doubtful, and at least 3 had been revaccinated. Of the mortality of the non-vaccinated, only 12 out of 66 recovered; while of those protected by vaccination, 478 out of 542 recovered. Dr. Lyons adds that the mortality in different wards of the institution varied a good deal at different periods of the epidemic. But of all the wards in the institution, those which had been, as it were, extemporised presented (singular to say) a markedly favourable contrast when compared with the better organised wards in regard to mortality. These extemporised wards received in all 108 patients, amongst whom there were but fourteen deaths. He had on other occasions, when abroad, experienced very successful results in the treatment of epidemic disease in huts, tents, and marquees of the simplest construction. He was not so sure that palatial erections will be found the best for the treatment of any form of disease when tested by statistical results as to cures and deaths.

SMALL-POX JOTTINGS.

There were three deaths from small-pox during the past fortnight in Newington.——In the same period five deaths from the disease occurred in Chelsea.——There were fifty-four fatal cases of small-pox in the metropolis last week.——The return for the past week of the Aberdeen Small-pox Hospital shows:—Total number of cases admitted since opening, 214; new cases admitted on Saturday, 2; number of patients now in Hospital, 17; total discharged recovered, 162; total dead, 35.——The small-pox epidemic which has infected Edinburgh since the beginning of the winter is now considered to be virtually at an end.——In the Whitechapel district one new case of small-pox was reported last week.——In the same period one death from small-pox was reported to the Bermondsey Vestry.——Small-pox showed a decline last week in the metropolis, thirty-seven deaths only having occurred. In the two previous weeks the numbers were fifty-four each week.——Dr. Aldis, St. George's, Hanover-square, reported three cases of small-pox last week, two of which were sent to Hospital.

DISAPPEARANCE OF SMALL-POX IN PARIS.

The Paris correspondent of the *Daily News*, writing on the 2nd inst., says:—"The small-pox, after gradually declining in Paris for the last two years, has now utterly disappeared from the bills of mortality. There is not a single case in the last death returns; and yet in this country there is no compulsory vaccination, and during the war and the Commune revaccination, in favour of which there was a feeble movement at the beginning of 1870, almost entirely went out of fashion. The reward of half-a-crown which the mayors are prepared to give to any poor woman who brings her child to be vaccinated, finds few takers among the classes which entertain a prejudice against the Jennerian specific. It is very perverse of unvaccinated Paris to be free from small-pox, while the disease rages in vaccinated London; but there are the hard facts, which I leave Doctors to reconcile with their absolute theories."

TESTIMONIAL TO AN ENGLISH PRACTITIONER AT PAU.

We are always glad to hear of instances like the following in which a member of our Profession receives a valuable token of the esteem of those amongst whom he has lived and laboured. It having become known that Dr. Ottley, of Pau, was about to retire from practice, a number of his patients, friends, and Professional brethren determined on presenting him with a testimonial of their regard on his leaving France. On Tuesday, May 28, an elegant purse, bearing a suitable inscription, and containing a cheque for £328, was presented to Dr. Ottley in the name of the contributors by the Hon. Col. Spencer, the Rev. W. Tait, and the Rev. G. Brown, who added many kind expressions of regret at the departure of himself and family from Pau, where they had resided more than twenty years.

SMALL-POX AND VACCINATION IN PHILADELPHIA.

Our American correspondent writes:—

"I have several times alluded in my letters to the prevalence of small-pox in Philadelphia. It is fast dying out here, and does not seem to be increasing in New York or elsewhere; and the results are already being systematically recorded for present use and future reference. Dr. William M. Welch, Physician in charge of the Small-pox Hospital of this city, has recently published his annual report for 1871, including statistics of 1227 cases of this disease treated there. A very large number of cases have been sent there for treatment since January 1, 1872, but these will, of course, be comprised in the report of the current year. It is a well-known fact that Philadelphia has never before been visited by an epidemic of equal magnitude or malignancy; and whatever statistics may be published hereafter, embracing a history of this recent invasion in its entirety, I will send you. Of the 1227 cases admitted, 361 died, or 29·42 per cent.; the rate of mortality among the variola cases being 52·14 per cent., while among those of varioloid it was only 1·45 per cent. The distinction between variola and varioloid, however, is not exactly the one universally adopted, and might not, therefore, correspond with statistics of other Hospitals, where the line is somewhat differently drawn. Dr. Welch classifies all diseases as varioloid which have been vaccinated, and in which the rash reaches its height on or before the sixth or seventh day from its appearance; and as variola all unvaccinated cases, and all others in which the rash has not arrived at maturity prior to a period varying from the seventh to the tenth day. During the same period, in the city at large, the Health Officer reported 8114 cases of small-pox, of which 1879 died, the rate of mortality being 23·15 per cent., which is, doubtless, the largest death-rate ever known in our city from this disease. The following table, derived from Dr. Welch's report, explains itself:—

	Admitted.	Died.	Per cent. of deaths.
Not vaccinated . . .	390	254	65·12
Vaccinated in infancy—			
Good cicatrix . . .	332	33	9·93
Fair „ . . .	166	27	16·26
Poor „ . . .	301	68	22·59
Total number vaccinated . .	799	128	16·00

"All the figures given lead to the indisputable confirmation of the importance of vaccination, and especially to the necessity of legislative enactments for the protection of every new-born babe by making vaccination absolutely compulsory."

A WELL-EARNED PENSION.

The Middlesex magistrates have just granted a superannuation of £466 to Dr. William Chapman Begley, the Medical Superintendent of the male department of the Hanwell Lunatic Asylum. Dr. Begley richly deserves the annuity. He held the appointment for a period of thirty-four years, and fulfilled the important duties entrusted to him with an ability, energy, and humanity worthy of all praise. He was the efficient coadjutor of Conolly in carrying out the system of non-restraint. The magistrates, in granting the annuity to Dr. Begley, passed a warm eulogium on his conduct, and expressed a hope that "he might live many years to enjoy the pension so well deserved."

ISLINGTON MEDICAL SOCIETY.—DECLARATION ON ALCOHOL.

At a meeting of the members of this Society, held on May 28, the following resolutions were adopted:—

"That this Society does not admit that there is any ground for the belief that alcohol is carelessly prescribed by the general body of Medical men. The Society therefore protests against the recent Declaration as uncalled for, unjustly laying a large body of Professional men under a stigma, and implying a confession in which the members of the Society decline to participate.

"That this Society protests against a scientific question, such as the therapeutic use of alcohol, being made the subject of a general declaration like that lately signed by many Physicians and Surgeons. This Society, while desirous also that the Medical Profession should use its influence in favour of temperance, and of legislation favouring temperance, thinks the Profession should act quite independently of any association holding extreme views.

"That the above resolutions be published in the weekly Medical journals."

ARMY MEDICAL DEPARTMENT.

It is now stated, in well-informed circles, that the issue of the warrant so long looked for, and which is to do so much in this department and the Military Hospital Service, is stopped—it is said by the Treasury—some hitch having occurred.

FROM ABROAD.—THE LIÉGE TABLE OF FEES—THE MEDICAL PROFESSION AND THE FRENCH NATIONAL ASSEMBLY.

The frequent attempts that have been made by Practitioners of different localities to bind themselves down to tables of fees which they have agreed upon, have hitherto not proved very successful. The greater *esprit de corps* that prevails among our brethren of the Continent gives them, perhaps, a better chance of succeeding, and, as their payments are generally wretchedly low, they have more reason to renew the attempts. At all events, those of Liége have resolved to try their hands, and a report addressed to them by Dr. Hieguet contains some passages worthy of attention. He begins with a comparison of the payments made to the lawyer and the Doctor, maintaining that the notable differences which exist in favour of the former are not justified either by the nature or the importance of the services rendered. In the nature of things, the Doctor, to whom the preservation or restoration of the most precious of possessions is confided, should be paid as well, if not better. One point he lays stress upon, too, is that there is less urgency in the appeal made to the lawyer, who may consider his cases at his leisure and fortify himself with his authorities; whereas the Doctor, whether by day or night, tired, or aroused from sleep, must at once, without delay, and often without any aid, come to a decision which may be of the last importance, entailing the most serious responsibility, and perhaps even marring his prospects for life. The lawyer encounters none of the risks to life that beset the Doctor throughout his career, whether as student or Practitioner, and to which so many fall victims. While he, too, has his assured leisure and his vacations, during which he may dismiss anxieties which are ever cankering the unfortunate Doctor, who cannot even feel assured of an undisturbed night or an uninterrupted meal. If, says the reporter, the public does not remunerate us in proportion to the services we render, this is entirely our own fault, and especially is it the fault of our seniors, who, solely engaged in attracting practice and fortune by display of their titles, have done little or nothing to raise the general prestige of the Profession—when, indeed, they have not competed for practice with young Practitioners and by aid of reduced fees. However, the remedy is in our own hands, for no law or regulation has fixed the charges between Practitioner and patient.

"How, then, ought the Doctor regulate his charges? As a general rule he should follow the example of the advocate. The man of law, taking into account the importance and issue of the cause, the labour of the investigations it has rendered needful, and the position of his client, charges a lump (*globale*)

sum. And so should the Doctor demand a round sum as his remuneration. Is not what happens nowadays absurdly unjust and ridiculous? You treat a wealthy person for some serious epidemic disease—say the cholera—which will either be cured or carry him off in some hours; and if you take as a basis the valuation of your charges by the number of visits, you will perhaps make a demand of twenty or thirty francs. But if the same person had become the subject of an affection unattended with danger, and not of a contagious character, and liable to relapses—as in neuralgia, for example—then your bill may relatively amount to a considerable sum. Is this just or reasonable?

"When in the same house there are several patients belonging to the same family, some of our *confrères* ask only half the price of a visit for the second or third patient, etc. We cannot give our approval to this mode of proceeding—in fact, it is not the journey to the house which constitutes the service rendered by the Doctor, and which has to be remunerated, but the attention which he has to pay to the patient; and the same attention to his case is required for every patient, however near they may be to each other. By such a rule we should act unjustly in charging a patient who lived next door the same fees as one who lived in a more or less distant street. I have yet to learn that a lawyer does not claim his entire fee when he defends the interests of a client in two different trials, or of two clients who are relatives residing under the same roof. Therefore the Doctor ought, as far as possible, make his charges *in globo*. But as there are many circumstances under which this is not possible, as in slight affections, calling for few and separated visits, we must also have a charge based upon the number of these. For persons who are able to pay a Medical man, we would fix three francs as a minimum charge for a single visit. When the patient moves in a higher circle we should charge more, and even double this sum."

The following is the tariff adopted by the Medical Practitioners of Liége:—A simple visit or advice given by the Doctor at his own house, 3 fr.; a first visit, an urgent visit, one repeated at request in the evening or at a fixed hour, 6 fr. (the charges for visits paid to patients suffering from contagious diseases "should be left to the appreciation of the Practitioners"); a consultation during the day, 15 fr., and in the night 25 fr.; for every hour passed with the patient during the day 15 fr., and during the night 20 fr.; night visits (from 10 p.m. to 7 a.m.), 15 fr.; certificates, according to their nature, from 5 fr. to 20 fr.; a written opinion, 5 fr.; visits beyond the town to be charged at 20 fr. the league, the expenses of the journey being also paid by the patient. In minor Surgery the following charges are to be made:—(1) Venesection, extraction of a tooth, cauterisation, or dressing, 5 fr.; (2) application of a speculum, opening an abscess, catheterism, application of a bandage, seton, or issue, and vaccination, from 10 fr. to 15 fr.; (3) reduction of a hernia, tapping a hydrocele or an ascites, 25 fr.; (4) reduction of a dislocation or fracture, and paracentesis in empyema, independently of ulterior treatment, 50 fr.; a simple accouchement, 75 fr.

Notwithstanding the presence of above thirty Doctors of Medicine in the French National Assembly, the prospects of Medicine do not put on a very promising aspect in that supreme body. Many, indeed, regret the haste with which an appeal to it has been made for a reorganisation of the practice and teaching of Medicine and various other matters appertaining to our art. It would probably have been far better to have waited until the Assembly had acquired more deliberative power than it now seems to possess, or even to have deferred these subjects for the consideration of its successor—to be elected, it is to be hoped, in less exciting times. There would then have been time to have submitted the matters intended to be brought under its cognisance to a preliminary consideration by the Profession itself, which would have much aided the future deliberations of the Legislature. In the absence of this, there is danger of the Assembly passing some crude measures without any knowledge of their probable operation; and as its decisions are controlled or corroborated by no second Chamber, the Profession may unexpectedly find itself involved in some dilemma, the fruit of hasty, ignorant, or prejudiced legislation.

That all is not going on very well there may be concluded from a recent debate on the Bill for the "Composition and Organisation of the Administrative Commission of Provincial Hospitals and Hospices." These are bodies upon which devolves the entire management of Hospitals, and, therefore, in their composition the Profession naturally desires to be represented. Consequently, after the members of the Commission had been selected from the municipalities, the council-generals, the prefecture, the courts of justice, chambers of commerce, and the pastors of the different religious persuasions, and it was found that there was no mention made of any Medical element, Dr. Chevandier, one of the Doctor-deputies, made a motion that the Doctors of the canton or the Council of Hygiene of the arrondissement should also nominate a member of the Commission. He supported it by various arguments, familiar enough to our readers, as demonstrating the utility, or rather the necessity, of a Medical member for the due consideration of questions of Hospital construction and management. He was listened to but impatiently, being frequently interrupted by the ominous "Divide!" However, Professor Bouisson, Dean of the Faculty of Montpellier, followed, and having the ear of the Chamber, and being an eloquent speaker, was listened to attentively, he having had the tact to commence his discourse with complimentary generalities as to the great value he attached to the non-Medical elements of the Commission. Afterwards he went on to dwell upon the importance of there being also a Medical member, for among other reasons, the interests of clinical instruction, which mere administrative commissions too often unduly restrict. Here he struck upon a sunken rock, as he soon found out to his dismay. After expatiating upon the many sacrifices which Medical men make in the service of the poor, and upon the readiness with which they at all times aid the cause of progress by the light of science (a sentiment responded to by cheers), he proposed a modification of M. Chevandier's motion—viz., "That when there is in the chief town of a department a Faculty of Medicine or a preparatory School of Medicine, a member of the Commission shall be elected by such body." This seems a modest proposition enough, but the Reporter of the Committee on the Bill was not of that opinion, and, after complimenting Professor Bouisson as one of the most illustrious representatives of the glorious Medical science of France, he declared that he could have nothing to do with his motion, which would create a new electoral body. When the Commission wanted Medical advice it would know where to look for it. And then he added, amidst loud cheers, that M. Bouisson's argument in favour of clinical teaching was a powerful reason for rejecting his motion; for did it not go to place science before charity?

"When I heard the eminent man who has just addressed you," concluded the Reporter, "speak thus of the interests of science and the needs of the clinic, and perceived under these words the necessity of having subjects for study and experiment, and when he spoke of the possible discussions on questions of this kind, I felt that we were even more right than we supposed ourselves in opposing the motion."

The amendments were both lost. If this is a specimen of what the Profession has to expect at the hands of the Assembly, we can only wish it a happy deliverance from such friends.

PARLIAMENTARY.—SURGEON-MAJOR LOGIE—PUBLIC HEALTH (SCOTLAND)—INFANT LIFE PROTECTION—PUBLIC HEALTH BILL—SUPPLY—MILITIA SURGEONS.

In the House of Commons, on Thursday, May 30,

Lord Garlies, amid repeated manifestations of impatience, more especially from the Ministerial side of the House, put a long question to the Secretary of State for War on the subject of a reprimand which Surgeon-Major Logie had received for making a report (confirmed by two other Surgeons and other independent witnesses) to the effect that, owing to effluvia from drains, part at least of Windsor Cavalry Barracks was unfit for occupation.

Mr. Cardwell said he was not surprised that the House should have manifested some signs of impatience at a detailed question of that kind, because it was quite open to an officer who felt himself aggrieved by any reprimand which he might have received from the Field-Marshal Commanding-in-Chief to make a proper representation through his superiors, which would most certainly be attended to by his Royal Highness. He submitted to the noble lord, who had himself been an officer in the Guards, that it would be more likely to conduce to discipline in the army that such a course should be pursued, than that *ex parte* statements should be placed on the paper of the House in the form of a question addressed to him. As the question had been put, perhaps theHouse would allow him to give an answer. (Cries of "No, no.") Well, then, since the House did not wish that he should give an answer, he would suggest to the noble lord to advise Surgeon-Major Logie to make a representation through his commanding officer to the proper quarter.

Lard Garlies thought it would be satisfactory to the House if the right hon. gentleman answered the question. ("No, no," and "Hear.") He wished to know whether the right hon. gentleman declined to answer.

Mr. Cardwell: I can only repeat what I have already said. I collect from what has occurred that it was not the wish of the House that the question should be put, and it is not their wish that I should proceed to give an answer.

Lord Garlies: Well, then, I beg to give notice that I shall call the attention of the House to this subject on the earliest opportunity.

The Public Health (Scotland) Supplemental Bill passed through Committee.

The Infant Life Protection Bill was read a third time and passed.

On Friday, May 31, in reply to a question by Sir M. H. Beach, Mr. Stansfeld said that the Public Health Bill contained no clause which imposed a fresh charge upon the public revenue. Whatever charges there were would be voted from year to year.

In Supply, some opposition was made to the votes for the Medical and Cattle Department expenses of the Privy Council. The votes were ultimately passed.

On Tuesday,

Colonel Corbett asked the Secretary of State for War whether he was now prepared to state how Militia Surgeons were to be remunerated for the losses they would sustain by the new regulations, which transfer those portions of their duties to the Army Surgeons for the performance of which the greater part of their emolument had hitherto been derived.

Mr. Campbell (in the absence of Mr. Cardwell) said his right hon. friend had nothing to add to what he had previously stated on the subject. If any claims were preferred on the part of Militia Surgeons, his right hon. friend would at all times be ready to give them due consideration, but he had not prepared a general scheme for compensation to those officers.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Professor Holmes commenced his series of lectures on "The Surgical Treatment of Aneurism in its various forms" at the Royal College of Surgeons on Monday, June 3. In his first lecture, after briefly acknowledging the honour which he felt had been done him by being appointed Professor of Surgery and Anatomy in the College, he stated that his reasons for selecting the subject of aneurisms for his lectures were chiefly three—viz., the length of time since it had been dealt with by any of the able Surgeons who had been his predecessors in that chair, and the great change—or, in fact, the revolution—which had been brought about in the meanwhile in the treatment of aneurisms; because the treatment of aneurisms, besides being a subject of immense importance, was one about which there was much doubt and difficulty; and because so much interesting and valuable material, both in the literature and the pathology of the disease, had accumulated within the last few years, that he thought if he could bring the whole together into a uniform and intelligible phase much good might arise therefrom. The Professor then referred to the treatment of aneurism—which, though admirable, is now obsolete—as described by Guthrie forty-three years ago in his work on "Diseases and Injuries of Arteries"—one of the English classics of Medical literature. At that time the treatment by pressure was in its infancy, and Guthrie barely notices it; and though Wardrop's operation was more fully described, Hunter's method was regarded by him as the only important mode of treatment. Other plans now occupy important positions, such as that of flexion of joints, which has been sometimes rapidly effective; and the method of rapid pressure under chloroform.

In the treatment of thoracic aneurisms Mr. Holmes warns us that the various methods are not to be repudiated simply because hitherto they have been unsuccessful.

After mentioning that the time at his disposal would not permit him to discuss the pathology and symptoms of aneurism, nor enumerate statistics except for the purpose of supporting arguments which he used, and after acknowledging the services he had received in his investigations from a great many—especially the Dublin Surgeons, and more particularly Dr. William Stokes—the Professor went on to state the propositions which he intended to bring under notice in these lectures. The first was that no form of aneurism is to be regarded as incurable. Aneurisms of the arch of the aorta are not necessarily so, for judicious Medical treatment is almost always attended with good results, and the partial consolidation of the tumours by these means by delaying their progress amounts well-nigh to a temporary cure. The objection which has been sometimes raised to such partial consolidation—viz., that it causes a corresponding increase in some other part of the sac—is theoretically and practically untenable, because the increase of an aneurism is a process of actual growth attended with softening, and sometimes of inflammation of the sac, and is not due merely to the mechanical influence of the blood.

In admitting the difficulties attached to any attempt to cure a *fusiform* aneurism, especially such an one as was exhibited extending from the innominate to the axillary artery, the Professor pointed out that aneurisms of this shape were fortunately less painful than other forms. Regarding growing aneurisms of the great vessels of the thorax as fit and fair cases for treatment, the question arises, What means have we at our disposal? The answer given is, Three—first, Medical treatment; second, Brasdor's operation; and third, galvano-puncture, omitting, however, all consideration of the method of the late Mr. Moore, which besides being ineffective is unquestionably dangerous. Mr. Jolliffe Tufnell has exhausted the subject, first prominently brought forward by Valsalva, of the Medical treatment of aneurisms; but as to the effect of drugs, Dr. Bristowe's opinion must receive sanction—viz., that there is no Medicine which can bring about spontaneous coagulation of blood in an aneurismal sac—for were this the case, such a Medicine would be itself dangerous, as being liable to effect coagulation in other parts of the vascular system. Moreover, aneurisms have been known to develope themselves while the subjects of them have been under the influence of lead, or undergoing a course of treatment by iodide of potassium.

No Surgical treatment of any kind is justifiable for internal aneurisms until Medical means have been fairly tried and failed.

The second proposition advanced was, that there is definite proof of the good effects of Brasdor's operation, when employed for innominate aneurisms.

After alluding to the difference between Brasdor's operation and the method of Wardrop, the theoretical reasonings by which the adoption of Brasdor's mode has been recommended were stated. Hodgson, however, must have the credit of first employing it from a consideration of the pathology of the disease. The Professor produced some pathological facts showing the effect of the spontaneous distal obliteration of arteries in innominate aneurism; and he drew the conclusion that in those cases where the spontaneous distal obliteration of the subclavian artery has taken place, the distal ligature of the carotid may be trusted to produce complete obliteration of the sac. An instance of the cure of an innominate aneurism from the distal impaction of a clot in the carotid was given. This was exactly analogous with a case of the distal ligature of the carotid by Dr. Wright, of Montreal. Professor Holmes also pointed out the little advantage likely to ensue upon the ligation of the subclavian in the third part of its course. The large size of the branches which come off from the first part of the subclavian allow such a large quantity of blood to flow on through the sac, even after the direct supply to the upper extremity is cut off, that the aneurism is not put under the conditions necessary for the deposit of a laminated clot. Attention was drawn to the manner in which a clot extends into the aneurism from the ligatured or obstructed vessel, and drawings of specimens illustrated how the portion of the sac nearest to the mouth of the ligatured artery becomes gradually solid from deposited fibrine.

"THE LONDON HOSPITAL SCANDAL."

(*From a Correspondent.*)

SOME time has now elapsed since a correspondent suggested that all the facts and documents connected with the above subject should be published. These facts are stated by two of your contemporaries to be fully known to them. They, nevertheless, whilst studiously withholding their publication, have not hesitated to try to clear Mr. Rivington and to throw discredit on Mr. Maunder. They have thus assumed the position of irresponsible judges, who give their award without stating the grounds upon which it is based. By this suppression of the case they seek to impose their own decision upon the Medical Profession, giving their readers no opportunity of judging for themselves, or of knowing how far the decision is justified. This course of proceedure is so entirely at variance with the course of law, of justice, and with the common practice of Englishmen, that it is impossible not to excite suspicion that the case is one that cannot conveniently be stated.

To burke the case, and then to declare that under no circumstances can one member of a Hospital staff be justified in giving information concerning the conduct of a colleague to those in whom the government of the Hospital is vested, is simply monstrous. There are two hypotheses, at least, under either of which such justification would exist:—First, there might arise circumstances so flagrantly dangerous to the reputation of the Hospital that they ought not for a moment to be concealed from the governing body. Secondly, the constitution of the Medical staff might be such that courageous and honest concerted action could not be counted upon, or might be too long delayed. We do not wish to insinuate that either of these hypotheses applies to this case. But the persistent suppression of the facts seems to suggest that one or the other, or both, are true. It is obvious that no man can be rightly condemned even for the perpetration of what *primâ facie* is the most heinous offence, unless the whole facts leading up to it—the apparent crime—are investigated. For example, one man shoots another. *Primâ facie* this is very wrong. But will it be said that under no circumstances it is justifiable to shoot a man down? It may be found, under a properly conducted trial, that the man so shot was trying to take the life of the man who shot him. To pretend to decide upon an act without reference to its causes is not very logical or scientific.

The position appears to be simple enough. If your contemporaries are anxious for the truth, and to enable their readers to form a just and satisfactory opinion, let them state the case, as well as their verdict. Mr. Maunder has openly and repeatedly challenged them to arbitration. From this they shrink. Why? They know best. It is not generally those who are confident of having done right who shrink from free inquiry. We cannot be expected to bow to the dictum of those Rhadamanthine journalists who first castigate, then hear.

It is quite certain, however, that open inquiry will be demanded by the public and by the governors of the London Hospital. In the interest of the Hospital it must take place. To be satisfactory and final, that inquiry must be full, fair, and open. The reference must not be limited to parts of the case, but must embrace the whole. The court of arbitration must fairly represent the public and the Hospital as well as the Medical Profession. Mr. Rivington and Mr. Maunder must both have the opportunity of being represented upon it. A court confined to Surgeons alone would not carry complete confidence; Physicians also must be represented. The question of the relations of the staff to the governors is a wide one, which cannot be decided by Medical men alone. A court from which laymen were excluded could not render a satisfactory or final decision.

A STARTLING statement is contained in the report of the Medical Officer of Health for Bermondsey, laid before the Vestry on Monday last. He says that for three months the Southwark and Vauxhall Water Company have been supplying water to the district contaminated with gas-tar. "As this is still continued," adds the Doctor, "I think the Company should be called upon for an explanation."

THE FIRST REPORT OF THE LOCAL GOVERNMENT BOARD.

(*Continued from page 580.*)

DISPENSARIES.

CONSIDERABLE additions have been made during the past year to the number of Dispensaries, and at the date of the Report there were thirty-seven in working order, six in course of construction, and seven more in contemplation, making a total of fifty. These were distributed through twenty-seven unions and parishes.

The report contains the following observations on the subject of the register which is required to be kept by the Medical Officer at each Dispensary:—"The Medical Register, with its alphabetical index, supplies an easy mode of referring to the treatment pursued in each case, and of testing the grounds for any complaint that may be made. It supplies, also, valuable material for the Medical Officer of Health of the district, to whom, during office hours, it is always open; and should an adequate registration of disease in public institutions hereafter be found possible, its utility will be still more apparent. Equally beneficial are its results to the District Medical Officer himself. Working in greater publicity than heretofore, his sense of responsibility is heightened, and his energies stimulated."

The Report refers to the regularity of the attendances of the Medical Officers generally at the Dispensaries, and also to the mode of establishing an adequate control over the expenditure of drugs.

We look in vain, however, for any indication of an intention to extend to the provinces, or at all events to large towns, the system which the Report admits to have answered well in the metropolis.

PUBLIC HEALTH.

We next turn to the administration of the laws relating to the public health. This is treated of in a separate report by Mr. Simon, who says of the epidemic of small-pox—"It was marked, first, by the extraordinary multitude of persons whom the disease attacked; and, secondly, by the extraordinary intensity of the disease in its individual cases. To illustrate the latter point, it may suffice to mention that at the London Small-pox Hospital, where 950 cases were treated during the year, the deaths in proportion to the cases were nearly twice as many as the average experience of the Hospital for thirty-two years would have prognosticated. . . . The present great epidemic of small-pox is not confined to our own country. In the chief towns of Holland, where vaccination is non-compulsory, and where, as a rule, the children are long left unvaccinated—in Hamburg, with non-compulsory vaccination—in Paris, where not only vaccination is non-compulsory, but where also, at least some years ago, there were strong grounds for suspecting the quality of much of the current vaccination—in all these places the epidemic seems to have raged with very much more severity than even in London; and it is stated that Hamburg, which, though having but a tenth part of our London population, suffered nearly two-thirds as many deaths as London, has now, under influence of this terrible suffering, been led for the first time to pass a law of compulsory vaccination."

The report then refers in detail to the proceedings taken by the department for securing the strict enforcement of the laws relating to vaccination and to the removal of nuisances and prevention of infectious diseases, with the view of stamping out the epidemic.

On the subject of the means for the prevention of disease the following observations are made:—"The extensive diffusion of small-pox in England, like the great scarlatinal epidemic of two years ago, brought into prominence the evil results of the general want throughout the country of Hospital accommodation for cases of dangerous infectious disease."

With regard to the steps which were taken with the view of securing revaccination when necessary, the Report remarks that "early in the London epidemic it became the duty of the department to issue for general information a memorandum on the use of revaccination, as an additional safeguard which persons who have been vaccinated in infancy ought in general to adopt at about the age of puberty; and with this memorandum were issued also some suggestions for Medical Practitioners with regard to the supply of lymph for revaccination. The epidemic brought into strong relief two popular errors with regard to revaccination—first, the error of

not having it performed on each person (irrespectively of any immediate alarm of small-pox) on his attaining the above-mentioned age; and secondly, the error of seeking under panic to have it performed indiscriminately again and again."

Mr. Simon proceeds to comment upon the visitation of cholera to this country which was anticipated during last year:—"The second exceptional business of the Medical Department in the year 1871 depended on there being again in the summer some alarm of Asiatic cholera. Having for nearly two years been in Russia, and since August, 1870, more or less in St. Petersburg, the disease in the spring and early summer of 1871 spread somewhat considerably in the Baltic provinces of Russia, and at the end of July began to touch the contiguous parts of Germany, where soon afterwards Königsberg suffered most severely. With cholera actually epidemic at St. Petersburg, Cronstadt, and Riga, and likely soon to become epidemic at ports still nearer to England, it was evident that ships from the Baltic might in certain cases be a source of danger to this country. At first the danger was comparatively remote, in the sense that any sailor or passenger who had caught cholera in some Russian port of the Baltic would probably have ended the infectious stage of the disease in death or convalescence before the arrival of his ship in English waters; but afterwards, as more westerly points in succession got infected, including (early in September) Hamburg and Altona, the chances were greatly increased, not only that ships might arrive having had cholera on board, and with bedding and other things in need of disinfection, but also that an occasional patient, at the height of the disease, and pouring forth infective discharges, might be brought on shipboard into some English port; and it was therefore very satisfactory to know that, almost universally, fair provision for any such casualties had been made. The cases in which port authorities actually had to treat particular ship-arrivals as infectious were, I believe, very few; almost universally they were cases were death from cholera had taken place during the transit; and I know only of a single case—namely, at Hartlepool—where the authority had to receive into Hospital a cholera patient brought living into the port."

REVIEWS.

An Exposition of Fallacies in the Hypothesis of Mr. Darwin. By C. R. Bree, M.D., F.Z.S., Senior Physician to the Essex and Colchester Hospital, &c. London: Longmans. 1872. Pp. 418.

The author of this work shows himself to be an original observer in natural history, an acute critic, and impressed with deep religious feeling, although religion is not offensively obtruded, and there is none of the *odium* or bitterness which render theological controversy so painful to most persons. He attacks Darwinism root and branch, and gives us an elaborate and continuous criticism, not only of Darwin himself, but of all who have supported Darwinism. He begins with Tyndall, whose views he criticises so far as they uphold the correlation of physical and vital forces, or the view that the germination of a grain of wheat is but the modification of the physical force which governs crystallisation, and that life, as a whole, in all its processes of production and reproduction, is a necessary result of the existence of heat and motion. He next, under the title of the "Physico-Psychical Argument," takes up Mr. Herbert Spencer's biological views, and argues against evolution in favour of special creation. Mr. Darwin's own works then come under review, beginning with "Animals and Plants under Domestication," and going on to the latest essays on Sexual Selection. After this, Mr. Darwin's supporters in turn are weighed and found wanting, and amongst them Mr. Wallace, Professor Huxley, Sir C. Lyell, and Professor Häckel. Mr. Darwin's supposed line of descent from the ascidians to man is analysed and condemned, and the work closes with an eloquent vindication of the teleological argument, enlivened and fortified with extracts from those eloquent lectures on the "Principle of Least Action in Nature," by Professor Haughton, which we had the gratification of printing in the *Medical Times and Gazette* of last year. When we add that there is a copious analysis of the views of Agassiz, Owen, Mivart, Flourens, Beale, and others, with a gallery of portraits and a genealogical tree of our Darwinian ancestors, it will be seen that Dr. Bree's work covers a great deal of ground, and enables persons who are not conversant with the subject to gather the gist of the arguments used on either side.

We can only indicate in general terms the line which Dr. Bree's arguments take. His work is an evidence of that reaction which is now generally felt against any doctrine that is tainted with the slightest suspicion of atheism, materialism, or necessitarianism. He fights against "evolution" so far as it may be supposed to be governed by "Necessity," or by "Law," without the ever-present influence of the Lawgiver. If we understand him aright, however, he does not object to evolution *per se*, as inconsistent with our notions of the Divine Being, though he does not believe in it. "It will be noted," he says, "that there are two distinct kinds of evolution advocated by different schools. That which is taught by Mr. Darwin, Mr. Huxley, and Mr. Herbert Spencer is founded upon the operation of physical forces and secondary laws, without the supervision and guidance of an exterior power. The other kind of evolution is adopted by Owen, St. G. Mivart, and such able writers as the reviewers of Darwin's work in the *Edinburgh* and *Quarterly Reviews* for 1871; and this is simply an expression that evolution is the mode of creation, and that the Creator is the ever-present and guiding power by which it is perfected, and that such evolution may occur, and probably does occur, *per saltum*."

As a short practical comment on this, we cannot help saying that the safest plan is to regard the Deity, so far as we may venture to do so at all, as having both kinds of operation. It is difficult to conceive of an Eternal Being to whom past, present, and future are alike known and predetermined, acting *from time to time*, and not acting according to a settled law, which must be perfect; it is equally impossible to conceive of Him as absent from, or otherwise than perpetually upholding all things. To quote St. Ambrose's hymn,

> "Rerum Deus tenax vigor
> Immotus in se permanens,"

or, as it was Englished by Mason Neale,

> "O God, Creation's secret force,
> Thyself unmoved, all motion's source!"

If we understand Dr. Bree aright, his great contention is for the acknowledgment of a Creative Power, which shall "preside over all the changes of His creation," and who shall "guide, direct, and mould into shape, and call into being every living thing in the vast world." But whoever believes thus of the Creation and the Creator is surely at liberty, in the absence of Revelation to the contrary, to conceive of the Deity acting by secondary laws. "Let the waters bring forth," says the Book of Genesis. The Psalmist, too, says of the works of Creation, "He hath given them a law which shall not be broken."

The doctrines of natural selection, or survival of the fittest, and sexual selection are dismissed, as wholly unable to account for the origin of species, and as introducing into the plan of creation the notions of the "haphazard" and the tentative, where all is arranged on a plan, and perfect for its own ends from the first. Certainly our author does not believe in evolution of a casual order; still, he intimates that the Creator has caused "some of the varied masses of life which people the earth" to become extinct, and "others to assume new and varied forms," and therefore countenances the idea that new animals are the offspring somehow of pre-existing ones.

There are many points which will strike the critical reader in perusing Dr. Bree's work, which we must not linger over. He repeats the old argument drawn from the Egyptian monuments against what is called "the transmutation of species," by showing that the animals depicted are such as flourish at the present day. This argument refutes itself, since, of course, the Egyptians could not have depicted any new animals developed since their time. On the subject of *species*, he clearly sees that some natural theologians would impose on us, and force us to believe that everything we may consider a species was created as such (p. 294). He speaks of the "difference between species as defined by man and those which are defined by Nature." Here, as elsewhere, some of the ultra-orthodox would put fetters on the human intellect, quite unsanctioned by authority. Some persons (as Gosse, in his book called "Omphalos") refuse even to argue with anyone who will not acknowledge "species" to be immutable from their creation to their extinction. But, for our own part, let us take any genus of plant, *P*, with many species, say Pyrus or Plantago. We conceive that a man may be a very good Christian, and yet believe that *Plantago major*, *P. minor*, *P. lanceolata*, *P. maritima*, *P. Alpina*, etc., may all have been developed out of one or more original Plantago. The same with cat, dog, and mouse, whether *per saltum* or gradually, but probably *per saltum*.

One of the strongest arguments of the evolutionists is the fact, not to be shirked, that variations of human structure are repetitions of structures common to animals—as was shown long ago by Tiedemann, by Professor Wood, and by Mr.

Beswick Perrin in our own pages. One of the weakest arguments used by Dr. Bree is that which accounts for animal-like variations of muscles, on the supposition that the skeleton is first of all abnormally formed, "the result of ancestral disease," and that "Nature steps in" and modifies the muscular structure. A pretty confession this for an anti-evolutionist! Lastly, we may refer to the argument from design, which has been ridiculously abused by men who gave fanciful explanations of structures they could not understand, and assumed that every structure must be of use to the individual bearing it. But for all that, it is irrefragable in itself, and the palpable evidences of it in Nature stultify all notions of necessitarianism. So, too, Dr. Bree nobly vindicates the doctrine that the world was created for intelligent men, and that beauty of colour and harmony of sound were designed for the delight of the senses, and the senses for them. Here we must end our notice of a work marked by great thoughtfulness, learning, and good taste.

NEW BOOKS, WITH SHORT CRITIQUES.

Epilepsy and its Cure. By G. Beaman, M.D. London: Renshaw.

*** This is the fourth edition of a practical little work on a disease often intractable, if not incurable. Dr. Beaman appears to have had considerable success in a plan of treatment he describes, and in this edition several new cases are added.

Guide to Trefriw and the Vale of Conway Spa. By Dr. John Hayward. Second edition. London: Renshaw.

*** An account of a very pretty little village in the Vale of Conway, which contains chalybeate waters considered to be of much value in a great number of diseases. This little *brochure* is worthy of a perusal for those in search of health in many forms of chronic disease.

Spiritualism answered by Science, with Proofs of a Psychic Force. By E. W. Cox, S.L., etc. New edition. London: Longmans.

*** Serjeant Cox is a shrewd lawyer and an able judge; and we venture to say the "proofs" he adduces in this really clever book would not be received by him as evidence of the smallest fact at the Middlesex Sessions. We might parody a line of Pope without offence to the learned serjeant,—

"Simple at Highwood, wise at Clerkenwell."

The Influence of Vaccination, Age, Sex, and Occupation on the Mortality in Small-pox. By Dr. Grieve, M.D. London: J. and A. Churchill.

*** This is a very interesting paper on the existing epidemic. Dr. Grieve gives in a detailed form the statistics of a large number of cases, and shows the influence exercised by vaccination, age, sex, and occupation on the rate of mortality in small-pox, the result of his own personal experience.

FOREIGN AND COLONIAL CORRESPONDENCE.

AUSTRALIA.

Melbourne, March 28.

A Legal Paradise: Clurson *v.* Blair; Moore *v.* Motherwell; Crooke *v.* Van Hemert.

The action of Clurson *versus* Blair, tried in the Supreme Court of this city in the beginning of this month, was one of great significance to the whole Profession. It occupied the Court nearly a week, and the verdict was received with general satisfaction. The plaintiff was a woman of no personal attractions, who some years ago was a patient of Mr. John Blair, L.R.C.S. Edin., the defendant, when he practised in a suburb of Melbourne. The history of the relations between Mr. Blair and Mrs. Clurson extended over four years. She appeared to have contracted for him that utterly absurd but furious affection which mature women sometimes entertain for young men. Her regard had been manifested in a hundred different ways; and Mr. Blair, being of a good-natured, easy, jolly disposition, was only amused at the assiduity with which his elderly patient and admirer urged her love. In 1867 Mr. Blair married a lady to whom he had been long engaged, and from that time Mrs. Clurson pursued him with a relentless bitterness and a hatred that nothing seemed to appease. She told her husband that Mr. Blair had assailed her virtue on three different occasions, but that she had come triumphantly out of the trial. Mr. Clurson believed her, and he had good reason, for she might safely have been left with the most unappeasable satyr that ever existed. The two, however, set to work to "devise engines" for the moral life of their victim. Letters of a filthy description were written to Mrs. Blair, to Mr. Blair's mother and sisters, to his private friends, and to all his patients, accusing him of infamous crimes. Mr. and Mrs. Clurson went into public wherever Mr. and Mrs. Blair were to be found—at balls, theatres, etc.—and grossly insulted them; and at last they brought an action, accusing Mr. Blair of three "indecent assaults," committed, as alleged, eight or nine years before, and of sending to them an indecent photograph. Never was there such a discomfiture of a conspiracy. The "indecent assaults" were found to have been nothing more than very ordinary Professional attentions when Mrs. Clurson had had hysterical seizures in Mr. Blair's consulting-room, and the indecent photograph was shown to have been made indecent by someone else than Mr. Blair. Altogether the scandal was a very rank offence against decency; but as all the indecency was shown to be on the side of the plaintiffs, Mr. Blair came out of the ordeal unharmed. But the trial has caused a good deal of consternation in the Profession, because it is felt that any Medical man may suffer a similar persecution to that of which Mr. Blair has been the victim.

Another action in which the Medical Profession was intimately concerned came off on the 19th. Dr. Moore, a suburban Practitioner, sued Dr. Motherwell, the Senior Physician of the Melbourne Hospital and a member of the Council of the University, for damages for an alleged slander committed in the course of a discussion in the Council of the University, when Dr. Moore, who had taken the M.B. degree of the Sydney University, applied for admission *ad eundem* in Melbourne. Dr. Motherwell had expressed some doubts as to the manner in which the degree had been obtained; and this being reported to Dr. Moore by Dr. Cutts, another member of the Council, the action was forthwith instituted. But when the trial came on, Dr. Cutts could not remember the words which had been used, and so the judge nonsuited the plaintiff. It was well understood, however, that the real reason why the action was brought was to air the grievance of the *ad eundem* being refused by the Council. The Sydney University are granting Medical degrees much as the Scottish universities used to grant them thirty years ago—namely, after a nominal examination—and it is felt that it would simply destroy the prestige of the Melbourne University if these easily acquired qualifications could insist upon recognition here.

Two other actions are pending—one by Mr. Crooke, M.R.C.S., against Mr. Van Hemert, M.R.C.S., for a libel contained in a pamphlet entitled "What a Surgeon may suffer in Victoria"; and another by a Dr. Lloyd against the publishers of the *Australian Medical Journal*, for an alleged libel contained in a leading article reflecting upon that person as a member of the Diphtheria Commission. And *apropos* of this Commission, it is now in full operation, and the Profession is being summoned right and left to give evidence before it. A feeling of general indignation is experienced at the humiliation to which this exercise of authority subjects those who are so summoned, for I suppose no official body was ever held in such thorough contempt as is this Commission; but as they have the law on their side, there is nothing for it but to submit.

The election of two additional Assistant-Physicians to the Melbourne Hospital took place on the 13th, the result being the success of Dr. Lilienfeld (a German) and Dr. Lawrence (lately the Senior Resident). Dr. Patrick Smith, who for four years and a half has been the Resident Surgeon of the Benevolent Asylum, resigned that appointment about a fortnight ago, in consequence of having been appointed Resident Medical Officer of the Ararat Lunatic Asylum. Dr. Little has been elected in his place.

The County and City of Worcester Pauper Lunatic Asylum.—The nineteenth annual report of this asylum, just issued, states that the receipts for the past year were £16,782 17s. 9d., and the expenditure £15,316 2s., leaving in hand a balance of £1466 15s. 9d.; that at the beginning of the year there were 644 patients, and during its course the admissions had been 175, making the total number under treatment during the year 819—viz., 372 males, and 477 females; that 79 patients were discharged as recovered, 24 patients were removed relieved, 10 patients were removed unimproved, and 81 patients died during the year, which left, on December 31, 290 males and 335 females under care in the asylum.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, June 4.

At last a decided step has been taken with a view of securing for the subject of sanitary legislation in Ireland the attention it deserves. In the laudable effort to improve the hygienic condition of this country the Medical Profession has taken the lead, a thoroughly representative deputation from the Irish Medical Association, the King and Queen's College of Physicians, and the Royal College of Surgeons, having waited on his Excellency the Lord Lieutenant on Friday, May 31, to urge the necessity of appointing a Royal Commission to inquire into the state of the public health.

Earl Spencer received the deputation in a very cordial manner, and expressed his opinion that the issuing of a commission might possibly cause too long a delay in effecting the necessary reform—a contingency which, especially in the present insanitary condition of the country, was to be avoided if practicable.

Dr. Stokes dwelt on the subject of epidemics in Ireland, and strongly advocated the issuing of a Royal Commission. Dr. Evory Kennedy, as President of the Irish Medical Association, and Dr. Hudson, President of the College of Physicians, supported Dr. Stokes's views. It is, indeed, much to be desired that, with the experience of the existing terrible epidemic of small-pox in some of the cities of Ireland, her Majesty's Government should proceed to deal with the question of sanitary reform in a comprehensive and thorough manner.

On Monday, the 3rd inst., the annual election of officers took place at the Royal College of Surgeons, with the following result:—*President:* Frederick Kirkpatrick. *Vice-President:* John Denham. *Council:* William Hargrave, Robert Adams, Wm. Colles, Hans Irvine, R. Butcher, Rawdon Macnamara, G. H. Porter, B. MacDowel, E. Ledwich, Alexander Carte, James H. Wharton, Geo. W. Hatchett, Albert J. Walsh, W. A. Elliott, John Morgan, Ed. Hamilton, Robert McDonnell, Geo. H. Kidd, and Philip Crampton Smyly. *Secretary:* Wm. Colles.

According to custom, on the same day several Medical Societies held their annual meetings, all of which were well attended by town and country members.

The Irish Medical Association, after having been entertained at breakfast by Dr. Henry Smith, of Borris-in-Ossory, Chairman of Council, afterwards assembled in the library of the Royal College of Surgeons. The chair was taken by Dr. Evory Kennedy, President of the Association. In his address the chairman said that the Profession, hitherto known chiefly for its retiring and unobtrusive habits of thought and action, was taking its place in the *rôle* of turmoil; and, under the guidance of a necessary political movement, preventive Medicine and the question of an improved sanitary code now occupied the attention of the Legislature, and the Medical Profession had come forward to aid in this great crisis by the knowledge and the proverbial humanity of its members. Dr. Kennedy then alluded to the labours of the Irish Poor-law Medical Officers, and to the action taken by the University of Dublin in founding a qualification for State Medicine. At the conclusion of an able address, Dr. E. J. Quinan read the report, which gave an account of the proceedings of the sub-committee in reference to the Local Government Bill; of communications with the Government respecting the effect on the salaries of Militia Surgeons in Ireland; of changes in arrangements for training proposed by the Army Department; of interviews with the Registrar-General touching the inadequate remuneration granted to registrars of births, deaths, and marriages throughout Ireland; and of proposed schemes for making provision for the widows of Medical men. The death of Dr. T. E. Beatty was deplored, and the report concluded with the expression of a hope that the Council might shortly have an opportunity of bringing the whole subject of the sanitary state of the country before a Royal Commission sitting in Dublin. Resolutions were then adopted relating to the urgent necessity for a Sanitary Royal Commission, and to the present very inadequate salaries granted to the Irish Poor-law and Dispensary Medical Officers. On the motion of Mr. Darby, of Bray, a resolution was passed to the effect that powers should be sought to establish a fund from which the widows and children of deceased Medical officers might be entitled to relief.

The second annual meeting of the Irish Poor-law Medical Officers' Association was held on Monday afternoon in the Hall of the King and Queen's College of Physicians. The chair was occupied by Sir Dominic Corrigan, Bart., M.D., M.P. Dr. D. T. Maunsell, hon. sec., read the report. In it allusion was made to an important object of the Association—the obtaining, namely, the payment of the salaries of Medical officers from the State—thus making them members of the Civil Service, and securing a certainty of promotion, increase of salary according to length of service, and compulsory superannuation. Various Bills affecting the interests of the Profession were also mentioned, and the report went on to show how efficiently the existing Poor-law Dispensary system was carried out in Ireland by the Medical officers attached to it. The organisation of a sanitary system was advocated, and suggestions were offered whereby such might be made economical, efficient, and compact. The amount now annually spent on preventive Medicine in Ireland was stated to be the paltry sum of £5240 12s. 11d., while the prevailing epidemic of small-pox had already cost Dublin some £30,000, irrespective of the loss of 1300 lives, including about 500 heads of families.

Dr. Rogers, President of the Poor-law Medical Officers' Association, England, moved the adoption of the report, and the two following important resolutions were carried unanimously:—

Moved by Dr. Grimshaw, seconded by Dr. Maunsell—"That the Council of the Association be requested to take means to impress upon the Government the importance of so constituting the board proposed in the Local Government Bill for Ireland, now before Parliament, that the board may include a member specially qualified in State Medicine and sanitary science, with the view of efficiently carrying out such sanitary measures as have been, or may hereafter be, sanctioned by the Legislature."

Dr. Speedy moved, and Dr. Hanrahan seconded—"That a committee be formed to memorialise the Chief Secretary on the part of the Poor-law Medical Officers of Ireland as to the injustice inflicted on them in receiving no payment for certifying in cases of dangerous lunacy; or, if practicable, to wait on Lord Hartington, and place the matter fully before him."

At 5 p.m. on the same evening, the thirtieth annual meeting of the Royal Medical Benevolent Fund Society for Ireland took place at the College of Physicians. The chair was taken by Dr. Alfred Hudson, President of the Society. After some remarks from the President, one of the hon. secretaries read the report, from which it appeared that the funded capital of the Society was now £14,500; that the number of applications during the year had been eighty-five—nine from Medical men disabled by age or ill-health, sixty from widows, and sixteen from orphans; and that the amount expended in grants for the year had been £839. It was to be regretted that considerable apathy still existed in the neighbourhood of some of the country branches, from which reports of by no means a cheering character had been received. The report concluded with an appeal from the central committee for continued efforts on behalf of the Society. It was stated that a sum of about £1100 was available for distribution.

Dr. Stokes moved the adoption of the report. Among the subsequent resolutions was one by Dr. Duncan, who proposed that a vote of thanks should be passed to the Medical students of Belfast for a generous contribution made by them to the funds.

Bearing in mind the adage that "Union is strength," the Medical officers attached to the Irish militia regiments have formed a society termed the "Irish Militia Surgeons' Association," and a preliminary meeting was held at the College of Surgeons on the 5th inst., Dr. William Stokes, jun., being chairman on the occasion.

It was proposed by Dr. Wilkinson, seconded by Dr. Jacob, and carried—"That the course proposed to be adopted towards Militia Surgeons by the Right Hon. the Secretary of State for War in his army organisation scheme, so seriously affects our interest and position that it is incumbent upon us to take immediate steps to secure a fair consideration of our claims."

The following were appointed officers of the Association:—*President:* Dr. Stokes, Co. Dublin Light Infantry. *Committee:* Drs. Irwin, Monaghan; Lynn, Armagh; Murphy, Limerick Artillery; Maybury, Kerry; Townsend, Cork; Nagle, Roscommon; Nolan, Galway; Wilkinson, Limerick; Peter, Longford Rifles; Jacob, Queen's County Rifles; Huston, Kildare Rifles; Drew, Wicklow Rifles; Malcolmson, Cavan; Wilson, Dublin Artillery. *Secretaries:* William Malcolmson and Henry Wilson. *Treasurer:* Henry Wilson.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 28.

T. B. CURLING, F.R.S., President, in the Chair.

A PAPER by Sir WILLIAM GULL and Dr. HENRY G. SUTTON was read, "On the Pathology of the Morbid State commonly called Bright's Disease with Contracted Kidney (Arterio-Capillary Fibrosis)." The authors of this paper commence by stating that Dr. Bright and subsequent pathologists have fully recognised that the granular contracted kidney is usually associated with morbid changes in other organs of the body; and the disease in the kidney and the other coexistent morbid changes are commonly grouped and collectively termed "chronic Bright's disease." It is generally assumed that, in chronic Bright's disease, the kidneys themselves are the organs primarily affected; and, in consequence, a cachexia is induced through which other organs subsequently suffer and undergo chronic changes. The authors consider that the history of the disease does not support this opinion. The morbid changes in the kidneys themselves are first considered, the coarser anatomy being omitted. The microscopical appearances observed in granular contracted kidney are given in detail, and their conclusions on this point are as follows:—The visible morbid changes in granular contracted kidneys are due to the primary formation of a fibroid or hyalin-fibroid substance in the intertubular parts, including the vessels, and to atrophy of the tubular and intratubular structures of the kidney. On this point the authors confirm the observations of Dr. Dickinson and other observers. And they further state that this formation commences in different parts of the kidney, commonly near the surface; but it also seems to commence in the outer coats of the arterioles, and in the walls of the capillary vessels. From these parts it extends round the convoluted tubes and Malpighian bodies. This fibroid or hyalin-fibroid substance subsequently contracts and draws the Malpighian bodies together, compresses the urinary tubules and vessels, and may entirely obliterate them. This thickening of the capillary walls, and the diminished calibre of some of the arterioles, must naturally interfere with the nutrition of the tissues and tend to produce atrophy; and the blood-supply to the secreting cells, being in this manner reduced, probably causes diminished secretory function and atrophy from diminished use. The alteration in the renal epithelium, when great, is the result of the atrophy; and its slighter changes, such as granular appearance and desquamation of some of its cells, are not peculiar to granular disease of the kidney, such slighter changes being even consequent on the process of dying. The morbid changes in the vascular system are next considered. Dr. Bright and subsequent observers have recognised that atheromatous arterial disease is common with granular contracted kidney. In 1852, Dr. George Johnson, in his work on Kidney Disease, stated that the minute renal arteries are much thickened in chronic Bright's disease owing to hypertrophy of the muscular coats of the vessels. A few years ago the same writer pointed out that the arterioles, not only in the kidney, but in the skin and other parts of the body, are thickened and their muscular coat hypertrophied in chronic Bright's disease. Sir Wm. Gull and Dr. Sutton describe at considerable length the changes that they have found in the minute arteries and capillaries of the kidneys, pia mater, and other parts; and they state that their observations show that the minute arteries and capillaries are thickened in chronic Bright's disease, and they remark, "we gladly acknowledge the debt the science of Medicine owes to Dr. George Johnson for so distinctly insisting upon this fact." The microscopical observations of Sir Wm. Gull and Dr. Sutton show that the arterioles and capillaries are more or less altered in chronic Bright's disease. This alteration is due to a hyalin-fibroid formation in the walls of the minute arteries, and hyalin-granular change in the corresponding capillaries; that this formation occurs chiefly outside the muscular layer, but it also occurs, but to a less extent, in the tunica intima of some of the arterioles. Further, that the degree in which the affected vessels are altered, and the extent to which the morbid change is diffused over the vascular system of the different organs, vary very much in different cases. The muscular layer of the affected vessel is often atrophied in a variable degree. The authors recognise that some pathologists may consider that the perivascular canals are the seat of these hyalin-fibroid changes. On the existence of such canals they express no opinion; they assert only that the morbid changes are chiefly outside the muscular layer of the arterioles. The arterio-capillary changes observed in chronic Bright's disease are not seen in the vessels of healthy persons who have been accidentally killed or who have died of phthisis and of other diseases not allied to chronic Bright's disease. The condition which induces the vascular change is next considered. Dr. George Johnson states that the general arterial thickening is due to muscular hypertrophy. He considers the blood is impure in consequence of the kidney disease, and the arterioles resist the passage of this impure, more or less noxious blood, and in doing this they become hypertrophied. The left ventricle of the heart, therefore, makes an increased effort to drive on the impure blood, and the result of this antagonism of forces is, that the muscular walls of the arteries and those of the left ventricle of the heart become in an equal degree hypertrophied. This theory Sir William Gull and Dr. Sutton do not accept, for their observations show that arterial changes are not dependent on muscular hypertrophy, but on hyalin-fibroid formation. They have found the heart and vessels healthy in cases of chronic disease of the kidneys, and, further, their inquiries show that the cardiac and vascular changes may occur independently of renal disease. Cases given in the appendix to this paper are next alluded to, which show that there is a general morbid state in which the kidneys may be contracted, the heart hypertrophied, and the minute arteries and capillaries altered by a hyalin-fibroid formation. The kidney changes are most often, but by no means always, part and parcel of this morbid state, and their absence shows that the renal changes are not an essential and indispensable part of the general process; but as the vascular system is at some part affected with this hyalin-fibroid change in all the cases, therefore they conclude that the vascular disease is to be regarded as the constant and essential part of this morbid state. The pathology of this hypertrophy of the left ventricle is next considered. Bright considered that the quality of the blood was altered by the kidney disease, and the heart, in consequence, had to contract with greater power to force the morbid blood through the vascular system, and became hypertrophied in order to accomplish this. Many pathologists have adopted Bright's explanation. Dr. Wells, in 1853, suggested that the hypertrophy might be dependent on atheromatous changes in the vessels. Against the explanation offered by Bright and others, the authors state that the frequent association of cardiac hypertrophy and renal disease does not prove that there is a causal relation between these two morbid states. Moreover, that in many cases where there is chronic disease of the kidneys, and the blood therefore presumably impure, the heart is not hypertrophied—instance, large white, lardaceous and scrofulous kidneys, as well as some cases of granular contracted kidneys. Dr. Johnson has endeavoured to account for the absence of the hypertrophy in such cases by assuming that the muscle of the heart is imperfectly nourished. The authors consider this suggestion, and state that this may explain a dilatation disproportionate to the hypertrophy, but it does not explain how a normal-sized heart acquires additional force requisite to overcome the supposed obstruction. Evidence is next brought forward to show that the cardiac hypertrophy is induced by the morbid changes referred to in the vascular system, the heart being found hypertrophied in all the cases in which the vessels were much and generally thickened by hyalin-fibroid change, slightly hypertrophied where the vessels were little thickened, and greatly hypertrophied where the vessels were much thickened, although there might be little or no kidney disease. The hyalin-fibroid change is assumed to impair the elasticity of the vessels, thus imposing upon the left ventricle a necessity to contract with greater force to carry on the circulation. The other conditions which make up the morbid state known as chronic Bright's disease are next noticed—namely, vesicular emphysema, retinitis albuminurica, atrophied brain, contracted spleen, and morbid changes in the intertubular parts of the stomach. In all these conditions it is shown that the arterioles are more or less thickened by fibroid or hyalin-fibroid changes. This general morbid state is shown to belong principally to the period of life at or after forty years of age, and after forty its frequency greatly increases as age advances. It is pointed out that the kidneys, even in children or in other young persons under adult age, are sometimes much contracted and death caused by uræmic poisoning, without the cardio-vascular changes alluded to.

But the general hyalin-fibroid change in the vessels may occur in early life; and, in proof, the case of a girl, aged 9 years, is mentioned, where the kidneys were granular and very contracted, the heart hypertrophied, and there were hyalin-fibroid changes in the arterioles of the pia mater. The authors desire to show that in the state known as chronic Bright's disease with contracted kidney, the morbid changes described do not arise in a constant order. In some cases the changes seem to commence in the kidneys or in the heart, sometimes in the lungs or in the brain, or in other organs; hence the symptom of the disease varies very much in different cases. In all cases, whether many or few organs are affected, the minute arteries and capillaries are altered by hyalin-fibroid formation, attended with atrophy of the adjacent textures. The authors cannot regard the functional disturbances which occur in many organs during chronic Bright's disease with contracted kidney as dependent on blood changes only or chiefly—as, for instance, pain in the head, discomfort after food, palpitation, dry skin, epistaxis, etc. These are probably due not so much to changes in the blood as to changes in the tissues themselves. The conclusions arrived at in the paper may be briefly summed up as follows:—1. There is a diseased state characterised by hyalin-fibroid formation in the arterioles and capillaries. 2. This morbid change is attended with atrophy of the adjacent tissues. 3. It is probable that this morbid change commonly begins in the kidney, but there is evidence of its beginning primarily in other organs. 4. The contraction and atrophy of the kidney are but part and parcel of the general morbid change. 5. The kidneys may be but little, if at all, affected, whilst the morbid change is far advanced in other organs. 6. This morbid change in the arterioles and capillaries is the primary and essential condition of the morbid state called chronic Bright's disease with contracted kidney. 7. The clinical history varies according to the organs primarily and chiefly affected. 8. In the present state of our knowledge we cannot refer the vascular changes to an antecedent change in the blood due to defective renal excretion. 9. The kidneys may undergo extreme degenerative changes without being attended by the cardio-vascular and other lesions characteristic of the condition known as chronic Bright's disease. 10. The morbid state under discussion is allied with the conditions of old age, and its area may be said hypothetically to correspond to the "area vasculosa." 11. The changes, though allied with senile alterations, are probably due to distinct causes not yet ascertained.

Dr. Broadbent commenced the discussion by avowing his intention to confine himself to the question as to the nature of the changes in the minute arteries. Sir William Gull, Dr. G. Johnson, and Dr. Sutton were agreed that in contracted granular disease of the kidney there was hypertrophy of the heart and thickening of the arterioles, and that the cardiac hypertrophy was a true muscular hypertrophy due to changes in the arteries. But these Physicians differed as to the character of the thickening of the arterial walls, and as to its mode of production. Dr. Johnson believes it to be true hypertrophy of the muscular coat, caused by overwork in resisting the passage of impure blood. Sir William Gull and Dr. Sutton record their belief that it is a degenerative change in the tunica adventitia, the causation of which is unexplained. The ultimate appeal was naturally to the microscope, and Dr. Broadbent did not pretend to have traced the history and progress of the changes as closely as the authors. But he was so firmly convinced as to the existence of hypertrophy of the muscular coats of the walls of the minute arteries that, if compelled to relinquish this belief after what he had seen, he should cease to credit the existence of muscular fibre at all in the walls of normal arteries, for the appearances were identical in kind, differing only in degree. He proceeded to canvass the arguments advanced in support of Dr. Johnson's theory. That the cardio-vascular hypertrophy is not usual in other forms of diseased kidney, and has therefore some other cause than renal disease, and consequent deterioration of the blood, to be valid, involves the assumption that the effects in the blood are identical in all affections of the kidney. It is not sufficient that the blood is rendered impure, because one sort of impurity may, and another may not, provoke vascular resistance. But it is obvious that the deterioration of the blood in granulated contracted kidney cannot be the same as in waxy kidney. In one the urine is abundant, pale, of low specific gravity, and contains little albumen; in the other it is scanty, with colouring-matter present in the usual proportions, more albumen, and higher specific gravity. The blood cannot, as a mere matter of subtraction, be in the same state, to say nothing of the less tangible but more important distinction which the differential characteristics of the urine indicate. In large kidney, too, the course of the disease is shorter, and hypertrophy requires time. Scrofulous kidney is attended with suppuration, which latter condition is associated with vascular relaxation. And, after all, the forms of renal disease other than contracted granular kidney are not uncommonly attended with arterial tension and thickening and cardiac hypertrophy, and this is only to be explained by Dr. Johnson's theory. The second objection, that the cardio-vascular changes are not constant in contracted granular kidney, again, is of no great weight, for exceptional cases are very rare, and absolute uniformity cannot be expected in conditions so complicated. The general vascular change indicated in the views of Sir W. Gull and Dr. Sutton is not consistent with Dr. Johnson's theory, as the former imply arterial resistance and consequent hypertrophy intermediate between the renal disease and the hypertrophy of the heart. The vascular changes, indeed, need not be proportionate to the degree of kidney disease, since a long-continued slight amount of kidney mischief may cause greater vascular hypertrophy than a more rapid and complete degeneration of these organs. And with reference to Dr. Johnson's theory, that the change in the arterioles is hypertrophy of their muscular fibre, which latter is induced by long-sustained resistance to the passage of impure blood, manifested clinically by high arterial tension, we ought occasionally to have the vascular change and cardiac hypertrophy independent of, or antecedent to, renal degeneration. In the gouty condition, for example, long recognised as a cause of contracted granular kidney, there is frequently, if not always, increased arterial tension, and therefore vascular resistance, with no indication in the urine of kidney changes. It must be remembered that the arterial tension comes and goes, so that it cannot be attributed to hyalin-fibroid degeneration. If, as the views of the authors indicate, the thickening of the walls of the arterioles is degenerative in character, the latter must be converted into unyielding tubes; and it is indeed in this way that the cardiac hypertrophy is said to be induced, and they cannot, therefore, be influenced by any of the causes which contract or dilate the vessels, and so there can be no variation in the character of the pulse other than as is due to the greater or less frequency and more or less force of the heart's action. What are the facts? Pyrexia is clinically known to relax the arteries and lower vascular tension. It does so in Bright's disease, and the speaker's attention was particularly called to the fact (frequently indeed since) by the character of the pulse and the interesting modifications in the sounds of the heart shown by Dr. Sibson to be due to high arterial tension in a case which the post-mortem examination showed to be one of contracted kidney. He continually made use of the fact in clinical teaching, and, on one occasion, having arrived at the bedside and described the distinguishing peculiarities of the pulse, he found that this had entirely disappeared: the pulse was soft, the vessels relaxed as in ordinary pyrexia, and, in effect, the temperature was high, and the patient passing through an attack of pyrexia, on subsidence of which the arterial tension returned. It is well known that the effect of nitrite of amyl is to relax the arteries and to lower the vascular tension, and Dr. Broadbent experimented with it in a case of Bright's disease. If these vessels were thickened by a degenerated hyalin-fibroid deposit, it is obvious that no result could follow; but the speaker was enabled to exhibit a sphygmographic tracing, taken by Dr. Handfield Jones, showing that, whereas before inhalation the trace presented a convex rise, a round summit, a partial fall, and a vibrating slope to the lowest point (unmistakable indications of high arterial tension), after inhalation the height of the trace was more than doubled, the rise was concave, the apex pointed, the fall precipitate, and there was marked dicrotism, and, in fact, the tension was exchanged for complete dilatation. Dr. Broadbent, therefore, felt it impossible to accept the conclusion arrived at by the authors, and his conviction remained unshaken that Dr. Johnson's theory was one of the most comprehensive and interesting links between Physiology and Medicine.

Dr. George Johnson said that the interest of the subject obviously centred in the question as to what is the nature of the thickening of the walls of the minute arteries in the kidney and in most of the tissues in chronic Bright's disease. He maintained that the thickening was a genuine hypertrophy of the muscular coats of the artery, while the authors denied the existence of hypertrophy, and declared that a hyalin-fibroid degeneration external to the muscular coat constituted the essential change. An appeal to actual specimens must decide the question. He invited attention to those on the table, which had been declared to be examples

of hypertrophy by many men, including Dr. Sharpey, Dr. Carpenter, Sir James Paget, and Dr. Rutherford. He was surprised to find that the authors had not produced their specimens, and he maintained that degeneration of the muscular coat of an artery must impair its contractile power, and therefore lessen its stopcock action. Hence the high arterial tension and the cardiac hypertrophy could not be explained on the theory of arterial degeneration. With reference to this point, Dr. Broadbent's experiment with nitrite of amyl was of great interest. He had specimens of arteries whose walls had undergone the so-called waxy degeneration, showing the canals irregularly dilated in consequence of their diminished power of resisting the blood-pressure. In opposition to Sir W. Gull and Dr. Sutton, he stated that the renal degeneration commences in the glandular structures, and not in the arteries; and that, with the exception of the Malpighian capillaries, the walls of the capillaries in all the tissues were entirely unaffected, and the walls of the veins also were free from structural change. Hence the statement that the area of the morbid change is that of the area vasculosa is inaccurate. The same hypertrophy of the arterial walls occurs in the large white as in the contracted kidney, and he failed to see how the authors explain this in their theory that atrophy of tissues results from the primary vascular changes. The authors gave no explanation of the assumed primary degeneration of the arteries, whereas the speaker's explanation of the various forms of renal disease, with the resulting cardiac and arterial hypertrophy, was physiologically complete and intelligible. In the absence of specimens, it was difficult to give any positive opinion as to the nature of the so-called hyalin-fibroid degeneration described by the authors; but judging from the description of the change as occurring in a hyalin form external to the muscular coat of the artery, and from the appearance of the drawings, he ventured to suggest that they described as pathological that swollen and translucent appearance of the tunica adventitia so commonly produced by the imbibition of fluid, especially when that fluid is mixed with glycerine or dilute acetic acid. This appearance is readily produced in the normal arteries of the pia mater, and may be seen in the arteries of the skin and mucous membranes. If these were not the appearances described and figured in the hyalin-fibroid degeneration, the speaker could not say to what the description applied until he had examined the authors' specimens.

Dr. Silver felt diffidence in criticising the paper of two such distinguished Physicians, but assuredly there were other modes of origin for contracted kidney than that described, connected with the tubular epithelium and the intertubular connective tissue. But granted the atrophy, the symptoms produced were excess of urine of low specific gravity, and containing little albumen, and he thought that this theory, especially as it applied to the heart, did not help to explain the matter. As to the urine, it was peculiar, being neither blood-serum nor urine; and while it contained little of the elements of urine, it also contained little albumen. The filtering apparatus remained tolerably sound, otherwise more albumen would be present; but the amount of fluid filtered through served to show that the process went on under great blood-pressure, although enough urea was not got rid of. So the patient had little risk of dropsy, but great risk of uræmic convulsions, or of inflammation of the serous membranes. These probabilities showed that urea was formed, and it was known that crystals of urea had been seen on the skin of patients in an advanced stage of the disease. Life, however, could not be maintained unless some urea was carried off. It was necessary, therefore, to increase the pressure, and the hypertrophied left ventricle showed that this was done; and as the speaker did not believe that the hypertrophy was immediately due to the contracted kidney, so also he could not believe that it was due to the presence of any irritant in the blood. This was not the hypertrophy of a damaged organ, but hypertrophy due to blood driven under higher pressure. To increase the flow of urine resistance in the arteries was necessary, and he suggested that that might explain the muscular thickening of the vessels. He had accordingly given ergot in a case of chronic Bright's disease. This would act on the muscular coats of the vessels, cause them to contract, and so increase the pressure of blood in the kidney. The result was that the patient's urine steadily increased from twelve to upwards of 100 ounces; but in other cases the increase was less marked. He doubted whether, on the whole, this new theory helped much to elucidate the phenomena of the disease.

Mr. Brudenell Carter said the authors of the paper had referred to albuminuric retinitis, and that the history of this condition was calculated to support their general conclusions. The changes in the retina were once supposed to be pathognomonic of albuminuria, but it was now known that they might be present without that symptom. Again, there was no constant relation between the retinal and the renal affections. In many cases of Bright's disease the retina escaped for a long period; in some it escaped altogether. In many others, on the contrary, the troubled retina was the cause of the patient's seeking advice; and the ophthalmoscopic examination first led to the discovery of albumen in the urine. The retinal changes, again, differed greatly in different instances—the white patches sometimes preceding, sometimes following, the characteristic hæmorrhages. On the whole, the weight of evidence was opposed to the supposition that the retinal was an effect of the renal disorder, and was in favour of the supposition that both were the effects of some more general cause; and that each, for a certain time at least, might exist independently of the other.

Dr. Anstie wished to ask Dr. Broadbent whether he was aware of the extent to which the muscular tissue of the arterioles remained sufficiently intact to be sensible of the action of nitrite of amyl, even in very advanced states of degeneration. He (Dr. Anstie) had had occasion to try the effects of amyl in many patients in whom the arterioles must have been extremely degenerated by the effects of old age; nevertheless, the usual sudden dilatation was well marked—indeed, alarmingly so.

Mr. Hulke said the changes in the eye were of two kinds, and not one only, in Bright's disease.

Dr. Rutherford, in remarking that the essence of the discussion was the nature of the thickening of the walls of the arterioles, averred his conviction that an examination of the microscopic specimens exhibited by Dr. Johnson was sufficient to satisfy any impartial observer that there is a positive increase in the number of muscular fibres in the walls of the vessel. He regretted the absence of microscopic specimens in connexion with the authors' paper; but observed that it was competent for them to point out in Dr. Johnson's preparations the appearances indicative of hyalin-fibroid as well as the results of the so-called capillary fibrosis.

Dr. Symes Thompson briefly subscribed his belief in Dr. Johnson's views.

Sir William Gull, in replying, remarked that the subject was important as to its bearing upon mortality at a certain period of life. The state called chronic Bright's disease with contracted kidney was a mode of death comprising a large percentage of cases, especially in males, after the middle period of life. When visiting Bath a few years ago the attention of the speaker was directed to the tablets on the walls of the Abbey Church, recording the deaths of persons who had come from many parts of the kingdom for the benefit of the waters. Deaths recorded on the tablets near him ranged from fifty-seven to sixty-three, and from later knowledge he did not doubt that nearly all these patients had gone to Bath for what is commonly termed latent or suppressed gout, or, in other words, for symptoms depending upon the state of cardio-vascular degeneration then under discussion. Hence the Bath waters had been humorously characterised as well calculated to lay the dust. But the object of the paper was important in a therapeutic sense. The somewhat antithetical views set forth in the paper deserved, and must receive, the fullest discussion, whether the affection began, according to former pathologists, locally in the kidney, and so, by extension of morbid influence through the blood, producing a change in the heart and arteries, or whether the disease had, as it was now attempted to show, a more general beginning in the arterioles, the kidneys becoming contracted as a part of the general morbid change. Dr. Broadbent's argument that the cardiac and vascular changes might be limited to one form of renal disease, and not producible by other forms of kidney degeneration, was at present an hypothesis only, and not supported by the fact that extreme contraction and degeneration of the kidneys in young persons did not produce the cardiac and vascular changes which on such supposition should occur with it. Dr. Bastian and Dr. Dickinson gave clinical evidence supporting the views advocated in the paper; the former pointedly stated that dyspnœa was one of the early symptoms, and the latter said that in the early stage of the disease the urine is free both from albumen and casts. The clinical history of chronic Bright's disease, though not included in this paper, seemed distinctly to show that the renal affection may be developed at different stages of the disease. Sir William Gull concluded by saying that it

had long been a dream of the authors of this paper that the lines of pathological change in later life, so far as they were essential in contradistinction to merely accidental influences, would be found to correspond with the lines of early development. Chronic Bright's disease with contracted kidney appeared to the writers of the paper to belong to the area vasculosa. Had there been time, it might have been possible to point out how the mucous layer and skin had its senile pathology corresponding to the mucous layer of the embryo, and so probably had the nervous layer. He also wished emphatically to record that his colleague, Dr. Sutton, must properly claim whatever credit was due with reference to the morbid anatomy of the subject.

Dr. Sutton, in reply, said that he should be glad to show the specimens, and would have done so before the meeting had he been apprised of Dr. Johnson's demonstrations. He did not agree with Dr. Johnson's opinion that the changes observed in the vessels were dependent on some incidental and not upon a diseased condition, for a great number of specimens prepared in the same manner had been examined, and the vessels taken from persons accidentally killed, or who had died from tuberculosis, fever, or other acute diseases, did not present this hyalin-fibroid appearance, which showed the condition to be a morbid one. Where the vessels had undergone the hyalin-fibroid change, the kidneys were found diseased, or there were cardiac hypertrophy and the other morbid conditions commonly found in chronic Bright's disease. He thought that the thickening of the arterioles was not dependent on muscular hypertrophy, and was supported in this view by other observers. Bader and Pagenstecher had studied the changes which the retinal arterioles undergo in chronic Bright's disease, and had concluded that the alteration was due to fibroid formation in them.

At the conclusion of the meeting, Mr. John Wood exhibited a patient upon whom he had performed the operation of Remote Transplantation of a large patch of Skin from the abdomen to the forearm and wrist, to remedy the contraction caused by a severe burn, which had drawn the fingers backwards nearly up to the elbow.

OBITUARY.

CHARLES LEVER, M.D. Dublin.

There are few who will not learn with deep regret that Charles Lever is no more. The most gifted, perhaps—certainly the most popular—of Irish novelists of the present century, his death will be felt by a large portion of the public as the loss of a personal friend. "Men of the Time" gives the following particulars regarding the deceased novelist:—

"Charles James Lever, the son of an architect, was born in Dublin in 1809. At an early age he had been destined for the Medical Profession, and with a view to qualify himself for practice in that line, he was entered at Trinity College, Dublin, where he attended lectures, and eventually took the degree of Bachelor of Medicine, in 1831. He passed through a subsequent course of study at Göttingen, where he also took a degree. When cholera broke out in Ireland, in 1832, Mr. Lever was appointed Medical Superintendent of an extensive and populous district, which included the city of Londonderry and the towns of Newtownlimavady and Coleraine. In this position he rendered good service, and when the disease had abated, became attached to the British Legation at Brussels, in the capacity of Physician. Whilst occupying this post, he produced, first as a serial, his 'Harry Lorrequer,' a novel of Irish life and character, the success of which led to his writing other novels, mostly published in a serial form. 'Charles O'Malley,' 'Jack Hinton,' 'Our Mess,' 'The O'Donoghue,' 'St. Patrick's Eve,' 'Roland Cashel,' 'The Knight of Gwynne,' 'The Daltons,' 'The Dodd Family Abroad,' 'Arthur O'Leary,' and many others of a like kind, touching chiefly on the various phases of Irish military life, and which were illustrated by the pencil of Mr. Hablot K. Browne. Whilst engaged upon these productions he undertook the editorship of the *Dublin University Magazine*, between the years 1842 and 1845, largely contributing to its pages, after which he retired to the Continent, establishing himself first in a castle in the Tyrol, and afterwards at Florence. Amongst the best of his works published anonymously is his 'Diary of Horace Templeton,' and his 'Con Cregan, the Irish Gil Blas.' Mr. Lever was appointed by Lord Derby's Government to a consular post in the Mediterranean. His more recent productions are 'One of Them,' 'Barrington,' 'Luttrell of Arran,' and 'A Day's Ride, a Life's Romance.' Since the above sketch was published several new novels have appeared from Lever's pen—the last, 'Lord Kilgobbin,' having been published in its complete form only a few weeks ago. This work he dedicated in the following terms:—'To the memory of one whose companionship made the happiness of a long life, and whose loss has left me helpless, I dedicate these volumes, written in breaking health and broken spirits. The task that was once my joy and pride I have lived to find associated with my sorrow; it is not then without a cause I say, I hope this effort may be my last.' This 'presentiment' has, unhappily, been realised, and the literary world has seen the 'last effort' of one with whose name it seems difficult to associate a single melancholy idea. The University of Dublin lately conferred on Lever the honorary degree of LL.D. His literary labours, we should add, were not confined to works of fiction, and during recent years he contributed to *Blackwood's Magazine* a series of brilliant 'Sketches, by Cornelius O'Dowd,' on social and political subjects."—*Dublin Daily Express.*

MEDICAL NEWS.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, May 30:—

Hewett, Frederick Charles, Twickenham.
Holder, William, Hull.
Preston, Augustus Richard, South Brent, Devon.
Price, Charles William, Merthyr Tydfil.
Swan, Richard Jocelyn, Northleach, Gloucester.

As Assistants in Compounding and Dispensing Medicines:—

Evans, Gwelym, Llandovery.
Watson, William, Rochester.

The following gentleman also on the same day passed his Primary Professional Examination:—

Cookson, Hugh Alexander, Guy's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Gray, Robert, L.R.C.P. Edin., L.R.C.S.I., L.S.A. Lond., L.A.H. Dub., L.M.—Medical Officer for the Dispensary District of Armagh Union, Ireland.

Mahomed, F. A., M.R.C.S., L.S.A.—Assistant Medical Officer to the Central London Sick Asylum at Highgate.

Prendergast, John, L.K. & Q.C.P.I., L.R.C.S.I., L.M.—Medical Officer for the Crossabeg Dispensary District, Wexford, Ireland.

Seaton, James, L.R.C.S. Edin., L.S.A.—Surgeon to the General Infirmary, Leeds.

BIRTHS.

Applin.—On May 13, at Star Elms Villa, Hoo, Kent, the wife of George Peek Applin, L.R.C.P.E., M.R.C.S.E., of a son.

Crew.—On May 28, at Higham Ferrers, Northamptonshire, the wife of John Crew, L.R.C.P. Lond., of a daughter.

Cunningham.—On May 29, at Trelington House, Southsea, the wife of Surgeon-Major Cunningham, M.D., 20th Hussars, of a daughter.

Edgelow.—One June 2, at 3, Tavistock-square, the wife of G. Edgelow, M.D., of a son, prematurely.

Gaitskell.—On June 3, at King's Sutton, Northamptonshire, the wife of Edward Forbes Gaitskell, L.R.C.P., of a daughter.

Hilliard.—On June 2, at 5, Belgrave-terrace, Upper Holloway, the wife of R. Harvey Hilliard, M.D., of a daughter.

Pocock.—On May 29, at 374, Brixton-road, the wife of Edward William Pocock, M.R.C.S.E., of a son.

Rimell.—On May 31, at 18, Eardley-crescent, West Brompton, the wife of Thomas W. Rimell, L.R.C.P., M.R.C.S., of a daughter.

Robertson.—On March 17, at East St. Kilda, Melbourne, the wife of Robert Robertson, M.R.C.S. Eng., of a son.

Wells.—On May 30, at 20, Fitzroy-street, Fitzroy-square, W., the wife of John R. Wells, L.R.C.P., F.R.C.S., of a daughter.

MARRIAGES.

Atkinson—Atkinson.—On May 25, at Ardnaree Church, Ballina, co. Mayo, Edward Eastwood, eldest son of E. Atkinson, Esq., J.P., Ballina, to Harriette Marian, third daughter of Thomas Atkinson, Esq., late Inspector-General of Hospitals.

Cross—Garwood.—On May 22, at Acomb, near York, Richard N. Cross, second son of Richard Cross, M.D., Scarborough, to Rose C. Garwood, eldest daughter of the late Wm. Garwood, Esq., solicitor, York.

Hollis—Lever.—On June 4, at St. James's Church, Norland, Notting-hill, William Ainslie Hollis, M.D., of New Cavendish-street, Cavendish-square, to Fanny, only child of Charles Lever, Esq., of Notting-hill.

KING—ATKINSON.—On May 25, at Ardnarce Church, Ballina, co. Mayo, Allan Armstrong King, Ceylon Civil Service, youngest son of William King, D.Sc., Glenair, Galway, to Henrietta Louisa, youngest daughter of Thomas Atkinson, Esq., late Inspector-General of Hospitals.

KLENCKE—BENNETT.—On June 4, at the parish church of St. Marylebone, Franz Klencke, Esq., of 23, Elsham-road, Kensington, eldest son of Professor Hermann Klencke, M.D., of Hanover, to Angelina, youngest daughter of the late William Bennett, Esq., of Aberdeen-park, Highbury.

LEET—D'ARCY.—On May 28, by special licence, at Churchtown House, Newcastle West, county Limerick, by the Rev. A. Wellesley Leet, A.M., brother of the bridegroom, assisted by the Rev. W. Eyre Massy, A.M., Rector of Rathronan, Edward W. Leet, R.N., Assistant-Surgeon to H.M.'s *Sultan*, youngest son of Charles Henry Leet, M.D., of Eversden, county Dublin, to Bessie Adams, only child of the late Conyers D'Arcy, Esq., of Ringwood, county Limerick.

MILLER—MORSE.—On June 1, at St. Philip's, Kennington-road, William, second son of Charles Miller, Esq., of Kennington-park, to Fanny, second daughter of Edward Morse, M.R.C.S., L.S.A., of Upper Kennington-lane.

MITCHELL—HYDE.—On June 4, at St. George's, Hanover-square, Sydney John Mitchell, of Solihull, Warwickshire, solicitor, to Emmeline, eldest daughter of the late Clarendon Hyde, Surgeon, and granddaughter of the late Abraham Hoskins, Esq., of Newtown-park, Derbyshire.

RANNICE—TOMSON.—On June 4, at Christ Church, Lancaster-gate, Albert De Clany Rennick, Esq., Bengal Staff Corps, Assistant Commissioner of Punjaub, third son of R. H. Rennick, Esq., Inspector-General of Hospitals, late Madras Army, to Minnie, youngest daughter of the late Colonel George Tomson, Commissary-General, Bengal Army.

SHEARMAN—TURNER.—On June 4, at Aimthorpe, near Doncaster, Edward James Shearman, M.D., F.R.S., etc., Consulting Physician to the Rotherham Hospital, to Anne, only daughter of the late John Turner, Esq., both of Rotherham.

SKEFFINGTON—BIRD.—On May 30, at St. George's, Bloomsbury, Charles Neville, Skeffington, of Oporto, third son of W. Skeffington, Esq., of Kensington-square, to Ada Alice, second daughter of the late Golding Bird, M.D., F.R.S.

SMITH—FROGGATT.—On May 30, at St. John's, Croydon, Walter H. Smith, L.R.C.P., M.R.C.S., to Margaret J., daughter of the late T. Froggatt, Esq.

STOKES—CURRIE.—On May 4, at St. George's Cathedral, Madras, Henry Edward Stokes, Esq., Madras Civil Service, to Helena Amy, second daughter of Dr. Currie, C.B., Inspector-General of Hospitals.

SWEETAPPLE—PARSON.—On June 1, at Godalming, Thomas Sweetapple, of Eashing, youngest son of the late Thomas Sweetapple, Esq., of Cattershall, to Mary, second surviving daughter of the late Charles Alexander Parson, Surgeon, of Godalming.

WINSLOW—GRANT.—On June 1, at the parish church, Fulham, Henry Forbes Winslow, M.D., Sussex House, Hammersmith, youngest son of the late Thomas Forbes Winslow, Esq., of 21, Montague-place, Russell-square, to Mary, younger daughter of the late Captain Edward John Grant, of H.M.'s 17th Regiment of Foot.

WINSTANLEY—HOWITT.—On May 29, at the parish church, Preston, William Alfred, eldest son of William Winstanley, J.P., of Chaigley Manor and West Cliff, Preston, to Maria Elizabeth, only daughter of William Howitt, F.R.C.S.E., and J.P. for the County of Lancaster.

DEATHS.

ADDISON, ELIZABETH CATHERINE, widow of the late Dr. Thomas Addison, of Guy's Hospital, and Berkeley-square, W., at Brighton, on May 30, aged 72.

CANTON, JANE, the dearly loved wife of Alfred Canton, M.R.C.S. Eng., L.D.S., of 17, Great Marlborough-street, Regent-street, suddenly, on June 4, aged 55.

GILL, WILLIAM LETH, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., at his residence, 29, White Lion-street, Pentonville, on May 31, in his 72nd year.

HOLLINGSWORTH, JOHN, M.R.C.S., L.S.A., at Maidenstone House, Greenwich, S.E., on May 23, aged 52.

HUTCHINSON, JOSEPH, F.R.C.S., at his residence, Cheetham Hill, Manchester, on May 28, in his 64th year.

STRANGE, ROBERT, M.D., late of Naples, at 6, Elvaston-place, Queen's-gate, on June 4, in his 76th year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—House-Physician and House-Surgeon. Candidates must be duly qualified. Applications with testimonials to the Secretary, 60, St. Andrew's-street, Cambridge, before June 19.

AMERSHAM UNION.—Medical Officer for the Workhouse, and Medical Officer for the Amersham District. Candidates must possess the qualifications required by the Consolidated Orders of the Local Government Board. Applications and testimonials to be sent to Mr. Henry Bedford, Clerk to the Guardians, on or before June 11.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—Resident Medical Officer and Secretary. Candidates must be duly qualified. Applications with testimonials to Arthur Chamberlain, Esq., Hon. Secretary, 8, The Crescent, Birmingham, on or before July 15.

DERBYSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Also, a properly qualified Dispenser. Applications, with testimonials, to the Secretary, Samuel Whitaker, Infirmary, Derby, on or before June 15.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, RATCLIFFE-CROSS.—Visiting Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, or F.R.C.P. Edinburgh or Dublin, or Graduates in Medicine of a British University, or of the Universities of Paris, Vienna, Berlin, or other universities approved by the General Medical Council, and be legally qualified to practise Medicine in England. Applications to be sent to the Secretary, at the Hospital, before June 17.

ESSEX LUNATIC ASYLUM, BRENTWOOD.—Second Assistant Medical Officer and Dispenser. Candidates must be Licentiates of the Apothecaries' Company and possess a Surgical qualification. Applications, stating former occupation, to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood.

GLOUCESTER DISPENSARY.—Dispenser, registered under the Pharmacy Act, and otherwise duly qualified. Apply to George Whitcombe, Esq., Gloucester, from whom further particulars may be obtained.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

LEEDS UNION.—Medical Officer for the Workhouse and Industrial School. Candidates must possess the qualifications laid down by the Local Government Board. Applications with testimonials to be sent on or before June 12.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon. Candidates must possess a Medical and a Surgical qualification from one or more British Colleges or Institutions recognised under the Medical Act. Applications and testimonials to the Chairman of the Committee not later than June 15.

LONDON FEVER HOSPITAL, LIVERPOOL-ROAD, ISLINGTON.—Resident Medical Officer. Applications with testimonials to be sent to the Secretary, on or before June 11.

MIDDLESEX HOSPITAL.—Lectureship on Psychological Medicine. Applications must be sent to the Dean of the Hospital not later than June 18.

NEWPORT ODDFELLOWS' MEDICAL AID ASSOCIATION.—Assistant-Surgeon. Candidates must be doubly qualified and registered. Applications, with testimonials, to James Davis, Secretary, 21, Ruperra-street, Newport, Mon., on or before June 8.

NORTH RIDING INFIRMARY, MIDDLESBOROUGH-ON-TEES.—House-Surgeon. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons of the United Kingdom. Applications and testimonials to be sent to the Secretary, on or before June 12.

SALOP FRIENDLY SOCIETIES' AND GENERAL MEDICAL AID ASSOCIATION.—A duly qualified Practitioner. Candidates must be Members of one of the Royal Colleges of Surgeons, and Licentiates of the Apothecaries' Hall, London. Applications, with testimonials, to W. H. Williams, District Office, St. Mary's-street, Shrewsbury, on or before June 11.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Elham Union.—Dr. Wildash has resigned the Hythe District; area 6698; population 4305; salary £50 per annum.

Portsea Island Union.—Dr. Simpson has resigned the Workhouse; salary £150 per annum.

APPOINTMENTS.

Dorchester Union.—Wm. T. Botcham, L.R.C.P., M.R.C.S., L.S.A., to the Longbredy District.

Malmesbury Union.—John Betts, M.R.C.S. Eng., L.S.A., to the Fourth District.

Reeth Union.—Henry Towle, M.R.C.S. Eng., L.S.A., to the Muker District.

Walsingham Union.—Francis Coomber, M.R.C.S. Eng., L.R.C.P. Lond., to the Raynham District.

THE ROYAL COLLEGE OF PHYSICIANS have issued cards for their annual *conversazione* on Saturday, June 29, at 9 p.m.

DR. SUTHERLAND has been appointed Lecturer on Insanity to the Westminster Hospital School of Medicine.

THE HARVEIAN ORATION will be delivered by Dr. Arthur Farre, F.R.S., at the Royal College of Physicians, on Wednesday, June 26, at 5 p.m.

AN examination of candidates for fifteen appointments as Assistant-Surgeons in her Majesty's Indian Medical Service will be held in London in August next.

Dr. MURRAY, of Forres, has just been presented with a handsome brougham and a purse of sovereigns by his friends in that town.

IT is proposed to form a sanitary association for Barrow, to supplement the action of the local authorities, and to carry out the powers entrusted to them, as well as to assist and encourage the labours of individual workers.

THE Eleventh Annual Report of the Bourton-on-the-Water and Cotswold Village Hospital states that the in-patients during the past year had been forty-four—a number never before but once reached. The material prosperity of the Hospital increases, and the liberality of the public places the institution every successive year upon a firmer basis.

UNIVERSITY OF CAMBRIDGE.—Professor Humphry gives notice that the course of Practical Histology will commence on Wednesday, July 3, at twelve o'clock, and be continued on Mondays, Wednesdays, and Fridays during July and August. Fee for the course, one guinea. There will be classes for Practical Osteology in July and August. The course of lectures on Practical Anatomy, next term, will commence on Monday, October 7, at 9 a.m., and be continued daily, with a fortnight's intermission at Christmas, till the end of March. Students desirous of obtaining a certificate for the Royal College of Surgeons will be required to attend during the whole of that period.

Académie de Médicine.—At the meeting of May 28 M. Bernutz was elected into the section of Internal Pathology by the suffrages of thirty-nine of the sixty-nine voters present.

St. Mary's Hospital Medical School.—Thomas Hughes, Esq., M.P., has kindly consented to preside at the annual presentation of prizes to the successful students at the school, and to deliver an address on Thursday next, June 13, at four o'clock p.m.

Wingfield Convalescent Home.—This institution has been opened by Archdeacon Clerke. It is near the Warneford Asylum, and about a mile from Oxford. It will accommodate eight persons, and cost 1075*l*.

The Village Hospital, Hambrook, Bristol.—This Hospital was established in 1867. From the annual report just issued, we find that during the past year fifty-three cases were under Medical treatment, and that no death took place. The position and prospects of the Hospital continue in a healthy and flourishing condition.

Black Smoke.—On the ground that it had not been satisfactorily proved that black smoke was injurious to health, the Bolton magistrates dismissed a number of summonses for smoke nuisances. They had not called Dr. Ballard before them.

The Stewart Lunatic Asylum, Dublin.—The half-yearly report just issued states that during the past six months five patients had been admitted, and three discharged, leaving eighty-two inmates, and that the establishment has been working in a very satisfactory manner.

Professor Holmes.—The following is the programme of Professor Holmes's concluding three "Lectures on the Surgical Treatment of Aneurism in its various forms," to be delivered at the Royal College of Surgeons next Monday, Wednesday, and Friday, at 4 p.m.—Lecture IV. (June 10), *Thoracic and Subclavian Aneurisms.*—Galvano-puncture in thoracic aneurism. Ciniselli's table. Evidence, from this experience, that benefit has been produced in some cases. No evidence of complete cure in any, though this is possible. Is the benefit produced by galvanism in intrathoracic aneurism worth the risk incurred? Nature of the dangers in electro-puncture. These dangers are not very great at present, and may be in all probability much diminished in future. The method may also be used in order to avert the danger of the imminent rupture of the tumour, and so to postpone death, if not to cure the disease. *Subclavian Aneurism.*—Ill-success of Surgical treatment hitherto. Researches of Koch and Poland. Subclavian aneurisms usually tubular, and generally symptomatic of extensive arterial degeneration. Universal failure of the Hunterian operation internal to the scalenus, except in one case. Can this be obviated in future by improved methods of deligation? Acupressure, or temporary deligation, hitherto unsuccessful. In some cases, where the first part of the artery has been tied, its second part could perhaps have been secured. Can pressure be exercised upon the first part of the artery under chloroform? In some cases, where the third part of the artery has been tied, and usually with fatal results, compression might have been used. Instances of compression in subclavian or subclavio-axillary aneurism. The other justifiable modes of treatment are manipulation and galvano-puncture. These have been successful occasionally, and we may hope for better results when the methods become more clearly understood. Lectures V. and VI. (June 12, 14), *Abdominal Aneurism.*—These aneurisms divided into three classes for the purpose of Surgical treatment. In none of these, however, ought Surgical measures to be adopted until a fair trial has been given to internal treatment. Occasional spontaneous cure, or very slow progress of such aneurisms. 1. Aneurisms seated as high as the pancreas. Question of trying distal pressure in such aneurisms. Bryant's case. Case of distal ligature in abdominal aneurism. Mesenteric aneurism, its various forms. Some of these are probably curable by pressure. 2. Aneurisms of the lower part of the aorta. Murray's case. Durham's case. 3. Aneurisms of the iliac arteries. Mr. Syme's proposal to treat such aneurisms by the old operation of laying the sac open. Proofs that Mr. Syme over-estimated the facility and safety of this operation. Defence of the old doctrine, from which the superiority of the Hunterian operation is inferred. The operation recommended by Mr. Syme may, however, be justifiably tried in iliac aneurism on account of the great fatality of ligature of the common iliac artery. Hargrave's case. Compression of the abdominal aorta, or common iliac artery, in iliac aneurism. Its successes and dangers. Rapid and gradual coagulation in the cure of aneurism. Question of combining distal with proximal pressure.

Cambridge Philosophical Society.—At the meeting on Monday, the 27th ult., the following communication was made to the Society by Dr. Latham: "On some of the Symptoms produced by Uræmic Poisoning in Chronic Diseases of the Kidney." The object of this paper was to show that many of the symptoms, as to the mode of production of which in chronic Bright's disease much discussion has hitherto arisen, might reasonably be explained. That the factors involved were—(1) The impeded passage of the blood through the minute arteries of the system, caused by excessive contraction and hypertrophy of the muscular walls of these vessels, as has been demonstrated by Dr. George Johnson. (2) The hypertrophy of the heart developed by the resistance offered to the circulation from the contraction of these small arteries; and (3) The impoverished state of the blood, which is the necessary accompaniment of the disease. The author first dwelt upon the occurrence of paroxysmal dyspnœa or asthma, and after discussing the effects which would be produced if the minute branches of the pulmonary artery were suddenly contracted, and the general symptoms and physical signs which would accompany such an event, he showed by reference to cases recorded by other observers, and from instances which had come under his own observation, that the theory was supported by fact. He next referred to epileptiform convulsions and uræmic coma, and pointed out why in some cases convulsions might occur, and not in others, owing to the predominance of one or other of the above-mentioned factors. He then went on to say that although cerebral apoplexy not unfrequently occurred in chronic Bright's disease where there was atheromatous degeneration of the arteries, yet that, independently of this, the apoplexy might be caused by the velocity of the blood through the minute tubes being retarded (the velocity through a tube varying as the square of the radius of the section), and so leading to the formation of a small coagulum of fibrin or a thrombosis. There would then be complete obstruction, and consequently the greatest possible pressure would be brought to bear on the arterial wall, and result very probably in rupture. This, also, he contended, explained the production of pulmonary apoplexy, and minute apoplexies in the kidneys and spleen, or hæmorrhagic infarctions occurring in chronic Bright's disease, where no valvular mischief of the heart or endocardiac disease existed. Dr. Bradbury thought the symptoms mentioned by Dr. Latham were explicable on the supposition that, after Bright's disease had set in, thrombosis of the heart had taken place. He described a case of pulmonary apoplexy which he had recently examined, where a large blocking had been caused in the pulmonary artery, and commented upon one or two points in the paper. Dr. Latham thought the conditions found post-mortem in the case quoted by Dr. Bradbury supported the theory he had advanced; for, as there was no valvular disease of the heart, the obstruction had most probably been caused by some of the minute branches of the pulmonary artery contracting, so as to retard the velocity of the blood through them to such an extent as to allow it to coagulate.

The Eton Wick Sewage Farm.—A writer in the *John Bull* of June 1 describes a visit paid to this farm, of which he says—"It consists of about fifty acres; is situated in the valley of the Thames, with a very slight fall to the river. The soil consists of sandy loam, and has been levelled, earth being taken from one part to fill up the hollows of the other. The land cost about £100 an acre, and was very unremunerative to those who previously farmed it. It is now held by the Board of Health of Eton, and receives the sewage of about 4000 people. The premises are separated from the neighbouring land by a narrow embankment, probably six feet high, under which pass the pipes carrying the sewage. At the distance of a mile and three-quarters (at Eton itself) is seen a tall chimney; this is the pumping station, and from this point, by means of two six-horse-power engines, the sewage of the town is sent through iron pipes on to the spot we stood on. It then passes through glazed earthenware pipes into cemented cisterns, about six feet diameter, sunk in the embankment at regular intervals; these last are covered over with wooden lids. On opening one a turbid dark fluid is seen passing in on one side, and going out of the earthenware pipe on the other; the smell arising from this is somewhat sickening. The manager carries a large key with him, and turns on and off the fluid. As he turns it on, the sewage rushes out at right angles with the embankment down a conduit composed of half earthenware pipes, six inches in diameter, which by means of joints fit one into another. The conduits are about thirty feet apart, and the sewage, as it passes out, soon overflows right and left, covering a surface of say fifteen feet on each side of the conduit; thus the whole

field becomes irrigated in a very complete way. As soon as the earth has received a sufficient dressing of the liquid, the fluid is turned off by the turncock's key, and passes on to another piece of land. As the sewage overflows on the surface of the soil a disagreeable smell is emitted, but the most fastidious must admit that it is not much worse than the scullery-sink smell which we occasionally notice in houses when cabbage-water has been thrown down the sinks. If we subsequently look at a part of the farm that has been irrigated some days, we see the surface covered with a thinnish pellicle of dark blue or greyish crust; this as it dries cracks, and we notice the crop appearing through a friable mould; there is no longer any smell, but I can imagine that in muggy weather there must be a very nauseous effluvium, lasting for some considerable time, after a piece of land has been irrigated. The reader will ask what becomes of all this turbid water? In the valley of the Thames, particularly in the portion in which this farm is situated, gravel is found immediately beneath the surface, and into this bed, or shingle, water finds its way, and ultimately falls into the Thames, but before doing so the fluid has become purified by passing through the best possible filter that nature furnishes. We inquired for the outfall, in order to test the water, but we were told that, although this farm had not been artificially drained, it was never supersaturated with moisture. . . . We must protest against other boards of health bringing what may become a great nuisance into the close proximity of dwelling-houses. We would, moreover, point to the risk in many soils of permanently damaging well-water if the fall of the ground inclines towards houses drawing their drinking-water from wells. With these precautions, and a good choice of soil, we see no reason why other towns, as well as Eton, should not do as it has done."

Composition and Quality of the Metropolitan Waters in May, 1872.—The following are Dr. Letheby's returns to the Association of Medical Officers of Health:—

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, &c.	Nitrogen.		Hardness.	
			As Nitrates &c.	As Ammonia.	Before Boiling.	After Boiling.
Thames Water Companies.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
Grand Junction	18·17	0·070	0·110	0·002	14·6	3·6
West Middlesex	17·93	0·039	0·147	0·000	15·1	4·0
Southwark & Vauxhall	18·50	0·074	0·130	0·003	15·0	4·0
Chelsea	18·37	0·079	0·147	0·002	14·8	4·0
Lambeth	18·93	0·101	0·111	0·002	15·0	4·0
Other Companies.						
Kent	20·93	0·013	0·217	0·000	20·1	6·0
New River	17·93	0·035	0·131	0·002	14·8	3·8
East London	18·33	0·052	0·166	0·002	15·0	4·2

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters the quantity of organic matter is about eight times the amount of oxygen required by it.

The water was found to be clear and nearly colourless in all cases but the following, when it was more or less turbid—namely, in that of the Lambeth, the Chelsea, and the Southwark and Vauxhall Companies, that of the Lambeth being very turbid.

The average quantity of water supplied daily to the metropolis during the preceding month was, according to the returns of the Water Companies to the Association of Medical Officers of Health, 105,457,575 gallons; and the number of houses supplied was 495,677. This is at the rate of 32·3 gallons per head of the population daily.

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

B. S. says that many Poor-law Officers were induced to sign petitions against Mr. Stansfeld's Public Health Bill before they had exactly mastered the subject. Our correspondent should read Professor Stokes's admirable address in the *Medical Times and Gazette*, p. 440, April 13, 1872.

Dr. A. P. Stewart is well known as a well meaning, puzzle-headed person, who shows his capacity for organising the sanitary administration of the country by indulging in personal abuse of anyone who differs from him. There is no need to refute Billingsgate.

E.—The *Dengue*, *Dandy*, *Breakbone*, or *Scarlatina Rheumatica*, is not a form of scarlatina properly so called, but a specific fever *per se*. It begins very abruptly; has an initial and a terminal rash. Its pyretological tracing differs from that of scarlatina, in having a lower temperature after the first exaltation. There is desquamation of the skin, and possible albuminuria. The blood has an abundance of *bioplasm*, as Beale calls it, though this is common to all fevers (see the *Indian Medical Gazette*).

B.—The question is *sub judice*, whether the poison of cholera enters the blood, deranges that fluid, and interferes with the action of the heart and lungs, causing intestinal flux as a secondary result; or whether it enters the intestinal canal, produces violent irritation, hyperæmia, shedding of epithelium, and hæmorrhage, as primary effects, with changes of the blood as secondary. The results of early treatment, the well-established facts of the benefit of seeking out and treating early cases of diarrhœa, give probability to the intestinal hypothesis. See (besides Niemeyer, translated by Latham) the Ninth Report of the Medical Officer of the Privy Council on the cholera of 1866. Mr. Simon's conclusions harmonise with Niemeyer's. The question of temperature is but broached; we do not grasp it as yet.

W.—We are grateful for the letter from a "Resident Medical Officer to a Workhouse," quoted from the *London Daily Chronicle and Clerkenwell News*. It overstates the case, and is too severe on certain amiable and public-spirited men; but it shows pretty conclusively how those persons have reckoned without their host who believe that the Poor-law Medical Officers are unable and unwilling to do sanitary duties. He is not just in calling the elaborators of certain schemes "an interested clique"; if he had said that they viewed men and things through tinted spectacles, it would have been enough.

The Sin of the Century.—The *Journal of the Gynæcological Society of Boston* for May, 1872, contains the history of a curious development of this matter. We gave, three years ago, a full account from the pen of an eminent Parisian Physician of the practices resorted to in France for limiting population. Other practices, still more actively criminal, for the prevention of pregnancy have been invented in America, and are already known here. Dr. Storer and other eminent American obstetricians deserve credit for speaking out. So long as a crime is little known, it is better to hush it up, in order not to spread the knowledge of evil. But when such a crime becomes widely prevalent, and is deemed by the ignorant to be no crime—only a matter of personal convenience—then there can be no doubt that the Medical moralist should speak out, as Dr. Storer did in his well-known "*Why not?*" We were not aware that the matter had been brought before the late Council at Rome by a French priest, with a view of getting the Council to consent to a relaxation of church discipline. We had always admired the steadfastness with which the Catholic Church had set its face, as the Bible everywhere does, against these unnatural practices, and hope she will be firm. How singular that a misdemeanour should prevail in France, because, as is alleged, of the scarcity of land and the difficulty of living, and hatred of expatriation; and in America, where land wants occupation, and population is a source of wealth! It will be said that the crime prevails only in the more refined and luxurious Eastern States of the Union; but it is a result which centuries of aristocratic refinement have not inflicted on England. Our women are sometimes accused of neglecting lactation, but never of refusing the risks and duties of pregnancy and childbirth.

The Baker Brown Fund.

This fund is being raised on behalf of Mr. Isaac Baker Brown, who is paralysed, and in great pecuniary distress.

Further List of Subscriptions.

	£	s.	d.		£	s.	d.
Amount previously advertised	346	14	0	Mrs. Derbyshire, Maidenhead	1	0	0
British Medical Benevolent Fund...	20	0	0	Dr. Smith, Weymouth ...	1	1	0
Dr. Warburton Begbie, Edinburgh	5	5	0	Dr. Moorhead, Weymouth	1	1	0
Dr. Marion Sims, New York	5	5	0	Dr. Collum, Surbiton ...	2	2	0
Mr. Winchester, Maidenhead	2	2	0	Mr. Lord, Hampstead ...	1	1	0
				Dr. Jelly, Madrid	1	1	0
				Mr. William Pretty, Lower Norwood	0	10	6

Treasurer and trustee, Dr. Forbes Winslow, 23, Cavendish-square, to whom subscriptions may be sent.

Vaccination Etiquette.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have to thank you for your kind opinion on the subject of "Vaccination Etiquette," and should now like to be informed of the way in which a District Vaccinator who invaded my district should be treated by his *confrères* for retaining to himself the whole of the fees he received from the Government, amounting to about £50 sterling, notwithstanding his being aware of the other vaccinators having acted differently. For instance, I vaccinated twelve persons myself by mistake, and I felt no regret in handing over the names to my *confrère* to whom the district belongs; and he in like manner sent me 150 names of persons vaccinated by him in my district, but as the service saved me a considerable amount of time and labour, I only accepted half the amount, besides allowing him the full amount for mileage. It is not the value of the money deprived that I care about, but the keeping up of the dignity of the Profession I have the honour to belong to that induces me to trouble you. I am, &c. K.

*** Appeal to the highest Government Professional authority within reach, and unless redress be obtained, and an apology be made, cut the offender.

Antiquarian.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Charles Reade said that to save his neck from the halter or his soul from damnation many a critic could not write a chapter. An eminent publisher, the other day, expressed his opinion that a certain style of writing never succeeds if at all jocular. The cap and bells are sadly out of place in Medical literature, the slightest levity ill-timed—discordant. But as one Practitioner finds that every care vanishes the moment he enters under his own roof, and a second seeks solace in the bottle in the endeavour to distract the mind from worries, Professional as well as private, the third may incline to scribbling ephemeral nonsense, feeling very grateful to the editors of Medical journals who insert contributions

such as they are. This evening, for the first time in life, the accident of laceration of the perineum occurred—a young primipara, rapid labour, the arch of the pubis too acute, the child cocoanut-headed. Now before me are appeals for help, official wiggings, and unpaid bills. Taking thought will not add a cubit to one's stature, working ever so hard will not increase income, but it will add vexation and sorrow and several nails to the coffin. Why not mentally battle with the skeletons—shake off the old man of the sea? Why not for an hour find comfort in the pen? Here goes: Read in De Quincey that he used to take sixteen ounces of laudanum daily. Read in the "History of Domestic Manners and Sentiments in England during the Middle Ages," by Thomas Wright, the following facts:—Our ancestors went to bed perfectly naked, but covered up their heads; all audiences and gossip took place in ladies' bed-rooms; stays and umbrellas were introduced by the Anglo-Normans; hats were worn indoors; medicinal herbs grew in every garden; ladies were nurses, Doctors, and sometimes clever poisoners. A co-respondent not merely had to pay damages, but also supply another wife. A mother would be punished if her child was scalded. As a rule, the ladies appear to have been good, hard-working wives, fond of flowers and animals, music, and gossip, especially at the baths. They enjoyed good health, as the want of light prevented late hours. Many of these bold barons in the days of chivalry must have been sad rips, drunk every night, although warned that apoplexy, paralysis, colic, quinsy, dropsy, jaundice, gravel, and gout would follow. Sir Harley de Wimpole, in his cups, knocked his lady down, broke her nose, and smashed two front teeth. A knight and his lady, dining in a garden, had a *difficulty*, she falling into the water; afraid of consequences, the husband chartered a boat, but pulled up the stream, stating that, contradicting to the last, her body would float against instead of with the current. The coachmen who refuse to drive Edinburgh Doctors on Sundays would be startled to hear that in the good old times they would have been thrashed and thrust into irons. Many tales of the gallantry, not to mention the gluttony, of the clergy, ever prominent at public dinners, where they had swans and peacocks dressed in their feathers, the beaks and the feet gilt. In one of the religious plays or mysteries, Noah and his wife are supposed to have had a terrible tiff—she insisting on taking her cronies into the ark, had to be forcibly fetched out of a public-house by a policeman at the very last moment when the bell was ringing. The practice of swaddling infants prevailed generally; but at a very early age a child would be dressed up as the West-end Practitioner of the period (stethoscope, clinical thermometer, "our obstetric bag") if his cruel parents intended him to physic, lather, and shave.

Rat-a-tat at the door. *Wanted* at the cottages some distance off—a case of hæmorrhage. The wind blows a hurricane, the rain pelts down in drenching torrents; the dogs, Harry and Toby, wag their tails affectionately; but, preferring the society of the kitten on the hearth-rug, steadily decline the invitation to follow their unhappy master this dark, tempestuous night. Well, duty is duty—*me miserum!*— KISMET.

COMMUNICATIONS have been received from—

Dr. Drewry Ottley; Dr. Powell; Dr. Spender; Dr. P. W. Latham; Mr. J. Johnston; Mr. G. T. Keele; Mr. R. H. Hilliard; Mr. S. Haynes; Dr. Aldis; Dr. Copeman; Mr. S. Fisher; Dr. Vinen; Dr. Kellea; Mr. Talfourd Jones; Mr. Thomson; Dr. C. Handfield Jones; Dr. C. J. B. Williams; Dr. James Russell; Mr. J. Chatto; Mr. C. Williams; Mr. Mahomed; Dr. Cheadle; Mr. R. Brandon; Dr. Lee.

BOOKS RECEIVED—

Jahrbuch für Balneologie, Hydrologie, und Klimatologie, Herausgegeben, von Dr. E. Heinrich Kisch—Sick Children: a Lecture delivered at the Royal Artillery Institution, Woolwich, by Francis R. Hogg, M.D., R.H.A.—The Law relating to Vaccination, by Danby P. Fry, of Lincoln's-inn, Barrister-at-Law, and Inspector under the Local Government Board—Handbook for the Use of the Members of the American Medical Association—The Fallacies of Teetotalism, by Robert Ward, Editor of the *North of England Advertiser*—Report on Small-pox, Vaccination, and Revaccination to the Town Councils of Lincoln and Cumberland, Rhode Island, by J. B. Greene, M.D.

APPOINTMENTS FOR THE WEEK.

June 8. Saturday (this day).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

Royal Institution, 3 p.m. Prof. Roscoe, "On the Chemical Action of Light."

10. Monday.

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

11. Tuesday.

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

12. Wednesday.

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Epidemiological Society, 8 p.m. Dr. Smart, "On African Epidemics of Asiatic Cholera."

13. Thursday.

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

14. Friday.

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

Queekett Microscopical Club, 7 p.m. Extra Meeting, for Conversation and Exhibition of Objects only.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 1, 1872.

BIRTHS.

Births of Boys, 1125; Girls, 1109; Total, 2234.
Average of 10 corresponding weeks, 1862-71, 2039·0.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	689	647	1336
Average of the ten years 1862-71	672·8	607·4	1280·2
Average corrected to increased population	...	...	1408
Deaths of people aged 80 and upwards	...	...	53

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	3	6	2	2	6	1	2	4	2
North ...	751668	17	12	6	5	17	1	2	2	...
Central ...	333887	...	9	1	...	17	...	2	2	...
East	638928	9	9	1	2	10	1	3	3	5
South	966132	8	23	8	1	22	...	4	1	8
Total	3251804	37	59	18	10	72	3	13	12	15

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·996 in.
Mean temperature	57·7°
Highest point of thermometer	73·2°
Lowest point of thermometer	42·3°
Mean dew-point temperature	49·2°
General direction of wind	W.S.W.,W.,&N.W.
Whole amount of rain in the week	0·15 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 1, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending June 1.	Deaths Registered during the week ending June 1.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·1	2234	1336	73·2	42·3	57·7	14·28	0·15	0·38
Portsmouth ...	115455	12·1	68	55	72·4	40·0	55·6	13·11	0·00	0·00
Norwich	81105	10·9	60	41	73·2	40·5	56·9	13·83	0·10	0·25
Bristol	186428	39·8	126	73	61·0	44·0	53·6	12·00	...	...
Wolverhampton ...	69268	20·5	64	27	71·8	38·7	53·9	12·17	0·47	1·19
Birmingham ...	350164	41·7	304	156	69·6	41·6	54·4	12·44	0·05	0·13
Leicester	99143	31·0	114	41	73·2	36·7	54·3	12·39	0·34	0·86
Nottingham ...	88225	41·2	66	34	74·4	39·2	55·5	13·05	0·00	0·00
Liverpool	499897	97·9	434	243	64·2	47·4	53·4	11·89	0·91	2·31
Manchester ...	352759	78·6	369	191	69·5	41·0	55·2	12·89	0·85	2·16
Salford	127923	24·7	135	50	67·0	40·0	52·7	11·50	0·90	2·29
Oldham	84004	20·2	80	39	...	...	...	...	...	...
Bradford	151720	23·0	133	98	66·4	43·6	55·0	12·78	0·09	0·23
Leeds	266564	12·3	167	122	69·0	40·0	54·2	12·33	0·04	0·10
Sheffield	247847	10·9	207	127	70·5	41·7	54·2	12·33	0·25	0·63
Hull	124976	35·1	99	61	73·0	40·0	54·7	12·61	0·22	0·56
Sunderland ...	100665	30·4	84	46	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	112	54	62·0	48·0	52·4	11·33	0·00	0·00
Edinburgh	205146	46·3	136	113	...	...	...	...	...	...
Glasgow	489136	94·8	437	300	...	...	...	...	...	...
Dublin	310565	31·9	166	142	69·4	35·5	51·2	12·33	0·56	1·42
Total of 21 Towns in United Kingd'm	7393052	34·0	5595	3319	74·4	35·5	51·6	12·55	0·31	0·79

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 30·00 in. The highest was 30·20 in. on Sunday evening, the 26th ult., and the lowest 29·79 in. on Friday evening.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2156 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

CLINICAL LECTURES ON INTESTINAL OBSTRUCTION.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

LECTURE IV.

ON LUMBAR COLOTOMY FOR THE RELIEF AND CURE OF RECTAL OBSTRUCTION AND DISEASE.(a)

(*Concluded from page* 566.)

I WILL now proceed to consider the operation of colotomy *as a curative agent*—as an operation by means of which repair may go on uninterruptedly in the seat of the disease, even to a cure, and by which relief to local pain may be given and life prolonged; for I have something more than a belief that this result may be looked for in many cases, if not all, of simple ulceration of the bowel, as well as in cases of syphilitic stricture.

In cancerous disease such a consequence of the operation can hardly be expected; and yet, in the case now to be related, it would appear as if a curative process has taken place—for the ulceration that existed before the operation has now ceased, and a smooth, non-ulcerating, nodular structure alone remains. The structure exists as it did before, but clearly no progressive mischief is present. The patient suffers no pain from the local affection. The ulceration that existed has skinned over, and presents a smooth, unbroken surface, and now secretes a clear mucus. No blood or broken-up tissue comes away after examination.

Stricture of Rectum—Colotomy—Recovery.

(Reported by Mr. BARNARD.)

Elijah B., aged 38, was admitted into Guy's Hospital on August 31, 1871, under Mr. Bryant, with stricture of the rectum. He had been a healthy man up to eighteen months ago, when he had diarrhœa, and this has never left him for long. He has never had any pain in the bowels. He has at times passed blood with his motions. He has lost flesh. At times his bowels do not act for several days; his stools are always small. A stricture of the rectum had been detected by a medical man before his admission. On admission the anus appeared very patulous, and a narrow stricture was detected about one inch and a half up the bowel. It was so small that the top of the finger could not be passed through it; it was also ulcerated.

Oct. 10.—Mr. Bryant performed colotomy in the left loin, making the oblique incision. No difficulty was experienced in the operation. The bowel was stitched to the margin of the wound and then opened.

On the second day after the operation the man said he felt greatly relieved; the wound did well in all respects, and in one month the man had so convalesced as to walk out of the Hospital.

February 23.—Quite comfortable in all ways. Ulceration apparently healed; surface smooth and painless. Pure clear mucus alone escaped after examination.

I took this case to be one of cancer, for it was difficult to come to any other conclusion; and if it be, it certainly speaks better for colotomy as a curative agent in this affection than I have hitherto regarded it, and it is an extra argument in favour of performing it at an early period of the disease.

Again, in cases of recto-vesical fistula, where ulceration takes place in the rectum and makes its way into the bladder, the relief given by colotomy is very striking; for I must remind you that patients the subjects of this condition are enduring the pain of ulceration of the rectum as well as that of a foreign body in the bladder. It seems, moreover, that this ulcerative action, although at times cancerous, is more frequently of a simple kind, and that, as a consequence, is quite capable of a complete cure. I have had four such cases to treat. In one (published in the *British and Foreign Review*, January, 1869) the ulceration completely healed after the operation. In two others, which I have related in detail at the Clinical Society, 1872, the same result seems to have taken place; for although in one the fistula is still clearly open, no signs of ulceration are present, and in the second, from recent intelligence, it appears that for the last three months the fistula has closed. I operated upon him three years ago, and up to three months ago urine passed into the rectum downwards through the anus and upwards through the artificial anus in the left loin; for the last three months, however, no such escape has taken place. He can retain his urine as well as ever he could. He has no bladder irritation or rectal irritation. All his urine comes the right way, and all his motions pass through the loin. He suffers no pain whatever, locally or generally; and beyond the slight inconvenience—for the patient says it is only slight—of passing his motions through the loin, he is as well as ever he has been in his life.

The fourth case has only recently died, and I now show you the preparation removed after death. The disease is clearly villous and very extensive in its nature; it has made its way into the bladder. The operation in this case gave relief and prolonged life, but no more. Unlike the other three, it had no curative tendency; but the three are enough to support the views I would now wish you to bear in mind.

The same result may also be looked for in a certain class of cases of ulceration of the rectum that is not cancerous—a class that, if left alone, will go on to produce stricture, and that does not get well if left alone. I allude to severe examples of simple ulceration of the rectum, and to syphilitic disease. All Surgeons know the obstinacy of those affections, and the almost invariable tendency they have to progress and to end in a fatal stricture. The parts cannot heal for the same reason that an ulcer leading down to the muscles cannot heal so long as muscular movement is allowed, and that the painful ulceration of the rectum won't heal till the sphincter muscle is divided. Surgeons now also know how rapidly ulcers so placed do heal when splints are applied and muscular action is prohibited. When the fibres of the sphincter ani are paralysed by a superficial section of the sphincter muscle, surely the same result may be expected in those cases of ulceration of the rectum to which I now allude, when the bowel is left at rest, and the fæculent flow is diverted from the natural channel through an artificial opening as made by colotomy. In the case now upstairs in Naaman ward, in which cancerous disease was supposed to exist, this result has been already recorded to have partially taken place. In the case of recto-vesical fistula the same healthy action in kind, although more marked in degree, has likewise been recorded; and I believe that if colotomy were performed in many more examples of severe ulceration of the rectum, syphilitic and otherwise, the same result might be recorded.

With this object I performed the operation in February upon a young married lady, aged 24, a patient of Dr. Wise, of Plumstead, for extensive ulceration of the rectum and stricture of three years' standing, with so far excellent results. With the same object I hope to perform a like operation upon that woman in Astley Cooper ward whose case I have already read to you, with recto-vaginal and anal fistula, the result of stricture and ulceration. But remember that when the operation is performed with a curative object it must not be postponed to too late a period; it should be undertaken when all other means are clearly of little use, and when the disease, if left alone, must progress to its too certain end.

THE OPERATION OF COLOTOMY.

For irremediable stricture or mechanical obstruction of the rectum from any cause, *Callisen's* operation of opening the colon in the left loin should be followed. When the seat of obstruction is higher than the rectum, and it is a point of doubt whether it be in the sigmoid flexure or transverse colon, *Amussat's* operation in the right loin should be performed; for Callisen first suggested colotomy in 1796, and applied it to the descending colon, and Amussat revived the operation, and extended it to the ascending colon, in 1839.

The colon in this position lies behind the peritoneum, immediately beneath the transversalis fascia. The kidney is in close contact with it above; and in one case I operated upon this organ was placed so low down as to fill in the space between the rib and pelvis, and it had to be pushed upwards to allow of the colon to be seen and opened.

The operation is to be performed as follows, in the left loin:—The patient is to be placed upon his right side, with a pillow beneath the loin in order to arch somewhat the left flank, and turned two-thirds over on to his face. The outer border of the quadratus lumborum muscle is then to be made out, for this muscle is the Surgeon's main guide. An incision is then to be made, four or five inches long, beginning one inch and a half to the left of the spine, below the last rib, and passing downwards and forwards in front of the anterior spine of the crest of the ilium, the line of the incision passing obliquely across the external border

(a) Reported by Mr. Henry Clarke (student).

of the quadratus lumborum muscle about its centre, and taking the same direction as the nerves which traverse this part. By this incision the integuments and fascia are to be divided, and the external border of the quadratus muscle exposed; the abdominal muscles being laid open in a direction to the same extent as the external wound. All vessels are to be secured. The transversalis fascia will next come into view, and beneath this will be the colon; a layer of fat generally intervening. The fascia is to be opened with caution. In the loose fat and cellular tissue beneath the fascia the colon is to be found. When distended it comes at once into view on the Surgeon dividing the fascia; when empty some little trouble may be experienced in hooking it up with the finger. I have found on several occasions great help in doing this by rolling the patient over on to his back at this stage of the proceedings. The bowel falling into the finger is thus readily caught. Allingham says (St. Thomas's Hospital Reports, 1870) that from more than fifty dissections he has always found the descending colon to be situated half an inch posterior to the centre of the crest of the ilium; the centre being the point midway between the anterior superior and posterior superior spinous processes. He has never known this point to fail him. When difficulties are felt in the operation he believes they are from the colon being looked for too far from the spine; and in these views I cordially agree. When the bowel has been seized it should be partially rolled forwards, in order to expose its posterior surface; for if this be not done there is a risk of the Surgeon wounding the peritoneum, as it is reflected from its anterior surface on to the anterior abdominal walls. The bowel having been drawn up to the wound, is then to be secured to the integument by the passage of two double ligatures introduced through one margin of the wound, then through both sides of the bowel, and lastly through the second margin; these ligatures being firmly held by an assistant. The bowel should then be opened by a longitudinal incision about three-quarters of an inch long over the ligatures that have traversed its canal. The centre of the ligatures are then to be drawn out and divided into two portions; with these the two sides of the opening in the intestine are to be fixed to the margins of the wound. Two or more stitches may then be introduced to make the artificial anus secure.

The margins of the wound may be oiled, to guard against the irritation of fæces, and the patient placed in bed. At times the fæces escape in large quantities directly the bowel is opened; at others some slight fæculent discharge occurs at the time, the larger flow taking place later. This is not, however, a point of any importance, and the Surgeon should take no measures to get the bowels to act. Indeed it is better, as far as the operation is concerned, that the flow be postponed; for within an hour or so the parts about the wound become sealed with lymph, and thus the risks of extravasation are diminished.

After the operation a good sedative should be given, such as opium, morphia, or chloral, and the recumbent position maintained; a piece of oiled lint covered with oakum, and kept in place with a soft towel, being the best local application.

The sutures may be removed on the fourth or fifth day, according to circumstances, and the most perfect cleanliness observed. Good food and stimulants may be given within a day or so of the operation, repairs as a rule going on favourably.

When the wound has cicatrised the patient may get up, a folded napkin fastened on with a lumbar belt being a good application. The ivory ball or plug that has been advised appears to be a useless instrument; it cannot be kept in its place, and does not, therefore, prevent the prolapse of the bowel that is said to be so likely to follow the operation. An indiarubber ball, with enough of one of its sides taken away to cover in the wound, is an excellent application. It is capable of holding any little fæces or fluid that may pass; it retains wind, and is a good pad. Three of my patients are now wearing it, and express themselves as feeling great comfort from its use. With the oblique incision, as suggested, the prolapse of the bowel that is said so commonly to take place does not appear to be very troublesome; it takes place only to a very limited degree, the incision falling into the line of the lumbar integumental fold.

Should contraction of the orifice take place—a condition I have not yet met with—a sponge tent may be daily introduced. Mr. Pollock gives a case in Holmes's "System" where such treatment was a necessity.

After convalescence it is well occasionally to wash out the lower portion of the bowel with warm water, for some fæces are apt to pass the artificial opening and rest in the rectum, causing irritation. When the anal end is open it is best to do this through the natural opening; when it is closed, through the artificial.

I have performed this operation now at least sixteen times—in four for vesico-intestinal fistula, in two for pelvic tumour, and in ten for stricture of the rectum. One of the cases of vesico-intestinal fistula lived four months after the operation, and died with suppurating kidney, but entirely relieved from all vesical and rectal distress (*British and Foreign Review*, January, 1869); two are now alive and enjoying life, suffering very little inconvenience indeed from the artificial anus (Clinical Society, 1872). One of the patients with pelvic tumour died on the third day from a rupture of the tumour; the second is in good health and comfort. Of the eleven other patients, one lived eighteen months after the operation in case, dying from supposed cancer of the liver after a month's illness; four died within four months; and five others are alive, one having been operated upon in May, 1870, a second in November, 1872, and three this year.

Curling has performed and recommended the operation in seventeen cases, and in ten of these the patients survived over periods varying from two to eighteen months. Allingham has had ten cases. Two are now living, three and four years after the operation; one survived it four years and a half, and another nineteen months; five lived a few months, and one a few days.

These results cannot be regarded otherwise than with satisfaction; for it must be remembered that in all these cases the operation was undertaken when life was threatened, and the distress from the local disease was severe and otherwise irremediable. The operation is a good one in all cases of vesico-intestinal fistula, when solid fæces flow with the urine; in all cases of stricture of the rectum, as soon as the obstruction becomes serious and local distress great; in all other cases of mechanical obstruction to the rectum from pelvic causes, when no less severe measure for relief can be suggested; and last, but not least, in extensive ulceration of the rectum—cancerous, syphilitic, or simple—when local treatment fails to give relief, and local distress is great—when the general powers are evidently giving way from the local disease, and the suffering severe, quite irrespective of all mechanical obstruction.

In no case, however, should the operation be postponed till the patient's powers are failing, for the prospects of recovery are greatly lessened, and of convalescence rendered impossible.

LECTURES ON THE COMPARATIVE ANATOMY OF THE ORGANS OF DIGESTION OF THE MAMMALIA.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN FEBRUARY AND MARCH, 1872,

By WILLIAM HENRY FLOWER, F.R.S.,
Hunterian Professor.

Lecture VI.

(*Concluded from page 622.*)

The tongue of the lion and of the other *Felidæ* is long, flat, and tolerably broad, with thin edges. It differs from that of the dog in the great development of the conical papillæ, which over the anterior fourth of the dorsal surface (except near the edges, where they are small and simple) are remarkably modified, resembling long compressed recurved horny spines or claws, at the front edge of the base of which on each side is a foliated tuft, softer in structure. The spines are largest near the median line, where they attain the length of one-fifth of an inch. They give the part of the tongue on which they are found the appearance and feel of a coarse rasp. Such papillæ cover the sides of the tongue, as far back as the circumvallate papillæ, their points being directed backwards and inwards, but in the middle part of the dorsum they become soft and simple. Behind the circumvallate papillæ, at the root of the tongue, are a group of very large, flattened, soft, and pointed papillæ. The fungiform papillæ are very small and inconspicuous. The circumvallate are disposed in two linear rows, four to six in each, converging posteriorly. A lytta, resembling that of the dog, but very much smaller, is found near the apex of the tongue. The faucial passage between the tongue and the glottis is remarkably elongated, and in connexion with the extensibility of this region, which is supposed to have something to do with the characteristic roar of the lion, as it is not found in the smaller members of the genus *Felis*,

the anterior cornu of the hyoid is in great part ligamentous. The salivary glands generally resemble those of the dog, the zygomatic, as described by Hunter,(a) being well developed. The lower end of the œsophagus, for a short distance before entering the stomach, has its mucous membrane elevated into transverse folds resembling valvulæ conniventes. The stomach is oval in form, the pylorie part sharply bent upon the cardiac sac, and the cæcum, as in all the *Felidæ*, is short, simple, and rather conical, not convoluted as in the dog. In a lion dissected by Hunter the small intestine was four times the length of the body, and the large intestine two-thirds that length. The cæcum was two inches long in one case and three inches in another.

The liver of the *Felidæ* resembles that of the dog in its general mode of division, though differing considerably in proportionate size of the lobes, the left central and the right lateral being both very small, while the right central is very largely developed. The caudate is of moderate size, and the Spigelian not divided by a fissure.

The other Æluroid or cat-like carnivores constitute the families *Cryptoproctidæ*, *Viverridæ*, *Hyænidæ*, and *Protelidæ*. Of the former, represented by a single species (*Cryptoprocta ferox*) from Madagascar, the visceral anatomy is at present unknown. The *Viverridæ* are the civets, genets, paradoxures, and ichneumons. The tongue in some of these is covered with simple conical papillæ of tolerably uniform characters, but in many (especially the herpestine or ichneumon-like forms) their papillæ are enlarged and otherwise modified over a limited area in the middle of the anterior part of the organ, forming a distinct rasp-like surface. They nearly all possess a simple conical or blunt cylindical cæcum, but in one Indian form (*Arctictis*, the binturong), this part is exceedingly rudimentary, and in *Nandinia binotata*, a viverrine animal from the West Coast of Africa, it is wanting altogether.

The Hyænas resemble generally the *Viverridæ* in their visceral anatomy. The tongue has a circular patch of enlarged and pointed conical papillæ on its dorsal surface, and a small "lytta" within. The circumvallate papillæ are but two in number, and very small; the stomach is less elongated than in *Felis*, the fundus being very little developed. The small intestine is about eight times the length of the large, and the cæcum about eight inches long.(b)

The Proteles from South Africa is an animal closely allied to the hyænas in many characters, though differing greatly in habita and food, and interesting as presenting a corresponding modification in its organ of digestion. Although exceeding a common fox in size it seems to have no power of killing or eating entire vertebrated animals, but subsists chiefly on insects, larvæ, and the viscera or other soft parts of higher animals in a decomposing condition. Its molar teeth differ from those of all other carnivores, and more particularly from its nearest allies, the hyænas, by their exceeding small size and rudimentary characters. The tongue is large and spatulate, covered in front with very large, circular, boss-like, conical papillæ. The submaxillary glands are greatly developed, as in insectivorous animals generally; their ducts open on the inferior surface of a leaf-like projection of the mucous membrane of the base of the frænum, with a dentated anterior edge. The stomach is of globular form, with a very distinct pyloric portion, the muscular coat of which is greatly developed; and the pylorus is closed by a strong valve leaving a crescentic aperture, the whole organ closely resembling that of the armadillos, which the proteles resembles in the nature of its food, though so widely removed in zoological position. The intestinal canal is not five times the length of the body, and the cæcum short and globular.(c)

The Arctoid or bear-like carnivora include the true bears (*Ursidæ*), the racoons and their allies (*Procyonidæ*), and the great family of weasels, martens, gluttons, ratels, badgers, otters, etc. (*Mustelidæ*). Though so different in external appearance and habits, these animals present many common characters in their organisation. The tongue is generally very extensile, and the conical papillæ are small and soft, the fungiform papillæ well marked, and the circumvallate papillæ numerous (seventeen in number, and forming a complete V in *Ursus labiatus*). The salivary glands resemble those of the dog, though the zygomatic may be very small, or wanting. A lytta is found in the tongue of most species, though not in all.(d) The stomach has the usual characters of the other members of the order, but the cæcum is invariably absent, the only distinction between ileum and colon being the sudden change of character of the mucous membrane, especially the absence of villi in the latter, and the presence of a large patch of agminated glands at the lower end of the former. The absence of cæcum in this group is rather remarkable, as it contains the least purely carnivorous members of the order, and in other groups the development of the cæcum seems to bear some proportion to the more or less vegetable nature of the aliment. The liver is divided in the same manner as in other carnivora, but the relative size of the lobes varies much in different genera.

FIG. 24.

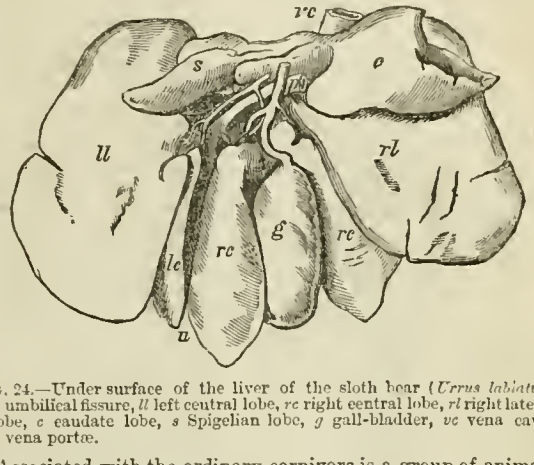

FIG. 24.—Under surface of the liver of the sloth bear (*Ursus labiatus*) *u* umbilical fissure, *ll* left central lobe, *rc* right central lobe, *rl* right lateral lobe, *c* caudate lobe, *s* Spigelian lobe, *g* gall-bladder, *vc* vena cava, *p* vena portæ.

Associated with the ordinary carnivora is a group of animals which appear to be modifications of the same type adapted for an aquatic mode of life. These constitute the sub-order *Pinnipedia*, including the seals, sea-bears, and walrus. These are purely carnivorous, feeding mainly on fish, but also on marine invertebrates—as crustaceans and molluscs and annelids.

In the common seal (*Phoca vitulina*), taken as a type of the group, the characters of the mouth and teeth are in accordance with the habits of catching and swallowing slippery living prey—the gape being wide and the teeth much alike in character, sharp-pointed and recurved. The lips are thick and not very flexible, the lining membranes of the mouth smooth, the ridges of the hard palate very little developed and irregular. The tongue is short, broad, flat, and bifid at the apex, and has very little power of extension. The upper surface of the anterior two-thirds is covered with thick, short, soft, blunt conical papillæ; in the middle part of the dorsum they become pointed, with the apices directed backwards; at the tip and the sides they are round. Among them are scattered a few round fungiform papillæ, scarcely larger than the conical, and not very distinct from them. The posterior third of the dorsum is covered with greatly corrugated soft mucous membrane without papillæ, resembling that lining the mucous membrane and soft palate. A pair of papillæ with flattened round tops, which rise from among these corrugations, may be considered as rudimentary circumvallate papillæ, although they have no distinct surrounding wall. The tonsils are quite distinct, as lobulated oval protuberances of the mucous membrane, situated in a deep fossa with elevated walls, deeper and more distinct anteriorly than behind. The lining membrane of the pharynx and œsophagus is much folded, the latter in a longitudinal direction. There is no uvula.

The rudimentary condition of the salivary glands of the seal has often been noticed, and it is commonly stated in works on comparative anatomy that the parotid is absent. This is, however, far from being the case, as a preparation dissected by Mr. Lidderdale just added to the Museum shows. This gland has the usual situation just below the cartilaginous auditory meatus; it is very much flattened, of circular outline, about an inch in diameter, and much lobulated. The duct, formed by the union of three principal branches, runs directly forwards across the masseter muscle, and opens into the mouth opposite the hinder part of the crown of the posterior upper molar tooth. The submaxillary gland is solid, compact, and oval, flattened on its deeper surface, three-quarters of an inch in length, and of nearly the same breadth; its duct, accompanied at its commencement by several semi-detached glandular lobules, runs forward in the usual course, and opens in the floor of the mouth,

(a) "Essays and Observations," vol. ii., p. 38.

(b) For the anatomy of *Hyæna brunnea*, with references to dissections of other species, see Murie, *Transactions of the Zoological Society*, vol. vii., p. 568.

(c) See *Proceedings of the Zoological Society* (1869), p. 474.

(d) It is wanting in the otter, but immensely developed in the kinkajou.

rather farther back and more distant from the middle line than usual, by the side of the root of the frænum of the tongue, and without any papilliform elevation of the mucous membrane. There is also a small and slender accessory submaxillary (or sublingual) gland, about half an inch long, placed on the inner side of Wharton's duct, about midway in its course, and which has a distinct duct an inch in length, opening into the side of the floor of the mouth about an inch behind the last. The buccal glands are not largely developed, and nothing corresponding to the zygomatic gland was found.

Fig. 25.

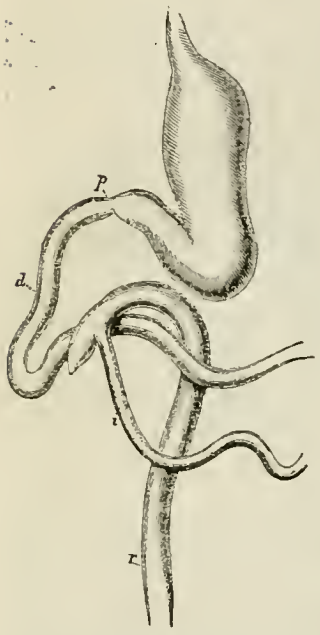

Fig. 25.—Diagrammatic view of the position of the abdominal alimentary canal of the seal (*Phoca vitulina*), the coils of small intestine being omitted. The lower end of the stomach is somewhat displaced to the left, so as to show the arch of the colon, which when *in situ* it conceals: *p* pylorus, *d* duodenum, *i* ileum, *r* rectum.

The stomach of the seal is of very singular form (see Fig. 25), being elongated, tubular, and sharply bent on itself at the junction of the cardiac and pylorie portions. The œsophagus enters at one end by a wide funnel-shaped aperture; but the pylorus has thick muscular walls and a very contracted opening, apparently to prevent the passage of undissolved fish-bones into the intestine. The latter canal, as in most piscivorous animals, is narrow, simple, and of great length—sixteen times the length of the body in the example dissected by Hunter. There is a short conical cæcum, and a simple colon, considerably less than the length of the body, the position of which is shown in the figure. The liver is divided into lobes in the same manner as in the other carnivora, but these lobes are partially subdivided by numerous notches and fissures, and their relations at the attached or posterior border somewhat modified by the dilatation of the vena cava at this spot into an immense sinus. The gall-bladder is present as in all carnivora, but it is peculiarly curved, its fundus being directed to the upper surface, and not the free edge of the liver. There are usually two or three small hepato-cystic ducts entering the gall-bladder near its neck. The common gall-duct has a considerable oval dilatation within the walls of the duodenum, into which the pancreatic duct enters.

The visceral anatomy of the sea bears (*Otariidæ*) and the walrus (*Trichichidæ*) appears to differ but little from that of the *Phocidæ*. They all have the same form of stomach, long narrow intestine, small cæcum, and short simple colon.(e)

The New Hospital at Paris.—The Administration of Public Assistance is about to erect a new Hospital, containing 550 beds, at Ménilmontant—one of the districts of Paris in which the poor abound, and which is too far removed from the other Hospitals. It is to consist of four separate pavilions, having spacious wards, which are not to contain more than twenty-two beds, while there are also to be numerous rooms with only one, two, three, or four beds. Each ward is to have its separate staircase, and the patients will be raised by lifts while lying in their beds. On the first stage of the pavilions there are to be galleries in the form of terraces, where convalescents may be in fine weather, protected by awnings. On one side of the four pavilions a lying-in establishment, one storey high, and surrounded by gardens, is to be erected. In another separate garden the small-pox patients are to be provided for. The total expense is estimated at 9,343,000 fr., of which 1,600,000 fr. have been expended in the acquisition of the site.—*Union Méd.*, June 4.

(e) For the anatomy of the walrus see Owen, *Proceedings of the Zoological Society*, 1853, p. 103; Murie, *Transactions of the Zoological Society*, vol. vii., p. 411.

ORIGINAL COMMUNICATIONS.

CONSIDERATIONS RESPECTING THE PRODUCTION OF HEAD SYMPTOMS.

By C. HANDFIELD JONES, M.B., F.R.S.,
Physician to St. Mary's Hospital.

(*Continued from page* 655.)

10. Dr. Peacock (Pathological *Transactions*, vol. xvii., p. 6) records the case of a boy, aged 4, who died with an abscess containing eight ounces of pus in the right middle cerebral lobe, extending close to the convolutions. It was surrounded by indurated tissue containing glomeruli, and a few similar corpuscles were present in the right corpus striatum and optic thalamus. Some lymph on the surface of right hemisphere; left side of brain, spinal cord, membranes, and other organs sound. The illness lasted about six months. The first symptom was a fit, which left him permanently and completely paralysed on left side. Three months before death there was right ptosis, dilatation of both pupils, loss of vision in right eye, and imperfect in left, pain in right temple. The ptosis disappeared. He died in convulsions. Was very intelligent. The record of this admirably observed case may be thought favourable to Dr. Hughlings-Jackson's view, as indications of material lesion were found in the right basal ganglia. Yet I think it can hardly be contended that the change in these ganglia was sufficient to produce complete hemiplegia, and, besides, it is quite possible that it might have been an indication of commencing decay in the centres from cessation of their function during six months. Possibly, as the abscess was of large size, the channels for the conveyance of the will to the motor centre were so extensively destroyed as to stop communication. Yet the abscess may have enlarged considerably in the last six months, and the induration have extended considerably beyond its limits at the time the hemiplegia occurred. Moreover, the latter, if produced by induration, should have occurred gradually, whereas it was complete from the first. I am therefore most disposed to attribute the hemiplegia to the irritation caused by the abscess, or to the arachnitis. The paralysis of the optic centres and of portions of the third nerves cannot be referred to any lesion of these districts. They seem to me, like the convulsions, to be results of irritation. This is the more probable as the ptosis disappeared. This case may be compared with Case 6—one of hydatid cysts. In both the intelligence was acute, there was blindness, head pain, and death by convulsions. But the paralysis differed much in the two cases, and this difference it does not seem possible to explain by any lesion that was detected.

11. Dr. Cholmeley (Pathological *Transactions*, vol. xix., p. 23) records the case of a female aged 24, who when admitted was quite unconscious and could not be roused; reflex movements and hurried breathing were produced by pinching and tickling. There appeared to be no paralysis of the limbs or face; the limbs were now and then slightly moved. The urine was non-albuminous. Axillary temperature last two days 100·8°. She died suddenly on the fourth day after admission; there was no stertor nor convulsion. She had been ailing for about six months with apparently chronic rheumatism; last nineteen days had severe and incessant headache. Four days before admission she suddenly became unconscious, and talked wildly; had fits of shivering for four days; the day after she seemed paralysed. Pia mater of hemispheres much congested, most on left. An abscess in left anterior lobe, two inches by one inch and a half, bounded behind by anterior commissure, with well-defined dark borders, not extending to base; adjacent cerebral tissue firm, not congested; nothing else morbid anywhere. No hemiplegia seems to have existed in this patient, only paralysis of both hemispheres and of the vaso-motor centres. As the disease was acute, this could hardly have been caused by any change of tissue proceeding from the abscess, and certainly not by anæmia. It was produced, I believe, much in the same way as it might have been had a clot occupied the site of the abscess. Was not the sudden death in like manner due to some morbid impression communicated to the vagal nuclei, and causing inhibitorily arrest of cardiac action? Such stoppage of respiration or of circulation is, I believe, by no means rare.

12. The following case is taken from my Lumleian Lectures:—P. S., aged 47, male, syphilitic, suffered with paraplegia coming on gradually; the palsy was blended with a good deal of rigidity and some sensory disorder, and much variation of temperature in the affected parts. Other symptoms were

hiccough, vomiting and headache, double vision, slight temporary ptosis, some paralysis of sphincter vesicæ, and latterly much delirium. Scarce any affection of upper limbs. The illness lasted about five months. The brain was healthy, with the exception of two tubercles situated at the antero-inferior part of the pons Varolii. The larger was about the size of a small bean, and lay just beneath the most superficial layer of transverse fibres, nearly on the median line; the smaller was the size of a pea, more superficial, and lay close to the median line. The cord was microscopically examined, but no exudation or grannle cells were found anywhere. It appeared quite normal to the naked eye. The kidneys were tolerably healthy. There can be no question in this instance that the tumours were the cause of the symptoms, and yet it seems impossible to accounnt for the latter by the local lesions. The tubercles caused irritation, which was conveyed upwards to the hemispheres and nuclei of the third, and downwards to the lumbar enlargement of the cord. The brachial escaped this morbid influence, just as it does so many others that cause paraplegia, probably by having a stronger organisation.

13. Dr. J. W. Ogle, in Pathological *Transactions*, iv., p. 23, relates the case of a female, aged 22, who had strumous disease of the shoulder-joint, left facial paralysis, and left ptosis, but answered rationally. Evacuations were passed involuntarily. Up to the day of her death she recognised those around her when roused. Gradually sank and died without any convulsion or parslysis of limbs having ensued. Brain not congested. Right optic thalamus occupied by a large mass of scrofulous deposit, which made it seem twice as large as normal; it pushed downwards, and displaced considerably the corpora albicantia and optic commissure. Right crus cerebri entirely involved in the malignant mass. There were pricking sensations in the upper extremities; no hemiplegia. At one time she had intense headaches and loss of consciousness.

14. G. P., aged 45, carpenter. Left hemiplegia commenced fourteen days before admission; got worse. There was right ptosis, left facial and left tongue paralysis, vision somewhat impaired; a history of constitutional syphilis. After admission he had much delirium at night; his speech was indistinct, but he remembered words well. The delirium and hemiplegia continued, and he died after seven weeks' illness. Inner surface of skull roughened; hemispheres normal; fornix diffluent; left optic thalamus normal, but right much enlarged and softened, extending quite across to left side, narrowing and displacing the third ventricle. In softened substance no glomeruli nor pus cells, only a *débris* of tissue and fine fibres. In substance of right crus a hard grey tumour of large hazel-nut size, consisting of imperfect fibres and granular matter. Both corpora striata normal. Right third nerve appeared discoloured and wasted.

In both these latter cases there was a tumour involving the right optic thalamus and right crus cerebri, and apparently no other disease except softening of the fornix. The tumour pressed downwards chiefly in Case 13, to the left in Case 14. The symptoms were remarkably different. Hemiplegia existed in 14, none in 13. Right ptosis in 14, left in 13. Tolerably clear intellect in 13, much nocturnal delirium in 14. Attacks of severe headache and unconsciousness in 13, none in 14. In the latter impairment of vision and of speech, which seem to have been absent in the former. In both there was left facial paralysis. The sphincters were paralysed in the first alone. The right ptosis may be explained by the state of the third nerve in Case 14, but the left ptosis, the facial paralysis, the impaired speech, the nocturnal delirium, the headaches and loss of consciousness, the palsy of sphincters, cannot be accounted for by local change. What was the effect produced by the softening of the fornix it is difficult to say, but we have no knowledge that would enable us to refer the phenomena occurring in Case 14 to this lesion. According to Lockhart Clarke, the facial nerve-roots do not decussate in their course to their nuclei, so that in right-sided lesion one would expect right facial paralysis. The delirium and the intense headaches clearly imply irritation, and the same cause must be assigned for the paralysis, I believe. These cases strongly illustrate how different may be the phenomena which occur with almost precisely similar lesions.

I do not assert that the evidence afforded by these cases is at all conclusive. I am aware that a more searching scrutiny than has been yet made is requisite to prove the point that the symptoms are not dependent on material lesion; and yet I must think that the facts strongly support the negative view. In admitting the necessity for careful scrutiny into the textural condition of secondarily paralysed centres, I would, however, observe that too much stress must not be laid on small amounts of lesion. If a corpus striatum can function fairly well with a tumour or a small cavity in its substance, or a hemisphere with an abscess in it, we must not too readily conclude that microscopic lesions, unless very marked and extensive, are really the cause of morbid phenomena. Looking back at all the evidence that has been adduced, I can hardly doubt that the proposition will be found to hold true—viz., that a morbid state of a given centre may so affect other centres with which it is commissurally connected as to disorder or arrest their function. The latter, as well as the former, may, I conceive, be properly included among the results of irritation; for where derangement exists it is certainly not unreasonable to expect that it may in certain cases amonnt to such a pitch as to cause cessation of action. Thus a moderately strong electrical discharge merely irritates the nerves and muscles subjected to it, but a very strong one paralyses. So with alcohol, digitalis, and other agents—in excessive doses they paralyse. But this term "irritation" is objected to as vague, and as affording no satisfactory explanation of the phenomena. I admit the charge, in so far as that we comprehend very imperfectly how the effect is produced; but that a morbid effect in some way is produced under the supposed conditions cannot be denied. Is it not a fact that a tapeworm in the bowels may cause headache, vertigo, or even epilepsy? Does not peritoneal irritation enfeeble and arrest the heart? May not sciatica paralyse the bladder, or facial neuralgia the muscles of the eye? These, and many like instances, show positively that unhealthy excitation of afferent nerves, or of tissues in which they ramify, can derange secondarily the working of the centres to which the morbid impressions are conveyed. The amount of secondary effect produced will vary *inversely* as the stability of nutrition of the elements of the recipient centre, and *directly* as the intensity of the impressions. A weak centre will be deranged by slight irritation, which takes no effect on a strong. This is a very important point to note, as it shows us that we must not expect the results of apparently similar irritations to be always the same. This is notorious as regards outside irritations; yet I may mention that I have seen the face very blanched and the heart's action greatly enfeebled in two females during the operation of vaccination, and that a friend was most gravely alarmed about one of his patients (a male, aged 22) after the same procedure. The syncope was so deep and persistent that he was not restored for an hour and a half. I saw this young man afterwards in consultation, and found his heart organically sound, but irritable and weak from over-rowing and over-smoking. In none of these instances was there any fear of the operation; but, nevertheless, the slight irritation produced more or less of cardiac paralysis. Such a result, though rare, seems to me very instructive; it teaches us that *morbid* stimulation may be essentially depressing—that, in fact, irritation may paralyse.

Now, the circumstance that the irritation originates, in such cases as we have been examining above, within the cranium can make no material difference—we know that epilepsy may be equally produced from dental or intestinal irritation, or from a cranial endostosis. Why should we hesitate to admit that a focus of morbid action located in a far more highly organised and susceptible part should be capable of acting with injurious effects on those with which it is in close relation? Would it not, rather, be strange if no such effect occurred? And when we see a sudden lesion take place, as in hæmorrhage, and find that other centres besides the one directly injured are disabled at the same time, it seems very difficult not to believe that some such morbid influence has operated on them as we endeavour to describe by the terms "shock" or "irritation"; the first implying probably only an acute degree of the second. As a speculation it may be suggested that what really happens in these cases is, that the state of the commissnral nerve-fibres at the irritated ends is propagated to the cells of the healthy centre along the axis cylinders, and induces a like state in those cells to that which exists at the focus of disease—a state incompatible with healthy function. But this is a mere hypothesis, quite distinct from the *fact* which it seeks to explain. These views are essentially the same as those I have put forth in "Functional Nervous Disorders" (second edition, p. 16) and elsewhere. Some may prefer Brown-Séquard's explanation of the secondary paralyses—viz., that they depend upon anæmiating spasm of the vessels produced by the morbid excitement—and though I do not adopt this opinion, it is very possible it may be correct. I have already referred to the writings of this eminent investigator on this topic, which seem to me not to have received the attention they deserve. Very noteworthy are also those of Andral, whose testimony is the more reliable as he makes no attempt to explain, but simply notices the facts. He more than once remarks to this effect: that beyond the

morbid states appreciable on the dead body there are others, quite as important, which escape the researches of the anatomist, and which add their all-powerful influence to the former in permitting or preventing the manifestations of functional disturbance. On page 164 he says, "the hemisphere opposite to that in which the softening is, may be affected in a manner altogether sympathetic, and it is thus we may conceive general disturbances of motion and sensation connected with a softening which occupies but a very circumscribed spot of one of the hemispheres."

It may now be worth while to see what bearing these views may have on the treatment of grave disorders of the brain; and considering our extreme poverty in this department, mere suggestions may be worth a hearing. If the symptoms evoked by intracranial mischief may be to an extent which it is difficult to determine beforehand due to irritation and functional disorder, it is clearly advisable to treat especially the latter, which is more remediable, and to let alone that which is beyond our reach. Suppose, the most common case, that blood has been extravasated into the corpus striatum and adjacent hemispheres. The bleeding is probably all over in ten minutes, before we get to the patient. But he is hemiplegic and very likely unconscious, with palsy of the tongue and face. What can we do to relieve these disorders? In so far as they depend on direct damage of nervous centres, we can do no more than put the system in a favourable condition to repair the injury. We can place the patient, as Mr. Bowles advises, on his side, and draw the tongue forward, so as to facilitate the breathing and obviate venous congestion of the head. Astringents suggest themselves as likely to promote the firm closure of torn vessels, the shrinking of the clot, and the consolidation of the lacerated tissue; and further, supposing the hæmorrhage to have occurred near the surface of the ventricles, may stave off the imminent risk of a rupture into their cavity, which is necessarily fatal. I think if I were attacked I should wish to be injected subcutaneously with ergotin, which has proved useful in dangerous hæmoptysis, and to take krameria tincture. I should like to have cool air blowing about my raised head, and probably some ice applied occasionally. But unless it was clear that my head was actively hyperæmic I would rather be spared the ordinary dose of croton oil, which can hardly fail to depress nerve power, and very seldom does any distinct good. Then as to the unconsciousness, the impending coma, and secondary paralysis which are dependent on shock, I would have restoratives administered; strong coffee, with or without a little brandy or wine, might do something to rally the nerve-centres from the depression caused by the internal concussion, or at least to prevent its increase. Trousseau's experience led him to eschew all debilitating measures; he fed his apoplectic patients and gave them wine, and found that under this *régime* their symptoms yielded far more readily than when he acted differently. If convulsions ensue in any case from hæmorrhage having taken place into the membranes, or if violent delirum occur, the subcutaneous injection of bromide of potassium is likely to be of much service, although it is apt to cause a good deal of local inflammation. To more chronic cases the same views would apply, the principle of treatment in all being to sustain the power of the secondarily affected centres, and to protect them against the depressing inhibitory influence. This might justify the cautious use of opium or other so-called sedatives.

The suggestions now offered refer of course to cases where there is no marked evidence of active or passive cerebral hyperæmia, where the respiration is not oppressed or slow, the pulse not firm or retarded, and the blood-mass does not seem to exert undue intravascular pressure. When the reverse of this prevails we cannot do better than follow Sir Thomas Watson's counsels as to the use of bloodletting and purgation, which his most matured judgment by no means declines in appropriate cases. These, however, I strongly suspect are not the most frequent.

I ought to have mentioned that Dr. J. W. Ogle accepts the views of Brown-Séquard as to the production of the paralysis in certain cases by irritation conveyed from the original focus to other centres. He prefers the term "induced." (*Vide* Medico-Chirurgical *Transactions*, 1859.)

A LARGE and influentially attended preliminary meeting of the inhabitants of Clapham and Brixton took place last week to advocate the establishment of swimming and other baths, and to elicit the opinion of the public on this important question. The result of the meeting was highly satisfactory.

SHARK-BITE.

By J. FAYRER, M.D., C.S.I.
Hon. Physician to the Queen.

DENO, a muscular, healthy Oorya coolie, aged 30, was admitted into the Medical College Hospital on March 26, 1871, two days after having been severely bitten by a shark whilst bathing in the Mutlah. He had been rescued by his companions, but not before the savage creature had seized him three different times, inflicting most serious injury, tearing away a large portion of the left thigh and causing great effusion of blood. There was an enormous wound extending from about the middle of the left gluteal region to within three or four inches of the ham. It measured twenty inches in length, seven in breadth at the lower end, twelve inches in the gluteal region, and nine inches at its upper extremity. The depth was great, extending nearly to the bone, which could be felt only covered by a few muscular fibres. The flexors and great part of the glutæus maximus were torn away; the sciatic nerve divided, and several inches of it removed. The anterior aspect of the limb had escaped, and the femoral vessels and nerve were uninjured. He was depressed and feeble from shock, loss of blood, and pain; his pulse 112—better than might have been expected. He was restless and feverish. He appeared to have been a healthy and vigorous man before the accident. Notwithstanding the injury, he was able to move the limb slightly; he could approximate the knees and flex the limb, showing that some portions of the flexors were undivided. Sensibility seemed to be preserved in the integument of the leg and foot. In addition to the wound above described there were others—one on the right gluteal region six inches in length by four in breadth, the integument to this extent having been torn away and the subjacent tissues deeply lacerated; another on the right elbow, which had taken away a narrow strip of integument about two inches in length. There were also several deep punctures in the back, corresponding to the size of the shark's triangular teeth. These wounds were all superficially sloughing when he was admitted.

In consultation with my colleagues it was determined to attempt to preserve the limb. The loss of so much muscle, the division of the sciatic nerve, and the great extent of the wound were suggestive of immediate amputation at the hip-joint; but as the joint itself was uninjured, and his condition as favourable as could be expected under such circumstances—considering the shock and loss of blood (which is said by his companions to have been very great)—it was determined to attempt to save him without the amputation at the hip, itself a most dangerous alternative. His bowels being confined, a dose of oil was ordered, and acetate of ammonia with nitric and chloric ether prescribed with reference to his feverish condition. Opium was freely administered, to allay pain and give rest. The limb was supported on a splint, and the wound dressed with poultices and carbolic oil dressing. Subsequently decoct. cinchonæ with quinine were given, and chloric ether. He was slightly delirious on April 2. The pulse increased to 120. Temperature varied from 97·5° in the morning to 101° to 103° in the evening. But the wounds had cleaned and presented a healthy granulating surface on April 3, covered with well-formed pus. He was very restless at night, and could not sleep, complaining of burning in the wounds. Hydrate of chloral was given, but with little benefit. An abscess formed on the left shoulder about this time (April 9) which soon degenerated into a sloughing sore from which a slough of subcutaneous cellular tissue separated. The wrist and forearm became œdematous. From the 10th he again began to improve, and slept better. The discharge moderate; the wound looking pale and pink, with imperfect granulations, but evidently contracting. His pulse fell from 120 to 110, and the temperature from 103° to 101° to 100°. A slight burrowing of matter with sloughing of subcutaneous cellular tissue occurred; this being laid open on the 18th, the wound soon began to granulate, and he continued to improve. On the 25th the surface of the wound had contracted three inches in length and one inch in breadth on the thigh, and two inches in the loins. On May 3 he had slight diarrhœa, which was checked by astringents. He now began to look more pallid and puffy about the face and limbs, but the urine contained neither albumen nor sugar. The wounds, though inactive, continued to contract. Potassio-tartrate of iron and infusion of calumba were prescribed, with two grains of opium every fourth hour to allay irritability and promote capillary action. The puffiness diminished for a few days, but it again returned, and the pulse became weaker and more rapid, and he again began to complain of a burning sensation in the

wound; sleep was imperfect, and fever and cough supervened on May 16, which continuing for fifty-six hours, left him very weak. He never rallied from this condition, and he gradually sank on May 21.

On post-mortem examination the left lung was found to be congested throughout, the lower lobe being in a state of grey hepatisation, pus freely exuding from its cut surface. The right pleural cavity contained a quantity of sero-purulent fluid. The pericardium contained about four ounces of serum, and there was a small fibrinous clot in the right ventricle. The liver and kidneys were fatty, and the latter congested. The whole muscular system was pale and flabby. The wound was cicatrising throughout; that on the back had healed. On dissection it was found that about seven inches of the great sciatic nerve had been torn away. The muscles on the back of the thigh were also torn away. The semi-tendinosus and membranosus, the long head of the biceps, and the gracilis had suffered; their divided ends were found agglutinated together with the lower end of the sciatic about three or four inches above the ham. The surface of the sore was formed by the short head of the biceps, vastus externus, and outer surface of the trochanter major; the edge of the sartorius with the adductors on the inner side. In the gluteal region it was formed by the surface of the external rotator muscles of the thigh, the pectinæus and quadratus femoris below, the deep fibre of the glutæus maximus above. The gracilis was torn across at about an inch from its origin, and the upper end of the divided great sciatic nerve was on a level with the edge of the lower margin of the quadratus femoris, upon which it lay thickened and adherent. The end of the nerve was bulbous, and tied down by the cicatricial tissue that matted all together. The general condition of the patient and the reparative action in the wound all at one time seemed to promise a favourable termination of the case, but pyæmic mischief, resulting in suppurative pneumonia of the left lung, supervening in the seventh week proved rapidly fatal.

Calcutta.

EXPERIMENTS MADE ON ANIMALS, TO ASCERTAIN THE FUNCTIONS OF THE LARYNGEAL NERVES.

By Dr. EMMERICK NAVRATIL,
Member of the Pesth University.

The change in the opinions of the Faculty concerning paralysis of the vocal cords has been so complete since the practical application of the laryngeal mirror, that to refer to former perfectly unfounded opinions would be quite superfluous; nor is it necessary to discuss the importance of laryngoscopy.

In a work published by me in the Hungarian language, in the year 1866, entitled "Diseases of the Throat," and in a series of articles on paralysis of the vocal cords, published in 1869 in the *Berlin Weekly Clinical Journal*, I more fully discussed the subject of paralysis in so far as laryngoscopy could throw any light on it. I laid particular stress on the fact that a total paralysis of one side of the larynx, provided it were not of a decidedly local rheumatic origin, might be traced to an abnormal state of the vagus or of the recurrent nerve (compression through an aneurism of the arch of the aorta, or some other morbid growth). As a further guidance in the art of laryngoscopy, I thought it expedient to make experiments on animals, the results of which I shall briefly state. Nor can I here refrain from expressing my sense of gratitude to Professor Balogh, in whose institution the experiments were made, for his collegial assistance, and to Mr. Simbriger, Medical student, for his willing and skilful aid.

We made nine experiments: eight on dogs, and one on a cat.

Experiment 1.—On a middle-sized dog. A drachm of tincture of opium was injected into the jugular vein; this produced profound torpor. Then we divided the superior laryngeal nerve running off diagonally at the upper third of the thyroid cartilage, and examined the larynx. The examination of the larynx was effected as follows:—The animal was stretched out on the dissecting-table, its head being towards the window. By means of two cords fixed to the jaw-bones, one assistant held the mouth widely open, and a second assistant pulled the tongue as far forward as possible, whilst I raised the epiglottis with a pair of long pincettes, and drew it forward. By this means we obtained a clear and distinct view of the larynx, especially when favoured by the light of a clear sky. In dull weather we placed a lamp behind the head of the dog, and directed the rays into the mouth. After dividing the superior laryngeal nerve, no apparent change took place, either in the vocal cord or the arytenoid cartilage of the side operated on—the former performed its functions as usual, the glottis closing and opening normally; the dilators, contractors, and expansors, too, continued their functions. The division of the laryngeus superior on the other side was attended with the same negative result. Then we divided the N. laryngeus inferior seu recurrens vagi at the lower third of the neck on the left side; thereupon total inaction of the left vocal cord and arytenoid cartilage, as well as of the left half of the epiglottis, ensued. Then we divided the vagus of the right side in its cervical situation. After this operation, the glottis assumed the position it does after death—*i.e.*, an intermediate position between contraction and dilatation, presenting the shape of a triangle, with its point foremost and its base hindmost. Inspiration inaudible, expiration loud and convulsive.

Experiment 2.—On a middle-sized dog. A drachm of tincture of opium injected into the saphena vein produced torpor. First we divided the superior laryngeal nerve of the left side—no change in the larynx. Then we extracted the N. accessorius Willisii of the right side in the jugular foramen, and in this case also the muscles of the larynx performed their functions as before, normally. We could not make any further experiments on this animal, as it bled to death in consequence of the injuries the larger bloodvessels of the neck had sustained in the operation on the accessorius Willisii.

Experiment 3.—On a large dog. In this experiment, as well as in those following, the animals were operated on under the influence of chloroform. The division of the laryngeus superior had a negative result. The N. accessorius Willisii on the right side was divided as follows:—The skin and the soft parts of the back were stripped off, and the vertebral column laid bare. Then a long, thin, sickle-shaped knife was thrust in, between the atlas and epistropheus, and inserted diagonally into the right side of the spinal marrow, so as to make an incision of about a quarter of its transverse diameter. Then we examined the larynx, which continued to perform its functions normally as well during phonation as expiration. The dilatation and contraction of the glottis, as well as the tension of the vocal cord, took place regularly. Hence the result was negative: not a symptom of paralysis of the larynx. However, the extremities and trunk of the side operated upon were completely paralysed. To convince ourselves that the accessorius Willisii was actually divided, we opened the spinal canal with a pair of strong bone-scissors, and laid it bare. The spinal marrow of the side in question proved to have been incised to a quarter of its transverse diameter, and the nerve in this situation was divided.

Experiment 4.—On a large dog. Division of the laryngeus superior with negative result. In consequence of the division of the recurrens of the right side, total paralysis of that half of the larynx took place. During the operation on the recurrens on this plethoric animal (a greyhound), several large jugular veins were injured, and our unavailing attempts to staunch the blood prevented further experiments.

Experiment 5.—On a large cat. The result of the division of the laryngeus superior was negative. We then divided the recurrens of the left side, which produced inaction of the left half of the larynx; this, however, did not prevent the glottis closing, but the closure was effected in such a way that the right vocal cord and the corresponding arytenoid cartilage crossed the median line and rushed to the paralysed side, without producing any visibly oblique position of the glottis. The results of the above-mentioned experiments on dividing the vagi or the recurrens were the same. During the torpor the N. accessorius Willisii of the right side in that part of the throat connected with the spinal canal was divided in the manner described in the third experiment. It was proved by laryngoscopic examination that the right side of the larynx also was paralysed, and the glottis assumed the position it does after death, similar to that after dividing both vagi or recurrens. The trunk and extremities of the right side were likewise paralysed. The torpor, which during the whole time of this operation had continued unmitigated, now grew so profound that the animal gave no more signs of life, and lay there quite stiff. After several attempts at resuscitation, however, we succeeded in rallying the animal, and the laryngoscope again showed the normal action of the cord and arytenoid cartilage. Hence, it is evident that the paralysis of the right side, observed at the moment, was not in consequence of the division of the accessorius Willisii, but merely a consequence of the general torpor.

Experiment 6.—On a middle-sized dog. Division of the

laryngeus superior of the right side, with negative results. Division of the right recurrens, with a positive result—*i.e.*, paralysis of the right cord and arytenoid cartilage, and of the right half of the epiglottis. Division of the accessorius Willisii in the spinal canal on the left side, with a negative result on the larynx. The spinal marrow of the part pierced was taken out, which showed that the accessorius Willisii had been completely divided.

The above-named experiments were made with a view to ascertain the functions of the laryngeal nerves; those following will show the duration of life after the division of the vagi and the recurrens, as also the incidents consequent on those operations.

Experiment 7.—On a middle-sized dog. Division of both vagi. Pulsations of heart before division, 120 to 140; inspirations, 18 to 20 per minute. After division of one vagus, hoarseness; after that of the other, total aphonia—the dog was no longer able to bark. The speculum showed the posterior portion of the vocal cords to be in a fixed position five millimetres asunder. Four or five minutes after the operation the animal began to crouch and shiver as if from cold. Soon it grew restless, moving from place to place in a rotary way, till at length it settled down. It hardly heeded calls. Its eyes were dull and partially closed. Occasionally it would raise its drooping head, rise from its sitting posture, and seek another place. After the lapse of five or ten minutes saliva began to drop from the mouth, terminating soon in profuse salivation, accompanied by frequent micturitions and evacuations, retching and vomiting. Pulsations of the heart increased, being 160 to 180 per minute, but were more feeble; inspirations less frequent, 12 per minute. After the lapse of an hour and a half the above-named symptoms assumed a new form. On respiration the animal used efforts to widen the thorax. With regard to breathing, expiration only was distinctly perceptible. The intervals between inspiration and expiration were from four to six seconds, respirations decreased to eight; pulse faint, 180 per minute, only audible during respiratory sinking of the walls of chest, imperceptible on inspiratory expansion. After the lapse of two or three hours' salivation, evacuations continued, inspiration was wheezing and irregular, and accomplished with convulsive efforts, lasting eight seconds; then there was noiseless sudden expiration, the expirations being four per minute. About eighteen or twenty hours after the operation, respiration hardly perceptible, pulsations of the heart rapid but feeble, salivation in a high degree, temperature considerably decreased, general enervation; death. Dissection: Œdema of the lungs in a high degree, incipient pneumonia of one lung; heart dilated, much congealed blood in its cavities; brain and medulla oblongata containing a middling quantity of blood.

Experiment 8.—On a large dog. Division of one vagus nerve and one recurrens. The right vagus having been divided previously, hoarseness in this case, too, was the immediate consequence; after the division of the left recurrens, aphonia supervened, the animal being unable to bark. The symptoms were the same as the above-named. The dog lived for two days and a half. Enervation and collapse in somewhat higher degree than after the former experiment. Dissection: Both lungs very sanguineous, but especially the right, which was also œdematous; brain, medulla oblongata, and heart in the same state as after the seventh experiment.

Experiment 9.—On a middle-sized dog. Division of both recurrents. Hoarseness and aphonia as above. The animal barked lond at the least noise at first, but now became perfectly silent. Frequent evacuations and micturition, for a short time; restlessness and salivation of a little longer duration, but also terminating within four hours. Breathing hard, yet not with such efforts as on the division of the vagi; expiration also more distinct, yet not so suppressed as in the previous cases. The intervals between expiration and inspiration a little longer, yet not so long as after the division of the vagus. The operation was performed on March 10, and the animal is still living (May 7). Although a little debilitated, it eats and drinks well, whilst the former animals refused all food. Paralysis of the vocal cords remains to this day in the same state as after the operation, and does not in any respect differ from that produced by a division of the vagi. Respiration is abdominal, and rather prolonged. The dog is incapable of barking.

Based on the experiments above stated, the following conclusions may be drawn:—

1. The N. laryngeus superior has no influence whatever on the motary sphere of the larynx.

2. The N. laryngeus inferior seu recurrens vagi is that nerve which supplies the muscles of the larynx; the expansors, contractors, and dilators of the vocal cords are under its influence. Hence any interruption of the functionary powers of this nerve causes paralysis of the corresponding half of the larynx. If both recurrens are interrupted in their functions, all the muscles of the vocal cords become inert, and the vocal cords assume the position seen after death.

3. The N. accessorius Willisii has no influence whatever on the muscles of the larynx.

4. The division of the vagi is attended with fatal consequences; but an animal may live for some time after the division of the recurrens.

In conclusion, we may further add that our object in dividing the accessorius Willisii having been to obtain a distinct picture, it was necessary to divide that nerve in the spinal cord before its communication in the jugular foramen with the motor fibres of the vagus.

From these experiments we may conclude that the assertions of Claude Bernard, according to whom the accessorius Willisii enervates the contractors of the vocal cord, are erroneous. The circumstance that Claude Bernard divided the accessorius Willisii in the jugular foramen, might lead one to conclude that that nerve inosculated with the motor fibres of the vagus nerve at that point, and that the observed paralysis of the glottis contractors was rather to be ascribed to this circumstance; whilst in our experiments Willis's nerve was divided in the spinal canal, consequently before any commixture took place.

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

WEST LONDON HOSPITAL.

DISEASE OF THE WRIST-JOINT—AMPUTATION—RECOVERY.

(Under the care of Mr. TEEVAN.)

The following account is extracted from Mr. Lee's notes of the case:—C. A., aged 45, carpenter, was admitted into the Hospital on March 9, 1871. History: Whilst the patient was lifting a heavy weight last September he twisted the right wrist-joint, and experienced much pain at the time. The next day the joint was red, swollen, and painful, and could not be used. In about ten days' time the inflammation began to abate, but the joint remained abnormally large and useless for work. Last December the patient had a sharp attack of gout, which involved the joint. From this date the inflammation increased, and in the month of January an abscess formed on its palmar surface, which was succeeded by another close to the end of the ulna. Father suffered from gout and rheumatism, and his sister died of phthisis.

State on Admission.—Patient is a fair man, with florid cheeks; body well nourished. Face indicative of suffering; hand carried in a sling. The entire wrist-joint is greatly swollen and indurated, and of a dull purplish hue. There are two fistulous openings covered with fungous granulations. Grating can easily be felt between the carpal bones, and any pressure elicits pain. A probe passed into the upper opening extends to three inches above the joint, and if it be introduced into the other it goes right across the dorsum of the wrist-joint. Pus wells out freely from both apertures. The patient was put on a generous diet, the sinuses laid open and dressed with carbolic acid. The state of the joint, however, did not improve, and as the patient's health began to decline through want of rest and pain, Mr. Teevan amputated the hand immediately above the joint on April 20, making a long flap from the dorsum, but none from the palmar surface, as the state of integuments did not permit it; the lower ends of the radius and ulna were sliced off, as their articular surfaces were in several places destroyed. The wound was a very long time healing, and it was nearly six months before cicatrisation was complete, when an artificial limb was provided for the patient.

May 11, 1872.—To-day the man came to the Hospital, and said he had been in very good health and able to follow his occupation till a few days ago, when a small abscess formed on the stump, and after it broke he felt a pricking sensation in it, and detected the point of a piece of wire. Mr. Teevan extracted the wire with the forceps; it was one inch and a half long, and it was evident that it was a suture which had become included in the stump in the process of cicatrisation.

EXTENSIVE INJURY TO HAND AND FOREARM—AMPUTATION—RECOVERY.

(Under the care of Mr. TEEVAN.)

Mr. Read's notes of the case have supplied the following facts:—T. B., a muscular, healthy policeman, aged 26, was admitted into the Hospital at 9 p.m., August 31, 1867, having met with an accident an hour previously, whilst working at a threshing machine at Hampton, by getting his right arm drawn into the machinery. On admission, he was very blanched and suffering from severe shock. The limb was extensively damaged, as all the integuments were stripped off the dorsum nearly up to the elbow; the extensor tendons were exposed and torn away from their attachments; the anterior surface of the limb was swollen and of purplish hue from the extravasated blood. The radius and ulna were both fractured, as were also all the metacarpal bones except the first and fifth. When the patient was seen by Mr. Teevan, at 10.30 p.m., he had rallied considerably from the shock, and, accordingly, amputation was performed at the junction of the upper and middle thirds, a good long flap being made from the anterior surface of the limb, as the state of the integuments on the dorsum did not permit of their being utilised.

The patient made a rapid recovery, and by October 1 the wound was completely healed. A few days later he left the Hospital. The man had an artificial limb made for the stump, and he has ever since been employed as attendant at one of the cabstands.

HULL INFIRMARY.

CHRONIC LEAD POISONING—AMAUROSIS.

Mary Ann D., aged 21, was admitted into the Infirmary on April 4, 1872, under the care of Dr. Lunn. She sought admission on account of intense continuous pain in the brow, over the eyes. The history she gives is as follows:—She went to work at the lead mills for the first time five years ago, and she worked there irregularly for four years; never had lead colic. Twelve months ago had severe frontal headache for a fortnight, then had pain in the eyes, and a few days after noticed her sight failing. She says she had no photophobia; objects appeared smaller. When getting her tea she misjudged the distance from her of her cup, her hand passing beyond; the poker before the fire appeared as two. At the end of two months, to relieve her headache, had tied a handkerchief round her head; was asleep half an hour, and on waking was blind, and has since remained so. The ophthalmoscope showed simple white atrophy of right optic nerve; the vessels small. In the left eye the disc was woolly, and the vessels also small. Both irides were dilated and fixed. The headache was relieved by blisters behind ears, and by iodide of potassium. She was discharged on May 18.

Mary Ann W., aged 17, was admitted under the care of Dr. Elliott, February 7, 1872, as an out-patient. When first seen she was very anæmic, the lymphatic glands on each side of neck swollen, and she had a tremor of right hand and head. She was totally blind; both irides extremely dilated and fixed; the sclerotic coat white and glistening. She says she worked off and on at the lead mills for a year preceding the beginning of October last; had colic twice; once laid up four months with it. She worked in the mill up to the time of her sickness. In October she was taken suddenly giddy in the street; she did not vomit then, but did so shortly after her return home. At the end of five or six days, during which time she was light-headed and had illusions and pyrosis, though but little pain in head or eyes, she went to sleep for five hours in the daytime, and on waking was totally blind. During the fortnight following she lost the use of her limbs, and at the end of that time needed to be fed and carried about like a child. The sense of feeling was also in a measure lost. She then began to improve, and, although her sight did not in the least return, she lost the paralysis, and the sense of feeling returned in great part. The sensibility of the right hand is still low. For the first few weeks suffered great pains in limbs and joints. The ophthalmoscope showed simple white atrophy of both optic nerves, with diminution of size of vessels. She has gradually gained strength, but there is no return of sight. She was treated with iodide of potassium and citrate of iron and quinine.

Remarks.—The above cases are two of the four that have been under observation at the Hull Infirmary during the last three years. In all the cases loss of vision was complete; and in all cases treatment was useless, I need hardly say. Lead amaurosis, if we are to believe the word of a workman whom Dr. Elliott interrogated, is not of such very infrequent occurrence here; he (the workman, who had been many years in the mills) had known several instances of loss of sight in lead workers. To what does Mackenzie refer when he says (edition of 1840)—"The purgative plan of curing lead colic is generally successful in removing the amaurosis which sometimes attends that complaint"?

WOLVERHAMPTON AND SOUTH STAFFORDSHIRE GENERAL HOSPITAL.

OPERATIONS ON THURSDAY, APRIL 18.

Enlarged Submaxillary Lymphatic Glands.

Mr. Vincent Jackson stated that the patient, a young woman, had suffered for a long period with enlarged and indolent lymphatic glands beneath the left side of the lower jaw. They had resisted various kinds of treatment, and a quicker method of removing the eyesore was requested. Under chloroform an incision was made directly over them from symphysis to angle, and after they were fully exposed one by one they were disembedded. The edges of the wound were united by interrupted metallic sutures, and the patient removed.

Excision of the Left Elbow-joint.

Mr. Vincent Jackson narrated the history of this case. The man, a puddler by occupation, was admitted into the Hospital with a completely disorganised left elbow-joint about a fortnight ago. He stated that about twelve months back the joint received a severe blow with a large piece of iron; swelling and pain soon set in, but, in spite of both, he continued his work until he was obliged, from the excess of the symptoms, "to knock off." Medical assistance was never obtained, an old woman bran-poulticing the part from time to time. Soon an abscess formed on the inner side, and burst and discharged itself, leaving a sinus which communicated with the articulation. The naked-eye appearance of the part was typical of irremediable disease, and, the physical examination being confirmatory, Mr. Jackson, with the consent of the patient, determined to remove the affected portions. It is worthy of note that twelve years back, in this Hospital, his right foot was amputated by Syme's method at the ankle-joint, on account of tarsal disease. The stump is a very good and serviceable one. The excision was performed by a central incision along the back of the joint, the soft parts being dissected off sideways, so as to allow of a liberal piece of the humerus, ulnar, and radius being sawn off. Afterwards some degenerated portions of synovial membrane were clipped away with scissors. The wound was brought together with interrupted metallic suture, and, in accordance with the practice and experience of this Hospital, the limb was placed upon a rectangular splint, until, in the course of a week or ten days, the acute symptoms involved by the operation having passed away, it is removed, and passive motion prudently employed.

Lateral Lithotomy.

A man, 46 years of age, was next placed upon the table and chloroformed, and Mr. Vincent Jackson then removed by lateral lithotomy a uric acid calculus, weighing nearly three ounces.

Stricture of the Urethra treated by Holt's Method.

A soldier was admitted into the Hospital a few days ago on account of the trouble which a twelve years' old stricture of the urethra of gonorrhœal origin gave him. It was found to be very tight, and with difficulty, twenty-four hours previously, a No. 1 gum-elastic catheter had been passed and tied in. On the table this was removed, and without chloroform Holt's dilator was pioneered into the bladder, and the stricture split with No. 12 tube. The dilator being withdrawn, the urine was drawn off by a No. 12 silver catheter, the instrument being taken out directly afterwards. Mr. Jackson stated that he had now treated 150 cases of urethral stricture (traumatic and gonorrhœal) by Holt's method, and no untoward symptom had ever caused him to regret doing so.

St. Thomas's Hospital.—The distribution of prizes to the students, by his Grace the Archbishop of Canterbury, will take place on Thursday, June 27, 1872, at three o'clock, in the Governors' Hall (entrance from Westminster-bridge). Seats will be reserved for ladies.

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The Medical Times and Gazette *is published on Friday morning, Advertisements must therefore be sent to the Publishing Office not later than One o'clock on Thursday.*

Medical Times and Gazette.

SATURDAY, JUNE 15, 1872.

WOMEN MIDWIVES.

We published last week some resolutions unanimously carried at a meeting of the Medical Practitioners of Birmingham and the surrounding district, condemnatory of the proposed assumption by the Obstetrical Society of the function of granting certificates of competency to midwives. If it be admitted that it is desirable there should be female Practitioners of midwifery, we do not know that any public body would be better qualified to grant them certificates of competency upon proof than the Obstetrical Society. The question, therefore, discussed by our Birmingham *confrères*, from our point of view resolves itself into the larger one of whether it is for the interests of society that any considerable portion of midwifery practice should be in the hands of women, and whether, therefore, the Medical Profession should countenance and facilitate the acquirement by women of sufficient knowledge to practise the obstetric art. On these points we wish to offer one or two remarks.

It is a matter of notoriety that, of late years, among the numerous outcries that have deafened the well-to-do population of these islands, there has been a shrill, if not a loud, one in favour of female midwives. When traced to its originators, however, it has been found to have been raised by a few male fanatics, whose objection to male Practitioners is based on the fact that they credit all mankind with the same impurity which colours their own imaginings; and by a somewhat larger number of hopeless spinsters and sterile matrons, who because they are spared the burden of Eve are envious of Adam's punishment, and employ their time in prating about woman's work and woman's mission—by which they mean the neglect of that part of the business of mankind which in every nation and age has been assigned to the woman, and an interference with that part which nature, custom, or the progress and necessities of civilisation have apportioned to the man. Our modern prophetesses quite ignore the fact that the instinct of the human race has made a broad division in labour; that to the female part of mankind nature has assigned three very important duties, which certainly in England they do not fulfil in any tolerable fashion. The first is the duty of preparing food for the whole race; the second is that of clothing themselves and their children, if not the men also; the third is that of educating physically, mentally, and morally the young of the race. This is the true woman's work, which is utterly neglected by a large part of the sex, very badly performed by the great majority of the remainder, and only well fulfilled by the small minority that remain in so far as they profit by the assistance and imitate the skill of those males who, in sheer despair, have turned their attention to what ought to be the female part of human employment. We utterly deny that there is any appreciable call for female midwives on the part of the childbearing matrons of England and Wales. We never yet met with a woman who would not prefer being attended by a man if she could afford to pay one; and the reasons are obvious. In the first place, the instinct of the woman teaches her to rely upon the skill, courage, presence of mind, and strength of the male; in the second, she mistrusts the judgment of her sister in time of difficulty and danger; in the third, she knows that men are kinder and more considerate towards women than women are to each other. We do not believe that if all the married pregnant women in the kingdom were polled to-morrow, one in 500 would prefer being attended in her approaching parturition by a female practitioner. We allow, then, that there is an outcry for female midwives, but we deny *in toto* that it has been raised by that section of the sex which is most interested in the matter.

But there are other arguments used in favour of female practitioners in midwifery. The first scarcely deserves a reply from us. It is said that it is more consonant with the chastity and delicacy of women to be attended by persons of their own sex than by men. To this the history of the English gives the direct lie. The virtue and morality of English women has certainly not suffered from the transference of midwifery practice to Physicians and Surgeons. The morals of the present day will undoubtedly compare with those of the Stuart period. An argument that claims more consideration is founded on the undoubted fact, that two hundred years ago all, or very nearly all, the midwifery practice in Christendom was in the hands of women, and it is therefore alleged that men have intruded into the woman's province, and have pushed them from a field of labour which nature and custom had allotted to them. Yes, it is true that a century or two ago midwifery was in the hands of women. But what were the results? The mortality in childbed is now throughout England and Wales estimated by Dr. Farr as 1 in 189—that is, about one-third of what it was in the middle of the seventeenth century, when the practice was in the hands of midwives. It will, of course, be said that the obstetric art has improved, and the management of the parturient woman is better understood. But who have been the improvers of the art? Not the women who for centuries had the monopoly. Men invented version, the forceps, the vectis, and all the other mechanical aids, means, and appliances by which difficulties in labour may be overcome. There is not, we believe, an original book on midwifery in the English language by an English woman. The first book on midwifery published in this country (the well-known "Birth of Mankinde," otherwise named "The Woman's Booke") was set forth in English by "Thomas Raynald, Physitian," "that the simplest midwife which can reade may both vnderstand for her better instruction, and also other women that have neede of her helpe, the more commoditie." Since then men have invariably been the teachers, until finally they took the practice into their own hands with the result of saving countless thousands of women and children from death, and of raising midwifery to be a branch of scientific Medicine.

A more cogent argument, however, for female midwives is to be found in the pecuniary one—that the poor cannot afford to remunerate properly Medical men, that female assistance is cheaper, and that midwifery practice makes too great a

demand on the time of the scientific Practitioner. Now, we will not deny that in some impoverished districts it may be, on economical grounds, better to employ women, under the superintendence of Medical Practitioners, for the very poorest of the population; but we are certain that the state of things in this country is quite exceptional. The fact is that Medical practice will soon become a very dignified, scientific, exalted calling for men with large fortunes, but one entirely unsuitable for any who wish to earn their living and a maintenance for those dependent on them by their own exertions. Medical men have largely given up supplying their own medicines, and have thus thrown into the hands of the chemist not only a great amount of profitable dispensing, but a large share of absolute practice. It is now proposed that the Profession should relinquish to women the attendance on the midwifery of the masses —midwifery, for which fees average from half a guinea to one or two guineas. We have no hesitation in saying that such a policy, if it became general, would be most disastrous to the general Medical Practitioner. Fortunes in the Medical Profession are not built up as a rule by large fees, but by small ones. Fortunately, we do not believe the women of England would submit to the change; but we are certain that if they were so to do the Medical practice which has hitherto fallen to the general Practitioner would pass entirely into the hands of chemists and midwives, not to speak of charlatans.

We have left ourselves no space to enlarge upon the physical and mental attributes for a successful accoucheur, which are so apt to be wanting in women. This is a view of the subject which does not require to be enlarged on.

Our readers will see, from what has gone before, that our opinion is against the admission of women in any considerable numbers to obstetrical practice. Our reasons are—first, that long experience has proved that women do not make the best midwives; that female midwifery is likely to be attended with more accidents and a larger mortality than male; that the outcry which is now being raised in favour of female midwifery is a mere *vox et præterea nihil;* that there is no ethical objection to the present practice, as experience has amply proved; and that any transference on a large scale of midwifery from the General Practitioner to the female midwife, would do incalculable mischief to the Profession of Medicine and to those who are dependent upon it. At the same time, if it be urged on economic grounds that female midwives, in strict subordination to the Medical Practitioner, may be of use in certain localities, we cannot think that they could be tested in the rudiments of obstetric practice by any more suitable body than the Obstetrical Society—and the rather because that Society is likely to abstain from all pretensions to the examination and licensing of men.

THE DOCTOR IN THE WITNESS-BOX.

Lawyers say the worst of all witnesses is a Medical witness. This was formerly the case more strikingly than at the present time, but still the dictum to a great extent holds good. The reason is clear enough: the Medical witness was not only in the habit of using technical and overlearned words, but he added opinions to the facts which he adduced—opinions biassed by his own views of the case before him, often very puzzling, and sometimes quite incomprehensible to the bench and jury. The struggle between the witness and the advocate was often a severe one, and the witness was subjected to as strict a cross-examination as it was possible to give him. Happily there has been some improvement of late in this matter; but still sufficient remains to be done to bring matters into a satisfactory condition.

We have read with much satisfaction a chapter entitled "Medical Men in Court" in a work just issued on "Law and Lunacy."(a) The article has reference chiefly to Medical witnesses in cases relating to lunacy; but in its main features it is applicable to all cases in which Medical Practitioners are called upon to give evidence. At starting, the Medical Practitioner should recollect that he has no power to claim "privilege," as have the lawyers; whatever communication has been made to a Doctor, even in the strictest Professional confidence, is not protected from disclosure. This may seem a hardship, and to some extent it is; but on the whole it is probably better for all parties that the arrangement should be as it is. When the witnesses have been acting as special commissioners, as it were, to examine and report on an insane person, all the duty of the witness is to make his report clear and accurate—in other words, intelligible and truthful. The authors of "Law and Lunacy" do not object to the system pursued by some barristers, instructed by Medical Practitioners, of "baffling and confusing" Medical witnesses. Though this system has been strongly censured, they think that in questions involving insanity the utmost latitude should be given to the advocate. The answer of a Medical witness should be clear and direct—no "beating about the bush," or prefacing the fact sworn to by any unnecessary or doubtful sentence. "If the question is of such a nature as to elicit only half the truth, the Medical witness's duty is to answer it just as it had been put; and having done so, he may ask the judge's leave to explain in what way his answer, though true, may convey a false impression." The Medical witness ought never to argue with the counsel; he should, moreover, give his evidence without any bias or animus; and, above all, he should never take upon himself the functions of an advocate, "and he who does so injures the cause he would advance, and brings discredit upon himself and his Profession." This remark is particularly applicable to many cases in which Medical witnesses clearly go beyond their legitimate bounds, instances of which must be familiar to all. If a witness cannot answer a question, it is better for him to say so at once. "Thus, counsel will frequently ask Medical witnesses 'If they can define insanity?' The duty of the witness under such circumstances is to answer 'No' to the counsel, and to ask the permission of the judge to explain that he can describe insanity, but that its nature precludes the possibility of a satisfactory definition, although that does not prevent its invariable recognition." The witness, as a rule, has to undergo three examinations—"examination in chief," "cross-examination," "re-examination." He should adhere strictly to answering the questions put to him, and should avoid voluntary evidence—often a dangerous proceeding. Proving too much is often attended with great risk. When called upon to speak to facts—as, for instance, the facts he observed on visiting a lunatic in illness, or whilst in prison—he should be provided with notes of the dates before he enters the witness-box; to these he can refer to refresh his memory during his examination. "He may not, however, refresh his memory by extracts from a book, even though written by himself. If a Medical Practitioner is called to give his opinion on a matter of skill, and has made a report of the appearances or state of facts at the time, he will be allowed to read it—if his counsel require it—as part of his evidence." The practice in Scotland is somewhat different: the witness may read his report as a scientific document, on which he may be examined or cross-examined. In matters not of a scientific character he can only refer to the memoranda to refresh his memory. All attempts to raise a laugh or to crack a joke should be avoided as "unworthy of the character of a scientific witness." The witness should always speak clearly, and avoid the use of scientific words—such words as "dementia," "monomania," "puerperal insanity." The witness should describe in familiar terms the states here mentioned.

"It is scarcely necessary for a Medical witness to know, although it is important for a counsel to remember, that Medical books cannot be put in evidence, even though Medical witnesses state that they are works of authority; but at the same time Medical Practitioners may be asked their judgment

(a) "Handbook of Law and Lunacy." By Dr. J. T. Sabben and J. H. B. Browne. London: J. and A. Churchill.

and the grounds of it in relation to any Medical matter which may in some degree be founded on these books as part of their general knowledge."

Such is a general outline of the chapter on "Medical men in Court"; but the work has a wider significance and usefulness as an excellent manual for the Practitioner in all that relates to "Law and Lunacy."

THE WEEK.

TOPICS OF THE DAY.

THE arrangements for the partial Conjoint Board for England, which has received the sanction of the General Medical Council, are being pushed forward by the two Royal Colleges, and by the University of Cambridge. As we cannot but think that an imperfect combination of this kind—which, as far as present appearances go, will not be followed by any similar combination in Scotland, and until the law be altered cannot be rendered complete in England—must be productive of but little good, and may do infinite harm, both to the Profession and to the public, by introducing an inferior class of Practitioners, or at least by inducing English students to obtain their Surgical diplomas in Scotland rather than in England—we confess that we regard the action which the Colleges are taking as hasty rather than wise. By the present combination the one-portal system will not be obtained, and we cannot see that any real advantages will accrue. Supposing, indeed, that the Society of Apothecaries and the University of London can obtain such an alteration in the law as will enable them to take part in the scheme, and an arrangement with these bodies can be effected, the whole matter as regards England and Wales would assume a different complexion. But then the acquiescence and co-operation of Scotland and Ireland must be obtained before a satisfactory system can be inaugurated. It is true that the Scottish bodies adhere to their proposal of a "Conjoint Practical Examination," which differs from the English in every respect, and for passing which they hope to extract another fee of five guineas from the unfortunate student. We need not repeat that this is merely the addition of another and unnecessary examination to the long list. It adds to the evil instead of diminishing it. Patchwork legislation is proverbially bad, and we fear that these attempts to sew a new piece of cloth upon an old garment will only result in making the rent worse.

The complaint and remonstrance of "A Volunteer Surgeon," which we publish in our "Correspondence," have been called forth by so gratuitous a piece of insult on the part of the present "Liberal" Government that we do not think any comments of ours can strengthen the indignation which the bare facts have aroused. Volunteer Surgeons—specially educated Professional men, who, from patriotic feelings, at a large pecuniary expense to themselves, render their skilled services to their country—are to be compelled by the Government to attend in sickness, and find medicines for, the adjutant, the sergeant-major, and the instructors of their corps, with the families of these officers (in all an average of eighteen persons), for the munificent pay of 2d. per head per week, or £7 18s. per annum! To compel a volunteer is not a courteous act on the part of a paternal Government; but to insult an educated gentleman by offering him the dole of a crossing-sweeper is a height of effrontery which seems insurpassable, even by the combined talents of Messrs. Lowe and Cardwell.

There can be no doubt now, we believe, of the safety of Dr. Livingstone, although the telegrams respecting him have been enigmatical. The Governor of Bombay has informed by telegraph the Duke of Argyll that Livingstone has been to the northern end of Lake Tanganyika, and has found the rivers flowing into the lake. This is probably what Lieutenant Dawson meant when he telegraphed to Sir H. Rawlinson "Nile question appears settled." He adds—"Underground village next attracts Livingstone's attention." We may evidently expect some anthropological and ethnological discoveries.

We have received a copy of the *Manchester Courier* of June 11, which contains an account of a special general meeting of the trustees of the Manchester Royal Infirmary, wherein some important changes in the staff and management of the Infirmary and Medical School were debated. A resolution was passed postponing the election of the honorary Medical staff until a complete scheme for the organisation of the staff has been prepared. We are glad to notice that a check has been given by the vote of the meeting to the system of expensive contests and canvassing for the Infirmary appointments which seems hitherto to have been the rule. The unenviable predicaments into which the system of canvassing may lead the Medical aspirant are exemplified in the following speech of one of the governors:—

"Mr. H. J. Leppoc said the reason which had induced the board of management to request the trustees to suspend this rule for some time was a very proper one. They had no vacancies before them on either the Medical or Surgical staff, but unfortunately there was too much fear that such a vacancy might occur. The Board of Management had been aware that an active canvass had been going on in various quarters; a canvass, he was sorry to say, which had not been conducted in the manner they would like to see. He was sure the trustees would be sorry to hear that a lady had been canvassed to give her proxy in favour of a candidate who desired to supplant her husband, who was still living. He thought that was a disgrace, if it was not done by a mistake. It was simply with the view to prevent disappointment and to prevent expense to those Medical gentlemen who wished to come forward that the Board thought it right to bring this matter forward."

Among the candidates for the chair of Psychological Medicine at the Middlesex Hospital is Dr. Rayner, who has been recently appointed Resident Physician at Hanwell.

THE ARTERIES IN CHRONIC BRIGHT'S DISEASE.

AT the *conversazione* given by the Royal Medical and Chirurgical Society on Friday last, one great centre of attraction was the specimens exhibited by Dr. George Johnson and by Sir W. Gull and Dr. Sutton, illustrative of their views of the nature of the arterial change in chronic Bright's disease. Dr. George Johnson, as is well known, contends that in all the arteries of the body in chronic Bright's disease, and especially in those forms of it characterised by contracted kidney, there is muscular hypertrophy, meaning thereby an increase in the thickness of the muscular coat of the vessel, due to an increase in the number of the muscular elements. Sir W. Gull and Dr. Sutton, on the other hand, advanced the doctrine that the arteries were thickened indeed, but that this thickening was due to a hyaline-fibroid material, and that the muscular coat was in reality degenerated. Of course such a question could only be settled in one way, and that is by reference to actual specimens. Dr. George Johnson's specimens are well known, but Sir W. Gull and Dr. Sutton's were seen for the first time on the evening of the *conversazione*. Now, we are free to confess that it is dangerous to dogmatise after such an inspection of specimens as was possible on Friday evening. Men skilled in the use of the microscope as few men are skilled made mistakes in the hurry and had to look again, but on the whole the result was not doubtful—the verdict was in favour of Dr. Johnson.

As regards Dr. George Johnson's specimens, speaking with all due caution, and knowing well the difficulties in the way of judging aright, we are constrained to say that he exhibited specimens in which muscular hypertrophy, in the sense indicated above, was unmistakable—nay, some of the specimens exhibited by Sir W. Gull and Dr. Sutton showed the same thing as unmistakably as did any of Dr. George Johnson's. It is true most of these specimens seemed to show a marked

increase in the adventitia: in some purely fibroid, as might be expected; but in others the appearances were due to very different causes. Now, as we understand Dr. George Johnson's views, that gentleman is not prepared to deny that in certain cases the adventitia is hypertrophied in Bright's disease. His special contention—and on the whole he must be admitted to have proved it—is that the muscular coat is hypertrophied. With regard to any theories founded on either contention we meanwhile have nothing to say.

How comes it, then, that such men as Sir W. Gull and Dr. Sutton have been deceived?—for, speaking only by the specimens exhibited, it is clear they have been. The reason is not far to seek: they seem to have misinterpreted appearances artificially produced. A glance at these specimens showed the source of error. The first specimen we saw was the section of a large vessel cut apparently transversely—in reality, obliquely. Its walls seemed enormously hypertrophied; but it was not till after several inspections that we could see the cause. One cause was the oblique section; another was that all the elements were so soaked that they appeared of one kind only. In point of fact, it was only the discovery of the cut ends of the longitudinal muscular fibres which enabled the organ to be recognisable. And this was a type of the whole. Soaked in glycerine and water, the elements were so swollen and agglutinated that it was impossible to tell where one began and another ended; in short, the appearance was exactly as described by the authors—hyaline-fibroid. On the occasion of the reading of the paper, people complained of the vagueness of the expression—it was not couched in terms of modern histology, such as men accustomed to microscopical work are wont to express themselves in and to criticise. The specimens explained this; and Dr. George Johnson showed how the appearance might be begotten by causing the adventitia to swell with glycerine and water.

We are very far from saying that all Sir W. Gull and Dr. Sutton's specimens admit of this explanation—indeed, we do not think they do. However, we know now what the hyaline-fibroid change means. This is, so far, unfortunate for the authors of the paper, but it does not detract from the wonderful clinical acumen of the paper—that remains unassailed and unassailable.

CONVERSAZIONE AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

For the first time since its foundation, a *conversazione* was held on Friday last at the rooms of the Royal Medical and Chirurgical Society in Berners-street. The somewhat stately and venerable Society seemed a little out of place in its holiday garb; but we cannot help thinking that if in times past it had been somewhat more sociable, and somewhat less exclusive and aristocratic, it would have been better for it. However, it is "never too late to mend"; and we were well pleased to be present at the gathering on Friday evening. The numbers assembled were not large; but considering the weather, and the various other engagements of the night, it was successful. About 250 gentlemen assembled. The rooms were not overcrowded—often an evil—and there were excellent opportunities of viewing the various objects of art and science which abounded. The Society, by the alterations in its premises during the past year, has gained a large accession of library accommodation—probably sufficient to hold an additional 30,000 volumes; and the whole suite of rooms (the ground- and first-floors have been intimately connected by a new staircase of easy access) has an extensive and noble appearance, which the exterior of the Society's house would hardly lead us to expect. The meeting was confined chiefly to members of the Profession, and passed off most agreeably. The refreshments were abundant and *récherché*. Among the works of art arranged in the large meeting-room and the adjoining new reading-room, opened for the first time on this evening, were a very beautiful collection of Wedgewood medallions, lent by Dr. Sibson; Mr. Seymour Haden's finest etching, lent by Dr. Chambers; a fine picture by Constable, and specimens of Creswick and Bierstadt, lent by Sir H. Thompson; drawings by T. M. Richardson, J. Nash, jun. (View of Nice), etc., lent by the President; a beautiful selection of water-colour drawings from the well-known collection of Mr. Prescott Hewett (amongst which was the "Hastings Beach" of Turner, painted for Sir Anthony Carlisle for Medical attendance, and to which an amusing history of Turner's objection to receiving or paying for Medical advice is attached), lent by Mr. Vokins; a very fine T. M. Richardson, "Near Tivoli," and other pictures by Warren, Jenkins, etc., lent by Mr. H. Graves; some fine pictures, including the "Sabrina" of Frost, R.A., lent by Mr. E. Saunders; and Sir A. Callcott's "Venice" and McKewan's "Ludlow Castle," lent by Mr. S. Cartwright. Some autotypes from photographs by Mr. Vernon Heath, including his splendid effects in the photography of trees, were exhibited by the Autotype Company. Dr. Sutherland exhibited, for Dr. Crichton Browne, a collection of photographs of cases of mental aberration, chronic and recurrent mania, idiocy and imbecility, and general paralysis of the insane. Dr. Andrew Clark showed a collection of coloured drawings of pathological appearances of the lungs in cases of fibroid phthisis, pneumonia, etc. In the new reading-room Mr. Charles Baker, Mr. Ladd, and Mr. Browning exhibited their microscopes; and in the new library on the first-floor, now also opened for the first time to the Fellows, one of the events of the evening took place—viz., the exhibition, by Dr. George Johnson and by Sir W. Gull and Dr. Sutton, of microscopic specimens illustrative of the points in dispute between them on the condition of the coats of the arteries of the kidney in chronic Bright's disease, on which the discussion took place at the last meeting of the Society, on Tuesday, May 28. Other specimens illustrating the same subject were exhibited by Mr. Nettleship; some arteries from the pia-mater, by Dr. Beale; and Dr. Rutherford exhibited, from the Physiological Museum of King's College, his "Schema of the circulation intended to illustrate certain phenomena connected with the pulse and the blood-pressure," "Pitchforks for recording time upon revolving cylinders in order to ascertain the duration of various physiological movements," and "Helmholtz and Dubois-Reymond's myograph for studying muscular motion and the velocity of nerve-force." A selection from the Society's large collection of portraits of Medical men was shown on the long table in the front room, and two glass cases were filled with some of the more curious books in the Society's library.

THE MILITIA SURGEONS OF IRELAND.

Remonstrance with the governing powers is vain, if the remonstrance be not backed with such a display of force as to show not only the wishes, but the power of the complainants. Acting upon this conviction, the Militia Surgeons of Ireland have determined to try the effects of combination for the obtainment of their just rights and privileges. They have founded an Irish Militia Surgeons' Association, and at a preliminary meeting held at the Royal College of Surgeons last week the following resolutions were unanimously carried:—

"The course proposed to be adopted towards the Militia Surgeons by the Right Hon. the Secretary of State for War in his army organisation scheme so seriously affects our interests and position, that it is incumbent upon us to take immediate steps to secure a fair consideration of our claims.

"That, in order to carry out the above object, it is desirable to form an Irish Militia Surgeons' Association, to bring these claims before the Secretary of State for War, and to co-operate with our English and Scotch brethren.

"That the president and committee be requested to take immediate steps to prepare a memorial for presentation to the Secretary of State for War, praying for a favourable consideration of our claims."

The subscription is at present limited to 5s.

DR. ROBERT FOWLER'S ELECTION AS A GUARDIAN OF ST. BOTOLPH, BISHOPSGATE.—QUESTION WHETHER A PENSION DISQUALIFIES.

THE following letter needs little explanation. Dr. Fowler, a well-known Medical Officer, having been pensioned off, was elected to the Board of Guardians. The return was opposed. The decision of the Local Government Board, which gives him the seat, will settle all doubts as to the legal qualification for the post of guardian of many retired Medical men whose experience would render their services of the greatest value.

"Local Government Board, Whitehall, S.W., June 10.

"Sir,—I am directed by the Local Government Board to state that they have had under their consideration your letter of April 10 last, respecting the decision of the Clerk to the Guardians of the City of London Union, as returning officer in the recent election of Guardians, in rejecting the nomination of yourself as Guardian for the parish of St. Botolph, Bishopsgate.

"The Board have been in communication with the Clerk on the subject, and they forward to you a copy of the letter which they have received from him.

"The question as to your qualification for the office of Guardian appears to depend upon the last part of the 5 and 6 Vic., cap. 57, sec. 14, which provides that 'No person receiving any fixed salary or emolument from the poor-rates, in any parish or union, shall be capable of serving as a guardian in such parish or union.'

"The Clerk considered that you were not qualified for the office of Guardian, on the ground that you are in receipt of an annuity of £61 from the poor-rates, such annuity being paid to you by the Guardians of the City of London Union, as awarded by the order of the Local Government Board of November 8, 1871, as compensation for the loss of your office of a District Medical Officer of the late East London Union.

"It is true that the payment is not made to you directly out of the poor-rates; it comes to you from the common fund of the City of London Union. But that fund is raised by contributions out of the poor-rates, so that it may be considered that in effect it is paid out of the poor-rates.

"The question then arises whether this compensation annuity is such an emolument as is contemplated by the provision above quoted of the Act 5 and 6 Vic., cap. 57, sec. 14; and it is one not free from doubt. The Board have given much attention to the point. They think that the Legislature, by the provision in question, contemplated the possibility of a guardian sitting in judgment upon his own conduct, which is involved in the payment of 'salary or emolument,' and passed the enactment to prevent such a consequence.

"In the present case, however, the reason for the disqualification fails. The compensation awarded to you for loss of office was settled, not by the Board of Guardians, but by extrinsic authority, and cannot be altered in any way by the Guardians of the Union, and perhaps by no other authority.

"The 'emolument' appears to them to be like the 'salary' dependent upon services rendered by the recipient, and applies to an officer or person who renders services, and is paid by a fixed salary or fixed emolument, such as a poundage, rations, or perhaps residence. Such, in the opinion of the Board, is the person contemplated by the statute, and not a person who is paid compensation for the loss of office, and is no longer connected with the Union otherwise than as a pensioner. The Board are, therefore, of opinion that the Clerk arrived at a wrong decision in rejecting your nomination, and that you should have been returned as an elected Guardian for the parish of St. Botolph, Bishopsgate.

"The Board have forwarded a copy of this letter to the Clerk to the Guardians, and trust that you will be allowed to take your seat at the Board without further trouble.

"I am, &c., JOHN T. HIBBERT, Secretary.

"To Robert Fowler, Esq., M.D.,
"145, Bishopsgate-street Without, E.C."

A JUBILEE DINNER.—THE ESPRIT DE CORPS.

IT is pleasant to record an instance of good feeling and fellowship in the Profession like the following:—Dr. Lawrence, of Longside, last week completed the fiftieth year of his practice in that locality. A good knowledge of his Profession, a high and honourable career, had endeared him not only to his patients, but to his Medical brethren. They therefore determined to celebrate his jubilee of practice in a becoming manner. Accordingly, last week the members of the Buchan Medical Society, with a number of friends, amounting to sixty, entertained him at dinner at Lamont's Hotel, Ellon. A right merry evening was spent. Good speeches were made, and good songs sung; and the worthy guest made his acknowledgments in a thoroughly sensible speech.

TESTIMONIAL TO MR. SAMPSON GAMGEE.

WE have from time to time recorded the exertions of Mr. Sampson Gamgee with reference to the Working Men's Fund for the Extension of the Queen's Hospital, Birmingham. It is impossible not to acknowledge that Mr. Gamgee has acted with an energy and disinterestedness which entitle him to commendation. A testimonial was presented to him last week, which consisted of an illuminated address bound in red morocco with gold filigree ornamentation, and was signed by 250 of those who took part in the movement. Mr. Sampson Gamgee returned thanks in eloquent and feeling terms, and concluded a long address in the following words, which elicited much applause:—"By Profession a Surgeon, and not a politician—a healer of bodily pains and wounds, and not a prescriber for social ills and wrongs—I must be satisfied to look back upon my official connexion with you as an episode in a life which, in justice to yourselves and other well-wishers, shall be made useful, so far as will and work can make it, in faithful devotedness to a work which is above classes, and makes no distinction of persons."

SMALL-POX JOTTINGS.

Two fresh cases of small-pox were reported to have broken out in Camberwell last week. There had been no cases of the disease in the district for the previous three weeks.——Last week one death only occurred from small-pox in the Mile-end Old Town district.——Dr. McCormack, the Medical Officer of Health for Lambeth, in his report last week, stated that in the four weeks ending May 18 thirty-three deaths had occurred from small-pox; and he added that, were it not for the continued prevalence of small-pox, our standard of health would be most satisfactory, as there is an almost complete absence of all other zymotic or contagious diseases.——A lodging-house keeper was last week fined 20s. by the Thames Police-court magistrate for having neglected to give notice to the police that a person was on his premises suffering from small-pox.——Sixteen deaths are reported from small-pox in the Poplar Union during the past fortnight, and twenty-two new cases had been brought under notice. In the same period 122 persons were vaccinated at the public stations. There were five small-pox patients then under treatment in the North-street Infirmary.——The Aberdeen Small-pox Hospital return for the past week shows the total number of cases admitted since the opening, 218; number of patients in Hospital, 12; total discharged recovered, 169; total dead, 37.——Twenty-seven deaths occurred from the disease in the metropolis last week; in the two previous weeks they had been fifty-four and thirty-seven respectively.

PROTECTION TO A DOCTOR.

THE Spanish Government with their usual intolerance lately arrested and tried before court-martial at Cuba an American Physician of the name of Howard, on the ground that he had supplied medicine-chests to the rebels. He was found guilty, and imprisoned. We learn that the American Government have made a peremptory demand on the Spanish authorities for the unconditional and immediate release of Dr. Howard. There is no doubt the demand will be immediately attended to. There was no proof that the medicine-chests were sold during the rebellion. Dr. Howard asserts that they were disposed of previously to the outbreak. In either case, the American Government would have acted properly in demanding the release of an American citizen.

COMPULSORY SERVICE FOR VOLUNTEER MEDICAL OFFICERS.

Dr. John Murray, Hon. Sec. of the Volunteer Medical Association, has requested us to intimate that a meeting of Volunteer Surgeons will take place at the Grosvenor Hotel, Victoria Station, London, on Thursday afternoon, June 20, at four o'clock (H. Spencer Smith, Esq., Surgeon Civil Service Volunteers in the chair), to consider the following and other important clauses in the new regulations for the auxiliary forces:—"*Clause* 43. *Medical Attendance.*—The Surgeon will attend the adjutant and his family professionally, and will receive an allowance of 2d. per week for each person for attendance and medicine. The word 'family' will include wife, unmarried daughters, and sons under sixteen. The Medical officer of a corps to which a drill instructor is attached will receive a similar allowance for attendance upon, and medicines for, such drill instructor and family. The word 'family' in this case will include wife and children under sixteen." All Volunteer Medical officers are urged to attend. Communications on the subject may be addressed to the Hon. Sec., 40, Bryanston-street, London, W.

EXHIBITION OF ARTS, INDUSTRIES, AND MANUFACTURES, DUBLIN.

On Wednesday week the Exhibition was opened with great state by H.R.H. the Duke of Edinburgh, who represented her Majesty the Queen on the occasion. Loyal as the city was outside, it was not to be compared with the enthusiasm which greeted the "Sailor Prince" on his arrival within the Exhibition Palace, accompanied by his Excellency the Lord Lieutenant and the Countess Spencer. The ceremonial consisted in the performance of a programme of music, including selections from Haydn and Handel, and an ode composed for the inauguration by Sir Robert Stewart, and in the progress through the building of a procession in which the President of the King and Queen's College of Physicians in Ireland (Dr. Hudson), the President of the Royal College of Surgeons, Ireland (Dr. Frederick Kirkpatrick), Dr. Stokes and Sir Dominic Corrigan, Bart., M.P., Physicians to the Queen; Dr. George H. Porter, Surgeon to the Queen; and Sir William R. Wilde, Surgeon-Oculist to the Queen, took part.

CAN A PENSIONED POOR-LAW OFFICER ACT AS GUARDIAN?

It has been decided by the Local Government Board that the fact of Dr. Robert Fowler being in receipt of a pension from the City Union in compensation for the loss of his post as a Medical officer to the Union, did not disqualify him for sitting as guardian for the parish of St. Botolph Without, to which he had been elected by the ratepayers. The Clerk to the Board of Guardians, however, though not a lawyer, chose to put his opinion against that of the Local Board: the consequence was that the following resolution was carried by a majority of 23 against 3:—"That the letter from the Local Board be referred to the Amalgamation Committee, with a view to proceedings being taken to test the legality of Dr. Fowler's election."

THE PUBLIC HEALTH BILL.

It is understood that the consideration of the Public Health Bill in Committee will be deferred until the Scotch Education Bill and the Mines Regulation Bill, and probably also the Corrupt Practices at Elections Bill, have been disposed of.

THE HEALTHIEST MONTH.

The present month ought to be the healthiest during the London year. Diseases of the respiratory organs, which always go up as the thermometer goes down, are coming to their lowest point in June, and the effects of the second week in May—which, Professor Corfield reminds us, is known as a cold week amongst meteorologists—have now left their last mark on the Registrar-General's tables. Summer diarrhœa has not begun. Zymotic disease—that humiliation of modern science and morals—is on the decline. London is full, thought active, and wages high.

HONORARY DEGREES AT OXFORD.

It is gratifying to announce that the authorities of Oxford did full justice to the members of our Profession at the meeting of Convocation on Thursday last, on which occasion the degree of D.C.L. was conferred on the following gentlemen:—Samuel David Gross, M.D. and L.L.D., Professor of Surgery in the Jeaffreson Medical College of Philadelphia; Sir Benj. Collins Brodie, Bart., M.A., F.R.S., late Waynflete Professor of Chemistry; George Burrows, M.D., of Caius College, Cambridge, F.R.S., President of the Royal College of Physicians of London, and formerly President of the General Medical Council.

PROMOTERS OF VACCINATION.

Two examples of modes of promoting vaccination have been lately made public. These are widely different, both in respect to their authors and to their likelihood of success. The first is practical and to the point, and is in the form of a letter from the Bishop of Cork to the clergy of his diocese, recommending them to advise their respective flocks to submit themselves freely to revaccination, in order to arrest in some measure the small-pox epidemic at present existing amongst them. In the second a Californian editor offers to vaccinate, free of charge, all new prepaying subscribers to his paper.

FROM ABROAD.—MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The twenty-third meeting of the American Medical Association, held at Philadelphia from May 7 to 10 under the presidency of Dr. Yandell, has proved, so far as the numbers present are concerned, a great success. The registered members exceeded 720, being more than one hundred in excess of those attending any former meeting of the Association. As a social gathering—which, after all, is one main object of meetings of Professional men—it seems to have been very satisfactory; but a reporter in the *New York Medical Record* greatly blames the body for spending its scanty three days in petty and futile disputations, instead of "listening to scientific addresses or discussing scientific problems." Probably for their own practical purposes, the Association considered what the reporter calls their "petty squabbles over the code of ethics" a not unimportant matter in the present transitional position of the Profession, so widely scattered over so immense a territory. Nor can we regard the efforts so persistently made by this Society for securing the adoption of a satisfactory scheme of Medical education as deserving the ridicule here attempted to be cast upon it. That improvement in this must constitute the basis of all future Professional advancement is acknowledged on all hands; and how this is to be secured, except by some widespread co-operation of this kind, it is difficult to imagine. That the *Record* has its own fits of sanguine expectation may be seen from an article (May 1) warmly commending the Bill for the Suppression of Quackery, presented to the Legislature by the New York Medico-Legal Society. This provides for the creation of "a board of censors" elected from the Medical men of the various counties of the State, the members of which shall have the power of examining and licensing in their respective districts all those who claim a right to practise Medicine. The licence thus obtained is to be considered a legal qualification, all who are already in possession of a regular diploma being of course exempted from examination. All others, whatever their previous character or present practices, who are willing to face an examination by their orthodox rivals in practice will be at liberty to do so. That few will consent we may readily imagine; but what seems strange is, that anyone can have credulity enough to suppose that refusal to submit will be

followed by submission to the dictates of the law which prohibits their continuing to practise. If ever a law was destined to remain a dead letter, such will be the fate of this one—if it is ever passed, which is not very probable. Even supposing it were to come into operation, and to some extent prove successful, we could scarcely congratulate the Profession upon the new recruits, or rather conscripts, of disreputable character it had thus forced into its ranks.

One excellent feature of the Association is the great pains taken by it in investigating the antecedents of those who seek to become members. To do this they must be registered, and the credentials they bring from the various Medical bodies and societies of the Union are submitted to committees on ethics and arrangements, who report to the Association concerning all objectionable or suspicious candidates. Without some such precaution as this, and if admission depended upon a mere money payment, many persons might gain admission who would bring discredit on the Association. It is true that this agency has been and still is used in a manner which seems to us oppressive for the exclusion of coloured Practitioners, even when well qualified. A strong minority of the Association is, however opposed to this restriction, and no doubt it will soon be removed. The veto is also brought into play in respect to the women-Doctor question, which in the States is a far more formidable one than with ourselves. Speaking of its policy in this matter, the *Medical Record*, which is a strong advocate of female claims, thus expresses itself:—

"On the question of recognising woman's place in the Profession, the Association manifests the same illiberal spirit which has characterised it heretofore. The first ground assigned by its Committee on Ethics for the exclusion of the delegates, Drs. Palmer and Reyburn, in a report endorsed by an overwhelming vote, is that they are connected with a College which admits female students and employs a woman teacher. The Association refuses to acknowledge that this question is practically settled, and continues to pass resolutions and make decisions as if it expected the country to respect them. It ignores the fact that the rule applied in the case of these Washington delegates would equally apply to the representatives of the Medical Society of the County of New York, and those of the New York Pathological Society, both of which have women as members: that it would exclude those of every Medical College of this city, since the College of Physicians and Surgeons, the Medical Department of the University of New York, and the Bellevue Hospital Medical College have each one or more of its Professors on the Examining Board of the Woman's Medical College at the New York Infirmary; that it would exclude those of Bellevue Hospital and of every other Hospital under the Department of Charities and Correction, since these all admit women to their clinics. In view of these facts it strikes us that the women will not be sorely disheartened by the action of the Association. Though not granted a voice in its councils, they are still likely to make themselves heard."

On this last point we suppose no one can have any doubt, whatever the ultimate results of their success in forcing themselves on public attention may be. A motion proposed by Dr. Reese, of Brooklyn, but indefinitely postponed by the vote of the Association, would certainly meet with a better reception among ourselves, as offering a reasonable solution of the question. It was to the effect, "That whilst we admit the right of women to acquire a Medical education and to practise Medicine and Surgery in all their departments, we deem the public association of the sexes in our Medical schools and Hospital clinics as impracticable, unnecessary, and derogatory to the instincts of true modesty in either sex." As one of the speakers observed, probably the most effectual check to the women-Doctor movement will be found in the great disinclination which those of their own sex exhibit to consult them.

Among other matters brought under the notice of the Association was the report of a committee proposing the formation of a National Health Council, or Department of Public Health, in connexion with the central government, and under the supervision of the Association. This was supported upon the same grounds which render the institution of a Department of State Medicine so needed amongst ourselves. A more questionable recommendation was made by the Committee on Medical Literature, proposing to supersede the present annual volume of *Transactions* by a "national medical journal." The present publication may be, as the Committee states, somewhat trashy, and capable of great improvement; but any attempt to found a journal by a body possessed of very limited funds and composed of the most heterogeneous elements is sure to end in failure. Some good papers were read in the Sections, and altogether the meeting must be regarded to have been highly successful.

PARLIAMENTARY.—THE GOVERNMENT LICENSING BILL—PUBLIC HEALTH (SCOTLAND)—AGRICULTURAL CHILDREN.

On Friday, June 7, the Government Licensing Bill passed through Committee in the House of Lords.

On Tuesday, in the House of Lords, the Public Health (Scotland) Supplemental Bill passed through Committee.

On Wednesday, the Agricultural Children Bill—a Bill for extending the principle of the Factory Act to agriculture—was read a second time in the House of Commons.

AN ART UNTAUGHT; OR, A TALE FOR THE TIMES.

(*From a Correspondent.*)

Everyone familiar with London practice and Practitioners during the last twenty-five years must have been acquainted with the handsome face and portly form of Harry Chowder, M.R.C.S., L.S.A. Chowder lived in a thriving neighbourhood—I need not say whether S.E. or N.W.—filled with well-to-do tradespeople living away from their shops, and so near to certain great manufacturing establishments that there was a large population of mechanics and artisans, able and willing to pay their Doctor's bill, spite of the well-advertised Hospital with its out-patient room not very far off. He had a good horse, lived in a solid and comfortable, but not ostentatious way, frequently attended meetings, especially those of the N. S. Medical Society, of which he was V.P. for one year, though he never spoke. He had a large midwifery practice, and, though he raised his fee from the half-guinea with which it began, seldom got more than three guineas, *tout compris*. Was esteemed judicious in the treatment of children, more especially as he could show seven lively ones of his own; was on excellent terms with monthly nurses and clergymen, though he kept District Visitors and Ladies Bountiful at arm's length; held no extreme "views"—in fact was the model of a prudent, thriving Practitioner, whose life seemed to be one easy-going jog-trot along a smooth tramway, with no impediment in sight.

However, spite of what the modern geologists say, cataclysms and convulsions, moral and physical, will come when least expected, and will divert the course of the most torpid current. So it happened to Chowder. Two evil things befell him in one year. His house and neat little garden were taken from him by the great N. S. Metropolitan Extension Railway Company; and whilst he was settling himself in a new abode his wife and only son were cut off by a dreadful attack of diphtheria at a farmhouse to which the family had gone for country air. Chowder was himself brought very low by the same disease, caught whilst he was endeavouring to save his poor wife; and so the members of the N. S. Medical Society, at their first meeting in November, were not surprised to learn that he had gone to live at a little cottage which he had been often heard to say he possessed at some out-of-the-way seaside place, and that his practice had been purchased by John Larraper, Esq., F.R.C.S. Eng. (Exam.), who had distinguished himself whilst House-Surgeon at St. Vitus's Hospital.

Chowder was a good deal missed at first; but

"Quamvis digressu veteris confusus amici;"

and I might say with Samuel Johnson—

"I praised the hermit whilst I mourned the friend."

Still, time makes one forget heavier blows than the loss of a good neighbour, and I had almost forgotten him, when my family, one

day last month, received an invitation to a quiet garden party and croquet at Chudderton-on-the-Sea, which a lately-opened branch of the Kent and Suffolk line enables one to reach easily from London. Now, for my part (if your readers will not be shocked at such a societarian heresy), I hate and detest croquet. I look upon it as a thing invented by the devil, in the guise of an imbecile amusement, for the punishment in this world of idle clergymen. It involves standing about in the wet, stooping in ungainly attitudes, a worthless dexterity, and pernicious trial of temper. Neither do I agree with an ingenious and observant friend, who upholds it on Darwinian principles, as likely to improve the shapeliness of the legs of future generations of women by a process of "natural selection," for the game is most affected by old childless married men, confirmed bachelors, and inexpugnable virginities. However, one is always glad of an excuse for a holiday, and I was curious to see my old friend, and what kind of a hermitage he had chosen for his retreat. So we went on one of those few rare summer days at the beginning of this month, and a journey of a little more than two hours along the new branch loop-line brought us to a new railway station, where was a new railway hotel, and plenty of vehicles, one of which took us through what seemed to be the beginning of a prettily laid out little town on the edge of the sea, about two miles from the well-known old town of Sleepiton, which some say was a seaport in the time of King Stephen. Our friend's house—an old manor house, gentlemanly, but of no great pretension—was just through the new town site, and half a mile from the sea; and, by-the-bye, we noticed in the waiting-room of the railway an elaborate plan and prospectus of the new "residential estate" belonging to the "Chudderton Villa and Freehold Improvement Company," with new roads, plots for villas, site of a new church, park, and public promenade, with a little burn running through to the sea; together with the names of the architect, surveyor, and solicitor, to whom application might be made by persons wishing to rent or purchase.

Well, we were warmly welcomed, along with a few other invited guests—mostly of our own craft—who had come down in the same train, including Larraper, who seemed to fancy that the eldest Miss C—— would be a capital assistant in carrying on her father's old business. We saw the house, modest, quiet, and comfortable—nothing gaudy nor snobbish. We inspected the stables, hencoops, and piggeries; admired the yellow tea-roses just in full bloom with their exquisite perfume, and looked into the greenhouse; Chowder telling us with a quiet smile, as he quoted from *Punch*, that he did not pique himself on his flowers, but that he did love an early cucumber, and liked a few strawberries and early potatoes. Dr. Higgins, of St. Vitus's, who was one of the party, and not a good walker, vowed that he trotted us about till we were dead beat, and, as a Frenchman once said on a similar occasion, *il ne nous a pas epargné un seul chou*. However, as the afternoon grew on the girls were summoned from their croquet, and we all sat down to a capital cold repast, in the course of which Higgins recuperated himself on some particular sherry which had been disinterred when the railway destroyed the old house in London. After dinner the ladies went back to amuse themselves, whilst we men drew together to enjoy one more glass and a cigar.

Of course our chief talk was about our host. We praised his house, his grounds, and his establishment; and as most of us knew that he had begun the world upon little, and that his wife had no considerable fortune, curiosity grew rampant as we talked, till at last the Ulysses of the party was bold enough to say, "You must have played your cards deuceedly well, Chowder, to be able to retire and live in this style."

Now, Chowder is one of those quiet fellows whom nothing disconcerts, and who seems not to hear what he don't choose to answer. However, he got warmed at last, and said—"I think there is one branch of Medical practice which is never taught, and unless a man finds it out by nature, he is apt to make a mess of things if he lives long enough. It goes to my heart to think of the numbers of our Professional brethren who toil and moil year after year in studying or practising their Profession, and who either make no money, or, if they do, don't know what to do with it. This is the art which is not taught in the schools. For my part (he continued), I consider myself a good Practitioner, though not a scientific one. I well remember when the 'reflex function' was first talked about, and a double spinal cord, and things of that sort, and I candidly confess I never could quite make that out; however, there were things I understood better. I always had a keen eye for what would cure troublesome symptoms, and a keen eye for the slightest suspicion of danger, and, if so, always proposed a consultation. By this means I got on well in the world, and was popular with my patients and my Professional brethren. Then I had a pretty keen eye for business—did not charge much, but always kept my patients' shoulders to the collar as regards pay; nobody ever asked me twice for an account, for, as I said to myself, what is the use of fagging at one's work, and being idle in collecting one's pay? Then, as I lived very frugally, I found after a time that I had a little money to put by. And now came the difficulties. I found, on thinking the matter over, that with the ordinary savings of practice invested in the funds one had absolute security—of a sort, it is true; and you can always get your money, making allowance for the fact that when you want to sell out the funds may be ruinously low. But a man had need live to be 96 to provide for his family at this rate. Then, on probing the matter deeper, I found that when members of our own Profession have fallen into bad circumstances late in life, it was often not because they had not made money, but because they did not know how to keep and use it. Treacherous and unsafe investments run away with the fruits of a lifelong industry. Look at this month of June, 1872 (he continued), there is not one of us here who does not receive by post every day one, two, or three large oblong prospectuses, many of them accompanied with expensively got-up maps and plans. At one time mines abound—you are invited to invest your savings in the Grand Imposo Silver Mine, the Maritornes Lead and Copper Company (Limited), the Bottomless Mary Anne Wheal. Three times last week I got a prospectus from the Magyar and Transylvania United Coal, Iron, and Nickel Company, with an impudent announcement that after Friday residents in the country only would be permitted to subscribe. At another time foreign railways, loans to obscure foreign states, sewage and guano companies—limited companies, which always begin to the same tune: 'This company has been formed to purchase the well-established business of Messrs. ——, with all its plant and appurtenances, and to carry on the same. Messrs. —— consent to receive £10,000 in cash, and £20,000 in fully paid-up shares; and the Directors have much gratification in stating that Messrs. —— have consented to continue the management of the affairs,' etc. Some of these companies are better, some worse. The best are those that acquire a tangible property—houses, land, and the like; the worst are those that consist really in a subscription, to enable the directors to deal in stocks and shares, or to 'finance' various undertakings; and it is almost amusing to see how they count and divide their chickens before a single egg is laid. Such are the 'United Trust Endowment and Security Corporation,' of which I have received two prospectuses this week, which, by some miraculous gift of foresight, promises its subscribers a speedy return of £200 for every £94 invested, and from 7 to 10 per cent. interest in the meantime. Gambling is gambling, and it does not matter whether people do it themselves or whether they subscribe the cash for abler hands to play with. For my own part (he continued), I always keep clear of bargains which assume that the seller must be a liar or a fool. What Yankees, for example, would be such fools as to sell to the Britishers a silver mine worth £1,000,000 for £200,000? and who but Britishers would be such fools as to buy a mine in the Mormon Settlements?"

"You cast a damp upon all investments," we said.

"Not a bit of it," he replied; "of course I don't speak of the men at the top of the tree, whose legitimate savings grow into a fortune. But I repeat, that as things are it is only by a dexterous or lucky employment of money saved that an ordinary member of our Profession can attain to anything like independence. Keeping your money in the funds is not free from some risk, for you may be obliged to sell at a loss. Investments of all sorts are liable to uncertainty, as all other earthly things are; but there are some which are sure to end in a loss, unless the investor use them like a cold bath—just dip in, and sell out at a premium, and wipe himself dry. But it's ill playing with edge tools, and one diamond can cut another. In many a 'limited' company all the possible 'profits' are booked and divided amongst the 'promoters' before a share is issued. Some things are sure to be ruinous on the face of them; some have a good chance of success if due allowance is made for the uncertainty of human affairs. I learned early under an excellent teacher that population and gold increase, whilst land does not increase; therefore, that it must rise in value in time, and more be required for human habitations. Finding that this out-of-the-way place was to be sold cheap, I bought it; but now the new railway has brought it into easy reach, and I have sold my

indifferent pasture land to a company, who are going to erect a town which will make my daughters rich. Here I stop; but let me say again that bad investments cause as much poverty and misery as mere idleness—that the best may be fallacious, but that the safest are those based on the gradual rise in the value of land, and the policy of improving land, side by side with increase of people and gold."

We felt that our host had given us a pretty good glimpse at the secret of his prosperity, and refrained from pushing our inquiries further. But on our way home, as may be imagined, the subject did not drop, and most of us had a story to tell of the ignorance of business matters and business habits which mark some members of two, at least, out of the three learned professions; how they are absorbed in their practice, and let their accounts fall into confusion; and how they become weary of adding sixpence to sixpence, and become bitten with credulity as to the possibility of becoming rich at a jump by merely investing in such or such a clever swindle. I know by sad experience how that all the respectable inhabitants of a midland cathedral city—clergy, Doctors, ladies of limited income, and all the denizens of the "Close" had been inveigled into a German iron mine; and how, long after the capital had been lost, there were heartbreaking "calls" for the winding-up, under circumstances of "unforeseen" difficulty. Many were the fatherless children and widows that cursed the "Nisterdale" Iron Company. Let us invoke the *Medical Times and Gazette*, in the hope that the knack of taking care of one's money may not be always "an art untaught."

PROFESSOR HOLMES'S LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Mr. Holmes, Professor of Pathology and Surgery to the Royal College of Surgeons, continued his lectures on "The Surgical Treatment of Aneurism in its various forms" on Wednesday, June 5. In his first lecture, a brief abstract of which appeared in our columns last week, he stated that the main propositions to be brought forward in this course of lectures were the following:—

1. That aneurisms of whatever form, or however near the heart they may be, ought not to be regarded as incurable, but should be made the objects of definite methodical treatment, internal or external.

2. That there is definite proof, from pathological anatomy and from Surgical experience, of the curative influence of Brasdor's operation in innominate aneurism, and of its beneficial effects in some cases of aortic aneurism.

3. That arteries may be successfully tied and obliterated without their continuity being interrupted; and that this modification of the ligature, whilst affording much security against secondary hæmorrhage, and thus much diminishing the danger of the operation in general, may very probably in future enable Surgeons to deal successfully with cases in which it may be necessary to tie the first part of the subclavian (whether on the distal or proximal side of an aneurism) or the innominate artery.

4. That galvano-puncture may be used with, at any rate temporary, benefit in thoracic aneurism. That its use is not so dangerous as to render further trials of it inexpedient; and that there is good hope that the method may be so far perfected as to make it a safe and regular plan for the treatment of thoracic, subclavian, and other forms of aneurism.

5. That many cases, such as those in which ligature of the artery near to the heart has been resorted to for the cure of subclavian and subclavio-axillary aneurisms, may be made amenable to improved methods of pressure.

6. That aneurismal tumours, situated even as high as the lower part of the abdominal aorta, those of the mesenteric and other branches of the aorta, and of the iliac arteries, may be treated with success by rapid coagulation of blood under pressure; but that this method is a dangerous one, and should not be used until internal treatment has failed.

7. That there are cases of abdominal aneurism in which Mr. Syme's suggestion of reviving the old operation is worthy of further trial.

Having shown, too, in his first lecture that there are some cases of innominate aneurism which may be completely cured by Brasdor's operation, the Professor commenced his second lecture by expressing a doubt whether one may fairly expect complete obliteration of the sac from distal obliteration of the arteries when the tumour is partly aortic. Cases were, however, cited which justify the conclusion that in an aortic aneurism, as well as in those of the innominate artery, the obliteration of any of the arteries, such as the right or the left carotid—which lead directly out of the sac—will be followed by consolidation in that part of the sac which is distended by the stream of blood formerly passing up the obliterated vessel.

It should always be borne in mind that it is not usually the existence of an aneurism, however large, which is dangerous to life, but the growth of an aneurism, however small, in some definite direction. To stop this growth would preserve a patient from a danger which cannot be over-estimated, and would be worth more risk than is involved in tying the common carotid or the subclavian artery. Again, to line any portion of the sac of an aneurism which is growing and threatening to burst is a reasonable object for operation, even if this involves danger, and if the rest of the sac remains unconsolidated. These results are obtained by the obstruction of the arteries or artery leaving an aneurismal sac, as has been shown. Mr. Guthrie, however, endeavoured to show, from preparations in the College museum, that the distal operation of an artery would not cure an aneurism. Mr. Guthrie, even in advancing this argument, was obliged to admit that distal impaction is an effort of nature to cure the disease, though he did not believe that the disease could be entirely cured by it; and he further endeavoured to show that in cases where Brasdor's operation has been entirely successful, this success has been produced by inflammation propagated from the seat of ligature to the artery, and thence to the walls of the sac. Professor Holmes thinks that in this particular Mr. Guthrie's judgment was misled; for in one of the cases (Evans's) upon which Mr. Guthrie based his conclusions, the inflammation was caused by imprudent exposure and intoxication long after the immediate results of the operation had passed away; and though the same cannot be said of the other case—the negro operated on by Mr. Montgomery—yet suppuration in the sac follows occasionally after the Hunterian as well as after all other modes of treating aneurism, apparently as the results rather of imperfect coagulation within the aneurism than of inflammation of its parietes. It seems clear that coagulation in the sac has been more extensive and complete in cases where no inflammatory symptoms have been recorded.

The distal impaction of clot, in cases of aneurism, often produces very severe symptoms, and is followed by rapid and extensive coagulation in the aneurismal tumour. A case illustrative of these facts occurred under the care of Dr. S. Hughes, of Dublin, in which death took place in a few minutes from convulsions, and after death the dilated aorta and the left ventricle of the heart were found full of recent coagula.

In passing from the *à priori* reasons for believing that Brasdor's operation may be entirely or partially successful in some cases of innominate or aortic aneurisms to the practical results of distal ligature, the Professor drew attention to a table which he had constructed, and which comprises all the cases of innominate and aortic aneurisms which he has met with. For reasons which were stated at length, the Professor refused to use this table in a statistical manner. Though the death-rate is enormous, and though evidence of sound and permanent cure is wanting in all save three out of the whole forty-three cases, the early history of ovariotomy ought to convince us that these facts are not of themselves sufficient as a basis of a trustworthy judgment as to the future applicability of the distal ligature. Instead of the statistical method of reasoning, therefore, those cases of which there are reliable histories or preparations were selected and discussed so as to learn the lessons which each teaches.

The first part of the table refers to cases in which the carotid was tied first and the subclavian afterwards, the intervals being two years, six months, ten weeks, and seven weeks. The well-known case of Mr. Fearn is the first of these, and this case may be accepted as proof that it is possible by double distal ligature to check the progress of an innominate aneurism and restore the patient to a state of health. In each of these four cases the ligature of the carotid was, in the judgment of the operator, productive of relief, especially when symptoms of pressure on the trachea existed. In all these cases the aneurism was innominate, but in one the aorta also was affected. In all four the carotid artery was tied first.

The second part of the table contains eight cases of double simultaneous ligature, two of which were strictly on Brasdor's principle—*i.e.*, distal ligature, with no branch between sac and

ligature—and six in which Wardrop's plan was adopted. Death happened in both cases where Brasdor's operation was employed, but one of them (Hobart's) is a case of unique interest, for it was found upon post-mortem examination that *perfect union had taken place where the ligature had been applied on the subclavian artery*, but a small opening was found in the carotid, through which hæmorrhage had occurred. In spite of these two cases—the only two on Brasdor's method—being fatal, Professor Holmes cannot doubt that the operation, if it could be successfully *performed*, would cure the disease.

Wardrop's operation is justified, and its repetition encouraged, by Mr. Heath's case, in which this plan of treatment was adopted, and much relief to the dyspnœa and diminution in the size of the tumour resulted. The case of innominate aneurism, in which the sac opened by a very large orifice into the aorta, and which was operated upon by Professor Holmes himself—catgut ligatures being employed, and afterwards galvano-puncture—points to the following conclusions:—1. That the double distal ligature will not produce consolidation in an innominate aneurism if it is partly aortic. 2. That galvano-puncture may be employed in such a tumour with the effect of producing great consolidation, but that if this consolidation is very rapid there is risk of inflammation. 3. That arteries may be tied as securely with the carbolised catgut ligature as with silk. 4. That such ligatures melt away in the wound without being discharged from it. 5. That an artery under such circumstances may preserve its continuity whilst its lumen is obliterated at the part tied, and thus the chief risk of secondary hæmorrhage is obviated.

From the cases contained in the third part of the table, in which the carotid alone has been tied on the distal side of an aneurism, the Professor thinks there is evidence enough of the benefit derived from the operation in some cases, and to justify the inference that this operation is urgently indicated in any instance which may prove appropriate. Of these recorded cases, there were 11 in which the innominate alone was affected, 4 where the innominate and carotid, 3 where the innominate and subclavian, and 11 where the aorta alone, or with one of the large vessels coming off from the arch, were involved.

Of those cases where the aorta was diseased, the right carotid was tied in four, and the left carotid in seven cases.

The Professor then quoted Velpeau's remarks upon two of these seven cases from "Nouveaux Eléments de Médecine," in which he says—"It would appear, *à priori*, that ligature in the hyoid region might suffice in all cases in which the aneurism occupies the carotid only, but that it would be necessary to join to this the ligature of the subclavian when the innominate trunk is itself affected. These two cases, together with those of Evans and Montgomery, prove incontestably that the ligature of the carotid alone may arrest the development not only of aneurisms of the innominate, but also of those of the arch of the aorta." Velpeau goes on to say—"Ligature of the carotid on the method of Brasdor deserves trial, even in cases where the aneurism appears to be prolonged down to the aorta. I must, however, still doubt whether the chances of success would not be notably increased by the ligature, simultaneous or consecutive, of the subclavian, only there remains the doubt whether the internal mammary, vertebral, and thyroid axis would not keep up the circulation in the root of this vessel, and thus destroy all the effect of the ligature upon the aneurismal sac."

The table concludes with two cases in which the subclavian artery has been tied in its third part for innominate aneurism. The first is the well-known case of Mrs. Denmark, operated upon by Wardrop; the other case that by Brocs, the details of which are given in Holmes's "System of Surgery."

The Belfast District Hospital for the Insane.—The forty-second report of this institution for the past year states that the admissions during the year had been 130; discharged recovered, 82; relieved, 6; deaths, 21; and there remained, on December 31, 335. The receipts had been £7332 8s. 2d., and the expenditure £7061 2s. 7d., leaving a balance in hand of £263 5s. 7d.

The Indian Dengue.—Dr. Christie, Physician to Synd Bargash, the Sultan of Zanzibar, thus describes the Indian epidemic dengue, which is now raging severely among the European population of Calcutta:—"The first symptoms are those of severe muscular and articular pains, accompanied with fever, and on the fifth day an eruption, resembling erysipelas, followed by swelling of the joints and glands, and subsequent shedding of the cuticle. The disease seemed to be communicable." Dengue is not known as an epidemic in Europe.

REVIEWS.

Remarks on the Healthy and Morbid Anatomy of the Perivascular System of the Brain. By W. W. Wagstaffe, F.R.C.S.

Among the contents of the St. Thomas's Hospital Reports for the present year will be found a very interesting paper, by Mr. Wagstaffe, on the perivascular canals of the brain. Although this system was discovered some sixteen or seventeen years ago by Robin, no great amount of attention was given to it for some years, and so recently as 1866 these very sheaths were described and figured as morbid states of the vessels in cases of general paralysis of the insane. Just before and since this date, however, several histologists were working at the subject.

His showed by his injections that these sheaths or canals, from the regularity of their calibre, were produced neither by extravasation from nor collapse of the bloodvessels themselves; and it is now by general consent established that the presence of these sheaths in the pia mater as well as in the brain and spinal cord is not morbid but quite a normal condition.

The experiments of His were conclusive enough; but it was soon found that nature, or perverted nature, was in the habit of providing an injected view of these canals, for those who sought them, in cases of tubercular meningitis. First Virchow, then Rindfleisch, and then Bastian drew attention to this fact, though the latter differed from the others in his interpretation of the cause of the swelling of the sheaths—he regarding them as due to the altered condition of the epithelial lining of the canals, they to proliferation of the connective tissue of the outer coat of the artery.

His pointed out the connexion which exists between these canals and the lymphatics through the medium of the epicerebral lacunæ between pia mater and brain surface; though he denied that there was any connexion between the sub-arachnoid space and the lymphatics of the pia mater. He also showed the mechanical uses of the perivascular system as a protective to the brain substance, and as compensatory for the varying amounts of pressure, which reduces to a minimum the action of the bloodvessels upon the nervous substance.

Another disputed point respecting these canals is as to the structure of the sheaths themselves; and with the consideration of this question the remarks in the paper referred to upon the "*Healthy* Anatomy" of the perivascular system commences. Mr. Wagstaffe states that his investigations convince him that the structure of the sheaths differs in canals of different sizes, as well as in those of the same size examined at varying intervals of time after death. He says—"It may be easily shown that a description of a sheath surrounding a small vessel will not at all apply to that enclosing a large one. If a small vessel be examined after removal from the human brain ten or twelve hours after death, the wall of the sheath appears to be structureless or only faintly granular, and no epithelial lining is visible when a one-sixteenth object-glass is used; but if such a vessel be examined immediately after death, the transparent membrane is lined by a very definite layer of epithelium. . . . . The transparent membranous wall, too, gives indication of a transverse and longitudinal striation."

Corresponding differences are observed in vessels of different sizes, the general conclusion we draw being that in perivascular sheaths of medium-sized and large vessels, *in the recent state*, the walls are seen to be composed of an outer set of longitudinal wavy fibres, within which is a set of delicate circular fibres, and within this again a third layer, either of corpuscular material or "with longitudinal markings distinct from the proper coat of the artery contained within the sheath." *After a delay of twelve hours from the time of death* the two inner layers are very much less distinct, and the striated appearance of the outer fibres more faint.

With reference to the *morbid* anatomy of this system of lymph spaces, Mr. Wagstaffe alludes to two cases of tubercular meningitis which bear forcibly upon the pathology of this disease. The first case was an advanced one in a child 1½ year old, and the second one of acute tuberculosis of the lungs and kidneys in a man aged 30, in whom no cerebral symptoms had shown themselves. At the examination of the body of this man no indication of tubercle of the brain or membranes was visible to the naked eye.

In both these cases the perivascular canals of the meninges (which in health are very difficult to be seen) were observed distended with nuclei, of pretty uniform size, surrounded by an irregular amount of plasma; but that, in the first case, besides this appearance, clusters of miliary deposits of various sizes, and always related definitely to the vessels, and in some

places undergoing degenerative changes, were also noticeable. Hence, then, the inference that the presence of these nuclei or nucleated corpuscles in the perivascular canals of the brain and membranes represents the early stage of tubercular meningitis.

In answer to the question "What is the nature of the deposit, and whence is it derived?" Mr. Wagstaffe adopts Bastian's view that its source is the epithelium normally lining the sheaths, and which is intermediate between spheroidal and tesselated.

In a third case—one of tumour of the brain and membranes—attention is drawn to a point in the pathology of the perivascular canals not hitherto noticed—viz., the probability of disease, such as a tumour of the sarcoma type, commencing in the connective tissue of a membrane in communication with these canals, and spreading rapidly along their course. The seat of morbid change in this case was different to that in tubercular meningitis, as there was no deposit within the canals; but their sheaths were "apparently thickened, and from their outer surface started an abundant cellular growth, consisting of caudate nucleated cells of pretty uniform character, together with an abundance of free nuclei."

Our space will not allow us to quote more fully from this paper, but we recommend its perusal to our readers as being instructive and suggestive, with the extra merit of being brief.

The author expresses his belief in the existence of these perivascular sheaths in others besides nerve tissues, and thinks he has traced them in muscular and fibrous tissues, and in the ovary and elsewhere. We quite anticipate that several structures which at present are not reputed to possess this system will in time be proved to do so, and we are aware that Macgillavry found in injected preparations of the liver lymphatic sheaths around the bloodvessels, though he could not satisfy himself these were lined with epithelium. Langer's investigations in the frog show, in opposition to Stricker's observations, that instead of the presence of sheaths around the blood capillaries of the lower eyelid of this animal, there are only two lateral lymph-tubes lying close to the bloodvessel, and every now and again uniting by transverse anastomoses crossing the vessel.

These considerations ought to make us guarded against hastily admitting the existence of lymphatic sheaths around or within the tunica adventitia of the bloodvessels. One point upon which the author of this essay does not touch, but upon which we hope soon to have some observations recorded, is as to the variations produced by different reagents upon these canals. There can be no doubt but that these do cause great alterations in the appearances of tissues, and it is now beginning to be suspected that many characters attributed to structures are due to changes in those structures produced by modes of preparation.

His stated that in chronic congestion the perivascular canals may become permanently widened; but we have more than once been puzzled to know, when looking at hardened specimens, to what degree the calibre of the spaces as seen is due to the method of hardening.

NEW BOOKS, WITH SHORT CRITIQUES.

Elementary Treatise on Natural Philosophy. By A. Privat Deschanel. Translated and edited, with extensive additions, by J. D. Everett, M.A., D.C.L., etc., Professor of Natural Philosophy, Queen's College, Belfast. In four parts. Part II., Heat; Part III., Electricity and Magnetism. London: Blackie and Son.

*** Some time ago we had occasion to speak in terms of high approbation of this very admirable treatise on physics. The second and third parts, now before us, are deserving of even higher praise than the first. Good as Deschanel's work is—representing a good fair average in point of acquirements in physics if fairly mastered—Professor Everett has materially improved it. Certain departments of physics have been especially studied by British physicists, perhaps in view of the requirements of our manufacturing genius. In this way the mechanical equivalent of heat has now many important functions necessitating the rigorous application of mathematics to the phenomena of the conversion of heat into energy. This has been fairly mastered in this country, and Joule's equivalent is now a well-known quantity, universally made use of in such computations.

So, too, our experience in laying ocean cables for telegraphic purposes has necessitated and given a more accurate knowledge of the laws of electricity than could be otherwise obtained. It is, therefore, with reference to the subjects of thermodynamics and electricity that we find the superiority of this edition over the original work most marked, but it is elsewhere to skilled eyes equally apparent.

To our mind this work as nearly as possible hits the golden mean. As taught in many of our higher schools and Universities, physics have too much the guise of applied mathematics; as taught in some of our manuals and schools, mathematical accuracy is too much overlooked. Here we have mathematics applied when they can be with advantage, but omitted when they are not desirable for one who is not reading for the mathematical tripos. We can, therefore, cordially commend it to our students as a means of training the mind to vigorous thought as well as of acquiring a proper knowledge of natural philosophy. The fine woodcuts give the volumes a special value of their own.

The Medical Wants of the Potteries and Neighbourhood. By Chas. Orton. Dilworth, Newcastle.

*** This little pamphlet contains some useful information, and offers some practical suggestions to meet the Medical wants of the district.

FOREIGN AND COLONIAL CORRESPONDENCE.

AMERICA.

Philadelphia, April 20.

The Diploma Trade — The Appointment of Medical Teachers in America—The Wharton Poisoning Case—The American Medical Association.

The result of the persistent efforts made by members of the Profession to effect legislative interference that would crush out the vicious diploma traffic has already been communicated to you. Strange that it should have been tolerated so long. In one instance a diploma was made out in the name of a child a year old. The two colleges engaged in the business have been deprived of their charter, and one of them is about to be brought to the auctioneer's hammer, but the men who thrived upon this vile traffic go unpunished, and are not likely to receive any greater castigation than that which morally follows from being held up to the public scorn and contempt.

I spoke in my last letter of Medical colleges and some of their regulations. Several changes have been made in the *personnel* of these institutions recently by death or resignation. The main point of interest to you abroad, however, would probably be a knowledge of the mode in which the appointments of Medical teachers are made in this country. Let us take one of these schools as an illustration of the usual method adopted in all. A distinguished and honoured Professor died, leaving behind him pleasant memories among thousands who have listened to words of wisdom and eloquence from his lips, or have been the recipients of his graceful friendly greetings. The earth is scarcely laid upon his silent dust—indeed, in some instances, his feverish brow is scarcely cooled by death—when the question of the succession begins to loom up in magnificent proportions. Cases have been known where some of the vacancies in "appointing boards" have been filled for several years before the anticipated death or resignation of a popular professor with relatives of a perpetual candidate, such as brothers or intimate friends, with the too evident object of foisting upon an honoured institution by petty political chicanery an ofttimes unworthy aspirant. Such candidates, who, it may be truly said, are equally fitted for any vacancy—being totally unfitted for any—have been described as men of great application, for they apply for any position which lies open, and their talents fit any groove. The board of trustees of some of these institutions is made up of men of greatly varying calibre; some of them mere politicians, who believe that a school once established will thrive, even if all the solid props that once supported it are gradually knocked from under it, and replaced by weaker substitutes. Others, however, are men of culture and intelligence, who have a warm interest in the prosperity of the school, and may always be relied on to vote for the best man for the position. The contest sometimes waxes very warm, and the unworthy candidate may, perhaps, be chosen; but the institution dates from such appointment a downward career, the current of which a little foresight could have easily changed. The

struggle for a professorship is interesting enough when the aspirants are almost evenly matched in Professional excellence; but it becomes painfully so when, as sometimes occurs, one of these, of strong pretensions and mediocre qualifications, is brought prominently into dangerous competition with a gentleman of recognised ability and worth as a lecturer, author, or teacher, the only field of personal competition in which they are ever again to figure. Such unequal contests are not unknown in this country. Few of these appointing boards have a sufficiently strong infusion of Medical Professional representation in them to influence in any way the verdict of the majority. In all these bodies, which govern Medical institutions in this country, the object seems to have been to keep out Medical men from the position of trustees; and if the name of an M.D. does appear, it is often that of some fossilised member of the Profession, whose interest in its progress dates back a large fractional part of a century, before he gave up its active pursuit.

I spoke to you in a recent letter of the Wharton poisoning case, which, although the topic of the hour at the time, is now a thing of the past. Still, the lessons flowing from it have not been lost upon the Profession. I mentioned how seriously the Medical and Chemical "experts," as they were loosely called, differed in the public expression of their views in the witness-box. It was assuredly a sorrowful spectacle, for it diminished the confidence of even reflecting people in the validity of technical testimony, and gave the weak doubters something on which to strengthen their incredulity. Dr. John J. Reese, Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, who was one of the most intelligent and accomplished witnesses for the defence, has just published (*American Journal of the Medical Sciences*, April 1872) a review of this trial, which must be interesting to all Medical, and especially Medico-legal, men at home and abroad. Such cases have no local habitation peculiar to themselves, and should excite an equal degree of attention everywhere. I will not, therefore, offer any apology for analysing this contribution of Dr. Reese's, the chief points of which might not otherwise be brought before your readers. The history of the main facts of the case was given you in the letter referred to (*Medical Times and Gazette*, April 6, 1872), and need not be again detailed. Probably the strongest point against the accused was the fact that an analysis of the contents of the stomach by Professor Aikin satisfied him that at least twenty grains of tartar emetic were present there; and the bare assertion of this fact, without further inquiry as to the method of examination employed by him, for a while bore heavily against the prisoner's prospects of acquittal. A hypothetical case was made, in which one of the principal elements was the supposed finding of these twenty grains, and it is probable that the assumed fact materially influenced the testimony of the witnesses for the prosecution. It is supposed that some of them might otherwise have concluded, from the facts presented in this hypothetical case, that death resulted from purely natural causes. An attempt was made to establish tartar-emetic poisoning, but unfortunately for the prosecution most of the prominent toxical symptoms were absent. The argument of these witnesses, as Dr. Reese states, seemed to be that, because all the symptoms of the hypothetical case did not, in their opinion, correspond with certain diseases, and also because the generally recognised lesions of these diseases were not observed after death, *therefore* the death must have resulted from a non-natural cause—*i.e.*, poison. This is virtually to admit that metallic or irritant poisons must prove fatal, without ever leaving any lesion behind, discoverable by post-mortem examination! None of the Medical witnesses for the State testified that tartar emetic was the occasion of death; all save one merely spoke of it as being produced by non-natural causes. The defence of course was designed to prove that death might have resulted from natural causes, and probably from cerebro-spinal meningitis, which in the fulminant form may prove fatal, without leaving behind any discoverable lesion.

After all, however, the chemical testimony constituted the main feature of the case. Here was a poison stated to be found on post-mortem examination, without any ante-mortem symptoms corresponding with its presence there. Professor Aikin gave a detailed account of his mode of testing for antimony, which awakened the lively criticism and animadversion of several of the chemical experts for the defence. He passed sulphuretted hydrogen through the solution obtained from the stomach, strongly acidified by tartaric acid, *but still containing all the organic matter*, and obtained a precipitate which, for aught he knew, might have contained only sulphur and organic matter. Instead of weighing the precipitate, he seems to have guessed at it, comparing two separate precipitates by his eye alone. If one of these was made up of nothing but sulphur and organic matter, it might, as Dr. Reese suggests, have very considerable bulk, and yet possess but very little weight. Professor Aikin did not produce metallic antimony in court, for he did not get it; and his testimony was almost annihilated by that of the defence, demonstrating that the colour-test (the orange-red precipitate), with all its subsequent reactions, except in one single point, might be exactly imitated without the presence of an atom of antimony. Then, when the utter futility of Dr. Aikin's evidence for any practical purposes was clearly exhibited, the Commonwealth procured another analyst, and without the knowledge of the defence made a new chemical examination of the liver and other viscera, which were the second time disinterred for this purpose by order of the State; but the results were proved to be not infallible, from causes in some respects similar to those previously mentioned, which need not be detailed. Such delicate manipulations certainly require more care in weighing of fractional milligrammes than was given in this case. The chemical witnesses for the defence insisted on the production of the metal in court in sufficient quantity for them to operate upon it and prove or disprove the poison; and also on the absolute necessity of excluding all extraneous substances, such as sulphur and organic matter, in the precipitate, which was to be weighed for the purpose of estimating the actual amount of the discovered poison. The attempt was made by the prosecution to cover up their neglect of this precaution by flatly denying its necessity. The deceased had taken several doses of chloral and yellow jessamine, and the defence satisfactorily proved that not only is there a similarity between the yellow-brown precipitates produced by passing sulphuretted hydrogen through an acid solution containing organic matter, and the precipitated sulphide of antimony; but that if the organic substance in the solution acted on by the sulphuretted hydrogen be the tincture of yellow-jessamine and chloral (the latter is not essential), and sufficient time be allowed—say several hours,—the colour of the precipitate is of a decided orange-red, which would defy any chemist to distinguish from the (supposed) characteristic orange-red sulphide of antimony. A still stronger coincidence is found, however, in the fact that when the orange-red precipitate is itself subjected to further proofs, almost every test used produces similar results, whether it was the organic precipitate from gelsemium, etc., or the chemical one already referred to. These are the main points in this very interesting case, as honestly and ably stated by Professor Reese, and I may be pardoned for dwelling on them so lengthily, as the features presented in this *cause célèbre* are likely to be the basis of many new toxicological researches, and to open a more extended field of inquiry in regard to the proper employment of chemical reagents in future similar cases of intense Medico-legal interest.

The American Medical Association, which meets in this city on May 7, is likely to be one of the most agreeable social reunions which this body has ever had. The Medical men of Philadelphia are determined that nothing but pleasant reminiscences of their visit shall cling around it; and no matter what difference of sentiment may enter into the discussion of mooted questions in the Convention, the spirit of genuine hospitality and cordial welcome will pervade all the arrangements for their comfort and enjoyment. I have previously said that I consider this the most important feature of these annual gatherings, and that the actual amount of benefit accruing to the Profession from work done in them is not very considerable. This is partly due to the fact that the action of the National Association has no legal or binding force even, on the colleges or societies represented in it. Everything is voluntary, and whatever resolution is adopted in it to influence these subordinate bodies may have a certain amount of moral effect, but that is all. Still, the course of this general representative mass of the American Medical Profession is eagerly watched by the societies of the states and counties, and by institutions for Medical instruction, who sometimes strengthen their own tendencies to the adoption of decisive measures of reform by basing them on the previous action of the larger body. Among the aids extended to the visiting delegates, a handsome little handbook or guide to the city has been issued for gratuitous distribution, which will be worth presenting as a memento of the annual meeting of 1872. Of the proceedings of this session I shall speak much more minutely in my next.

FROM the West Coast of Africa we learn that the health of the coast at all the ports was good.

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL OFFICERS AS OFFICERS OF HEALTH.

LETTER FROM DR. JOSEPH ROGERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg to forward a letter from Mr. Bridger, enclosing a copy of a resolution adopted at a conjoint meeting of members of the Poor-law Medical Officers' Association and of the British Medical Association held at Cambridge last March, and trust you will be so good as to publish the same in this week's issue. I make this request, as I am given to understand the impression exists that the Poor-law Medical Officers' Association will, of necessity, reverse the policy it has hitherto followed as regards Mr. Stansfeld's Public Health Bill in virtue of the resolution adopted by a majority of one at the meeting of the Association at the Medical Club on the 28th ult., the attendance on that occasion being the smallest ever recorded, nine gentlemen only having been present. I shall further be obliged if you will permit me to state that the action that has been taken (so far, at least, as I am concerned) has been mainly determined by the nature of the communications which have been sent me by a very large number of provincial members; of the character of these the Cambridge resolution gives a very fair idea. Surely the views of these gentlemen are entitled to the largest consideration, seeing the Bill as drawn affects the interests of Medical officers of the provincial service exclusively. I am, &c., JOSEPH ROGERS,

Dean-street, June 11. President of the Association.

Resolution put and adopted by the Medical officers present in Cambridge at a conjoint meeting of the British Medical Association and Poor-law Medical Officers' Association of the counties of Cambridge and Huntingdon, held on March 26, 1872.

"We, the undersigned members of the Poor-law Medical Officers' Association, fully concur in the resolutions adopted by the Joint Committee on State Medicine of the British Medical and Social Science Associations. We also beg to call attention to resolution No. 6, as we consider it would be an extreme hardship to impose further duties, without extra pay, on the already overworked and underpaid Medical officers."—Signed by "JOHN BRIDGER, Cottenham, Honorary Secretary of the Poor-law Medical Officers' Association for the county of Cambridge, and Medical Officer of the Seventh District of the Chesterton Union; and thirty-seven others."

THE LONDON HOSPITAL.

LETTER FROM MR. WALTER RIVINGTON.

[To the Editor of the Medical Times and Gazette.]

SIR,—For many years I have made it a rule not to notice personal attacks of an anonymous character. Let your correspondent manfully emerge from his obscurity, and by publishing his name afford us a guarantee of his good faith, and I will at once offer a reply to observations which at present must be regarded as worse than valueless. The deep interest which he evidently takes in his subject would then entitle him to an answer. I am, &c.,

WALTER RIVINGTON, M.S. Lond., F.R.C.S.,
Surgeon to the London Hospital.

MEDICAL OFFICERS OF HEALTH.

LETTER FROM DR. WOODWARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you kindly insert the following as the reasons why, in my opinion, Union Medical Officers should be appointed Deputy Medical Officers of Health:—

1st. Because they are already accustomed to render great service to the State for very small pecuniary profit.

2nd. Because they are called in to cases of epidemic diseases among the poor long before any other public official, and in many cases they alone are individually cognisant of the existence of such cases.

3rd. Because they are personally interested in reducing sickness and mortality in their heavily worked districts; and

Lastly. Because every street, alley, and cottage in the kingdom would be under inspection by an educated body of men already in working order, instead of a fresh staff being appointed.

I think I am quite within the mark when I state that any Union Medical Officer could, if vested with ordinary powers, reduce the sickness and mortality from epidemic and preventible diseases in his district by at least one-half within the first twelve months. I am, &c.,

Worcester, June 10. WM. WOODWARD, M.D.

PRACTITIONERS, CHEMISTS, AND CO-OPERATIVE STORES.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondents have drawn attention to the altered relations between the public, the general Practitioners, and the chemists, and have rightly pointed out that there are certain changes, brought about by altered circumstances, which we may grumble at, but must submit to. What the public want they will have, and if the general Practitioner can't supply it they will go to the chemist. But it is quite out of reason to suppose that there are no "morbid changes" affecting the chemist. He suffers in his turn from the same popular caprice. John Bull goes to the chemist to buy a remedy, as a trade transaction, in order thereby to escape paying for the advice or skill by which the remedy was suggested. The patient knows, and so does the chemist, that (say) ammonia is good for a headache; so why should he not buy an ammonia mixture at the chemist's for two shillings, instead of going to the general Practitioner to whom he would pay (say) three and sixpence, or five or seven shillings for the medicine *plus* Professional skill? But John Bull finds that what is sauce for the Practitioner will baste the chemist as well. His ammonia mixture consists of a few grains of ammonia, a little tincture of cardamoms, and some camphor water. The cost of these ingredients is small; anyone who knows the trick can make them up; so why pay the chemist two shillings for the medicine *plus* his professional skill? and why not go to a co-operative store, where mere drugs may be had at wholesale price, and prescriptions be made up at low rates, because it is not necessary to charge for a separate plant and establishment?

In fact, Mr. Editor, the chemists are beginning to feel the effects of these co-operative stores, and I sympathise with them, for it is a public calamity that professional and scientific skill should be discredited and abandoned by the public, whether it be the case of the chemist supplanting the Practitioner, or the co-operative grocer supplanting the well-educated pharmaceutical chemist. I am, &c., E.

London, June 5.

VOLUNTEER SURGEONS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have seen to-day the new regulations issued by the War Office respecting the duties, etc., of the auxiliary forces, under which are included volunteers. Under the head of "Volunteers" it is stated that the adjutant, the sergeant-major, and the instructors of any corps (being the permanent staff) are, together with their respective wives and families (with slight restrictions as to sons), entitled to the services of the Surgeon of their corps, who is to supply all necessary medicines; and that the Surgeon, complying with certain forms, is to be paid by the War Office, through the adjutant, at the rate of twopence per head per week. There is no restriction as to the nature or extent of the attendance, and, as the regulations stand, each member of the permanent staff can compel the attendance of the Surgeon on all occasions (including midwifery), who is to find all necessary medicines. The regulations mention the word "Surgeon" only, and do not name the Assistant-Surgeons; hence the former is responsible for the attendance, but he, in virtue of his rank, is in the position to command the services of his assistants; hence the whole Medical Volunteer Service is involved. Being Surgeon to a metropolitan corps, I find that I shall have eighteen persons thus placed under my care, for whom, whether ill or well, I can draw 3s. per week, which in the gross amounts to £7 18s. per annum. I need not say that this attendance on Government officials thus thrust upon me is not only unremunerative, but a dead loss to me, and the amount of remuneration offered simply an insult to the whole Profession. It behoves us all who hold Medical commissions to make some stand against the duties and the pay, or else to resign *en masse*—a course which I, for one, shall approach with much regret, since I have been long connected

with my corps, and have experienced and derived much pleasure from my intercourse and friendship with my brother officers. Surely Government cannot imagine for one moment that such a proposal can pass unchallenged, or that our Profession in the service will submit to be so called upon for such a paltry remuneration. For my part I have always been willing to render, and have rendered, service to my permanent staff; but I never anticipated that such service would be wrung from me under compulsion and under promise of a pay which is of itself so ridiculous and so insulting that, for one, if the regulations be insisted on, I must consult my own dignity, though with much unwillingness, by resigning my commission, trusting that all other Volunteer Medical Officers will follow my example.

The rest of the regulations as applied to Medical officers are fair and proper. I am, &c.,

A Volunteer Surgeon.

*** It will be seen in another column that a meeting of Volunteer Surgeons has been summoned to take the whole matter into consideration.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, May 1.

J. Braxton Hicks, M.D., F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—Michael Coote, M.D., Quebec; N. S. Kerr, M.D., Dunstable; Jos. McMonagle, M.D., St. John's, New Brunswick; W. K. McMudie, M.D., Portadown; F. D. Niblett, M.B., Hackney; and John Wallace, M.D., Liverpool.

Dr. Wynn Williams exhibited a large-sized Mucous Polypus he had removed from a patient who was seven months pregnant. The polypus protruded from the os uteri; it was ligatured and then cut off. Another small one was also removed by torsion, and the parts were swabbed with a saturated solution of tannin and spirits of wine, which completely arrested the slight bleeding.

Dr. Phillips referred to a similar case, in which, a few days previously, he had been induced to remove a muco-cellular polypus from the cervix at the sixth month of pregnancy on account of the hæmorrhage it caused. It seemed necessary in deciding the question of the removal of a polypus during pregnancy to take into consideration the amount of disturbance to which it gave rise; but, generally, he thought that abortion was less likely to be induced by the removal of a polypus hanging from the os uteri than by allowing it to remain.

Dr. Routh mentioned a case which he had seen in the country. He advised that labour should be brought on, and then the polypus removed to prevent the bleeding. Labour, however, came on spontaneously, and the polypus was apparently torn away during the passage of the child's head. He thought it quite safe to remove a polypus attached to the external os only; but to remove a polypus with a pedicle attached within the cervix he considered hazardous, and very likely to bring on a miscarriage.

Dr. Barnes exhibited for Dr. James Blake, of San Francisco, a modification of Hodge's Pessary, consisting in the substitution of watch-spring for the usual solid side bars. This modification gave elasticity to the pessary, which, whilst it increased its leverage action, diminished the risk of shock and concussion.

The President exhibited for Mr. Greaves, of Stafford, a large Growth from the Mouth of a Fœtus. (Referred to Dr. Black and Dr. Potter for a report.)

Dr. Worship, of Sevenoaks, showed a large Malformed Fœtus delivered by Craniotomy.

Dr. Godfrey, of Enfield, exhibited a Placenta with a very large Fibrinous Effusion, which, judging from the history of the case, was doubtless due to syphilis.

Dr. Madge said that other causes besides syphilis would produce a similar appearance, and that an examination of the placenta, apart from the patient's history, would hardly lead to the conclusion that its morbid condition was due to syphilis.

Dr. Brunton and Dr. Barnes referred to the distinctive characters of fatty and fibrinous degeneration. Dr. Barnes said that in the syphilitic placenta the albuminous or fibrinous effusion was uniformly distributed. There was, as Virchow said, hyperplasia.

Mr. Milward, of Cardiff, read an account of an Anencephalous Fœtus, and of another Malformed Fœtus, supposed to be due to maternal mental impression at an early period of pregnancy.

Dr. Newman read a paper (a sequel to one published in the Society's *Transactions* for 1867) on a case in which the Cæsarian Section was successfully performed, but in a subsequent pregnancy delivery was accomplished *per vias naturales*. The local conditions which obstructed labour in 1866 were believed to be due to malignant disease of the cervix uteri. In August, 1871, the patient presented herself, and she was found to be three months pregnant. The cervix felt hard, and there was a feeling of deep lines of hardness about the whole lower part of the uterus, but otherwise the parts were nearly natural. Pregnancy was allowed to go on to full term. The cervix was then dilated by Barnes's elastic bags, and the long forceps was applied to supplement ineffective uterine action. The child was born alive, and the mother's subsequent progress was uninterruptedly good.

Dr. Barnes said that when he saw the case there was no distinctive mark of malignant disease, only a cicatricial condition of the os uteri. The cure of extensive malignant disease was so rare, that a suggestion which had been made, that the disease was pelvic cellulitis, seemed worthy of observation. On the other hand, the uterus was movable, which was consistent with cancer affecting the cervix only, but hardly with cellulitis. Dr. Habit had related a case in which a mass of cancerous tissue was cast off by sloughing, and recovery with cicatricial atresia followed.

Dr. Playfair said that he had seen in Calcutta a case of labour in which the pelvic cavity was so blocked up with exudation, probably from pelvic cellulitis, that the Cæsarian section had to be performed. He thought that in Dr. Newman's case the condition was chronic inflammatory induration of the cervix.

Dr. Rogers described a case which he had recently attended. The patient was 40 years old, and in labour with her first child. After partial dilatation with the elastic bags, the cervix was so thick and rigid that it was necessary to scarify and carefully incise it. The dilator was reapplied, and the cervical ring gave way, tearing into irregular warty pieces. A live child was born, and the patient was doing well.

Dr. Routh referred to a case of malignant disease he had seen at Vienna, in which the cervix uteri was torn off as a hard ring by the child's head, and another case in which it was torn across, and death soon followed. In Dr. Newman's case the description given would apply to ordinary carcinoma, but it would also equally apply to a chancre, which might have become phagedænic. Hard cervices were frequently evidence, not of cancer, but of syphilis.

An abstract of a paper by the President, "On the Anatomy of the Human Placenta," was then read. The paper began by discussing the foundation of the sinus system as first propounded by John Hunter. It was shown how the injection he used would almost certainly produce an irruption of blood amongst the villi. The walls of the dilated vessels, as they ramify in the decidua serotina on its inner or ovular surface, are so very delicate that the force of the syringe, so unlike the action of nature, is nearly certain to break them down. A description of the arrangement and condition of the vessels formed a subsequent portion of the paper. The evidence of Goodsir and other observers was then reviewed. The second part of the paper proceeded to discuss the fact that blood being found amongst the villi after natural expulsion was no evidence in favour of or against a sinus system, because in the vast majority of placentæ naturally shed there are lacerations and denudations of the decidua serotina which would admit blood into the so-called cavity of the placenta. The author then argued that, the placenta being examined *in situ* without any injury whatever, if no blood be found among the villi, this was conclusive against the existence of a sinus system. Dissection of four specimens was given. In two not a trace of blood was found; in the other two there was a trace—in one of these the origin was clearly traced to a small clot extravasated among the villi, in the other to a laceration of the villi themselves. Further evidence was added, derived from three placentæ called "fatty"; in these, although the decidual vessels were highly distended with blood, yet the intervillal space was absolutely free. Disections of ova were given to show that at no time of pregnancy is there a trace of a transition state, which is assumed by some authors. The openings of the uterine glands can be observed to full term, no membrane passing over them on the ovular aspect of the decidua serotina, and the opaque tips of the villi are traceable without any

membrane over them till full term. The author quoted also the behaviour of hæmorrhage; for if the placental cavity were fed necessarily by blood from the mother's vessels, then any rupture into its cavity ought to be attended by severe and continuous loss, which is contrary to fact. A sinus system is proved by extra-uterine gestation not to be a necessity. In the uterus the existence of decidual processes with large sinuses in them brings the blood half-way through the placental thickness, and the peristaltic movements of the uterus would doubtless facilitate the exchange of elements.

Dr. Snow Beck said he had no doubt that the anatomy originally described by the Hunters and confirmed by subsequent anatomists was correct, and that there existed vascular communications between the uterine sinuses and the cells or great cavity of the placenta through which the maternal blood flowed. He denied that the openings apparent after the separation of the placenta are accidental lacerations. He undertook to show the openings which existed on the uterine surface of the placenta upon any recent placenta immersed in pure water.

Dr. Madge, on the other hand, said that, after working a great deal at the subject, he was convinced that the Hunterian doctrine respecting the utero-placental vessels was a mistaken one.

LEGAL INTELLIGENCE.

IMPORTANT DECISION.

MARYLEBONE COUNTY COURT.

(*Before* H. T. J. Macnamara, *Esq.*, *Judge.*)

Stevenson *v.* Gliddon.

The Medical Acts.—Right to Recover for Medicines Supplied.

This was an action brought by a Surgeon to recover fees, and for medicine supplied to the defendant. The case came on for hearing on April 10, and was then referred for arbitration to Mr. Bullock, an attorney, who disallowed the items in the claim for medicines. An application was then made to the judge by the plaintiff upon the point of law. On May 22 his Honour delivered the following judgment. After observing that the case was a most important one to the Medical Profession, he said: The plaintiff is a Member of the College of Surgeons in England, and is authorised to practise as a Physician by a diploma from the University of Edinburgh, but is not qualified as a Member of the Society of Apothecaries in London. He is registered under the Medical Act of 1858 as such Physician and Surgeon, but not as an apothecary. His bill contains charges for visits alone, for medicine alone, and for visits and medicine. The arbitrator disallowed the plaintiff's charges for medicine supplied alone, amounting to about £11, without advice or visits, on the ground that he could not recover for medicine supplied except as auxiliary to a Surgical case. It was admitted that this would have been so—at all events, in the case of an English Physician or Surgeon—prior to the Medical Act, 1858; but Section 31 of that Act was relied upon as having effected a change in that respect. Let us (said the judge), in order to arrive at a true construction of the statute, look at the state of the law at the time when it passed, and the mischief it was intended to remedy. The statute 55 Geo. III., c. 194 (Apothecaries' Act), enacts that persons practising as apothecaries without a certificate from the Society of Apothecaries of examination and qualification, shall be liable to penalties and disabled from recovering fees. That passed for the public good, and to ensure competency in that class of Medical Practitioners; but it was still found that unqualified persons practised. The Act of 1858 was intended to strengthen public security by requiring Medical Practitioners to be registered, so that unqualified persons might be prevented from practising. Registration under this Act is made evidence of qualification, but it is not substituted for it (see the preamble of the Act, and sections 4, 15, 18, 26, 30, and 32). Another object of section 31 is to enable Physicians to recover fees. Now, read section 31, and it is clear it is not intended to repeal the Act of Geo. III., or to allow those persons to practise as apothecaries who have not a certificate from the Society of Apothecaries, and who would be liable to penaltics. (Attorney-General *v.* Royal College of Physicians, 30 *Law Journal*, 757, Chancery; Wilcocks' "Treatise on Laws relating to Medical Practitioners;" Weightman's "Medical Practitioners' Legal Guide," 1870.) It was then contended, and evidence was given to show that a practice exists in Scotland for Physicians or Surgeons to act as apothecaries, but no satisfactory evidence was adduced as to the law of Scotland on this point. This, however, is immaterial, as a Medical Practitioner must be registered as an apothecary to practise as such in England. In the case of the Apothecaries' Company *v.* Collins (4 Barnewall and Adolphus, 604) it was expressly decided that a person authorised to practise as a Physician by a Scotch diploma was not exempt from the penalty for practising here as an apothecary without a certificate from the Society of Apothecaries.

Leave was given to apply for a case to the superior court if desired.

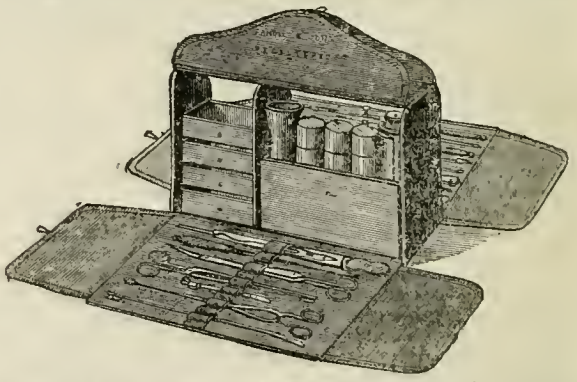
Mr. Macnamara, who has been only recently appointed to the County Court Bench, was long known in the legal profession as one of the most careful, painstaking, and experienced members of the bar. His decision will therefore carry much weight; but it will be observed that it does not affect the right of the Licentiates of the College of Physicians to practise pharmacy under their licences. The section 31 of the Medical Act relied upon by the plaintiff says that—"Every person registered under this Act shall be entitled, according to his qualification or qualifications, to practise Medicine or Surgery, or Medicine and Surgery, as the case may be, in any part of her Majesty's dominions, and to demand and recover in any court of law, with full costs of suit, reasonable charges for Professional aid, advice, and visits, and the cost of any medicines or other Medical or Surgical appliances rendered or supplied by him to his patients."

NEW INVENTIONS.

THE NEW GYNÆCOLOGICAL BAG (REGISTERED).

(*Arnold and Sons*, 35 *and* 36, *West Smithfield.*)

This bag, when closed, resembles an ordinary writing-case, or small portmanteau, of black morocco leather. Each side lets down, and reveals a centre compartment, which is a veritable apothecary's shop fitted with miniature drawers, bottles, etc. The lateral flaps contain loops and pockets for the reception of a great variety of instruments, which by this arrangement are



easily accessible. Such a bag, with due modifications, might be available for any department of practice—the Surgeon could carry in such a bag even the largest and weightiest instruments, together with chloroform, morphia, etc.; the accoucheur might take everything required in labour, ordinary or extraordinary; and, as in the present instance, the gynæcologist can take his formidable list of specula, forceps, scarificaters, caustic-holders, pessaries, uterine sounds, tents of sponge and laminaria, scissors, catheters, chloroform apparatus, suppositories, etc. The fact that Dr. Greenhalgh approves this bag will be taken as evidence of its completeness.

DUST-PROOF AND WASHABLE CARPETING, OR ASPHALTE SUPERFICIAL FLOORING.

(*G. P. Chiles and Co.*, 57, *Belmont-place, London, N.W.*)

Wanted, a material for covering the floors of offices, counting-houses, surgeries, etc., which shall be warm as Brussels carpet, without its dust, and cleanly as oilcloth, without its coldness. Such qualities are claimed by the inventors for the articles whose names we have given. The practical Physician is so well convinced of the mischief of stuffy, dirty, dusty old carpets, and of the still greater mischief of cold floors to persons engaged in indoor occupations—schools, and the like—that he will be induced to see whether the promises of the asphalte carpeting are justified by experience.

OBITUARY.

WILLIAM SETH GILL, L.R.C.P.E., M.R.C.S., L.S.A.,

Was born at Sandgate, Kent, and was the son of a respected Medical Practitioner there. Nearly fifty years since he commenced practice at Liddon, Norfolk, subsequently removed to Peckham, and later still to Pentonville, where he practised for nearly forty years. He early saw the advantage of imparting useful knowledge to the masses, and lectured on electricity (then in its infancy) nearly half a century ago. He was for many years Medical Officer to the Clerkenwell district. Among his contributions to Medical literature were articles "On Placenta Prævia," and "On the Action of Secale Cornutum." He died on May 31, at White Lion-street, Pentonville, aged 72, deeply regretted. His was an earnest and useful though laborious life, and within a few weeks of his death he was still engaged in the active duties of his Profession.

JOSEPH HUTCHINSON, M.R.C.S., ETC.,

Died on the 28th ult., aged 63. He lost his father in 1830 from cholera, while studying Medicine at St. Thomas's Hospital School. He was the pupil of the late Dr. Camplin, of Islington, author of a work on "Diabetics." He became L.S.A. in 1833, M.R.C.S. in 1834, and F.R.C.S. by examination in 1846. He commenced practice at Cheetham Hill, near Manchester, where he continued for a period of thirty-eight years, and till within a few days of his death, with great success. He was for many years a Medical Officer of the Union; was kind, attentive, and conscientious towards his patients; upright and honourable in all his dealings. He paid special attention to obstetric practice, and was the inventor of a speculum. His skill in this branch of our art was widely known and appreciated. He was Medical referee to several insurance societies.

MEDICAL NEWS.

Royal College of Surgeons.—The following Members of the College having undergone the necessary examinations for the Fellowship at the half-yearly meetings terminating on the 25th ultimo, were reported to have acquitted themselves to the satisfaction of the Court of Examiners, and, at a meeting of the Council on Thursday, the 13th inst., were admitted Fellows of the College, viz.:—

Cumberbatch, Alphonso Elkin, M.B. Lond., the College of St. Bartholomew's, diploma of Membership dated January 25, 1870, student of St. Bartholomew's Hospital.
Durham, Frederic, M.B. Lond., Northampton, November 16, 1869, of Guy's Hospital.
Elliott, Arthur Bowes, L.R.C.P. Lond. and L.S.A., Bartlett's-buildings, Holborn, April 25, 1867, of Guy's Hospital.
Evans, George Harrison, M.B. Edin., Hagley-road, Birmingham, April 22, 1868, of St. Bartholomew's Hospital.
Goodsall, David Henry, L.R.C.P. Lond., Finsbury-square, May 19, 1868, of St. Bartholomew's Hospital.
Harvey, William, L.S.A., H.M. Indian Army, January 29, 1862, of the Charing-cross Hospital.
Joubert, Charles Henry, M.B. Lond., Royal Victoria Hospital, Netley, Southampton, May 5, 1868, of St. Mary's Hospital.
Railton, Thomas Carleton, Manchester, January 20, 1869, of the Manchester School.
Sympson, Thomas, L.R.C.P. Edin. and L.S.A., Lincoln, July 26, 1847, of St. Bartholomew's Hospital.
Wells, John Soelberg, M.D. Edin., Savile-row, December 21, 1860, of King's College.

Six candidates having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their Professional studies for twelve months.

The annual meeting of Fellows for election into the Council of the College will take place on Thursday, the 4th proximo, when Messrs. Henry Hancock, of the Charing-cross Hospital, Hunterian Orator, and Thomas Blizard Curling, F.R.S., of the London Hospital, Vice-Presidents of the College, the retiring Members of Council, will offer themselves for re-election, and the vacancy caused by the death of Mr. Samuel Solly will be filled.

Collegiate Elections.—The annual meeting of the Fellows of the College for election into the Council will be held on Thursday, the 4th proximo, when Messrs. Henry Hancock, of the Charing-cross Hospital, and Thomas Blizard Curling, of the London Hospital, the Vice-Presidents of the College, who retire in rotation, will deservedly be re-elected; and as on Monday evening last, at twelve o'clock, Mr. Barnard Wight Holt, of the Westminster Hospital, was the only candidate nominated, it will be, to use a sporting term, "a walk over the course" for these three gentlemen, showing how highly they are esteemed by the Fellows generally. The names of three probable starters were mentioned, but they either declined coming forward on the present occasion, or were too late in their application. Sir William Fergusson, Bart., F.R.S., late President of the College, has consented to take the chair the same evening at the annual festival of the Fellows of the College. We are requested to state that tickets may be obtained of Mr. T. Carr Jackson, F.R.C.S., the Honorary Secretary.

At a meeting of the Council of the College on Thursday, the 13th inst., the following members having been elected Fellows at previous meetings of the Council, were admitted as such, viz.:—

Allen, Robert Marshall, of Welborne Hall, Grantham, Lincolnshire (retired), diploma of Membership dated June 26, 1840.
Weekes, Henry, of Barnstaple, North Devon, July 1, 1836.

This was an adjourned meeting for the further consideration of the recommendations of the conjoint Committee of the Colleges of Physicians and Surgeons on the mode of carrying out the scheme for an Examining Board for England, and for discussing Mr. Charles Hawkins's motion, "That the four representatives of Surgery appointed by the Council as members of the Committee of Reference be selected from the present or past members of this Council," when the following gentlemen were elected, viz.:—Sir William Fergusson, Bart., F.R.S.; Sir James Paget, Bart., F.R.S.; George Busk, Esq., President of Royal College of Surgeons, F.R.S.; Richard Quain, F.R.S.

Collegiate Examinations.—The half-yearly examination in Arts, etc., for the diplomas of Fellowship and Membership of the Royal College of Surgeons will take place on Tuesday, the 18th instant, and following days, at the University of London, Burlington-gardens, and be conducted, as usual, by a staff of the College of Preceptors under the superintendence of Dr. Jacobs. It is stated that there are as many as 370 candidates—viz., 109 for the Fellowship, and 261 for the Membership. It may save the candidates some trouble by informing them that, owing to the large number of papers on so many various subjects to be read by the examiners, the result cannot be known for several weeks.

Apothecaries' Hall. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, June 6:—

Anderson, William Henry, Theddlethorpe.
Dixon, Thomas James, South Africa.
Dobson, Joseph, Leeds.
Edwards, Alfred, Scilly Isles.
Gerrard, William Arthur, Ticknall, Derby.
Greaves, Frank, Bishops Waltham.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Chicken, Rupert Cecil, M.R.C.S.—Registrar to the Evelina Hospital for Sick Children, Southwark-bridge-road.

Clouting, John Revett, M.R.C.S.E. and L.S.A.L.—Medical Officer to No. 1 Medical District, Ongar Union.

Courtney, David, M.R.C.P. Edin. and M.R.C.S. Ire.—Medical Officer for the Workhouse, Amersham, Bucks.

M'Calman, Hugh, M.B., C.M.—Parochial Medical Officer for Eddrachillis and Durness, Sutherlandshire.

Roberts, W. L., M.R.C.S. Eng., L.S.A.—Senior House-Surgeon to the Bradford Infirmary, *vice* Dr. Robagliati, resigned.

Rochfort, Hudson H., L.K.Q.C.P.I., L.M., L.R.C.S.I.—Surgeon to the Odd-Fellows Medical Aid Association, Newport, Mon., *vice* Wasdale Watson, M.R.C.S. Eng. and L.A.C. Lond., resigned.

Souttea, M. C., M.R.C.S. Eng.—Surgeon to the Islington and North London Provident Dispensary, Hornsey-road, N.

NAVAL AND MILITARY APPOINTMENTS.

Medical Department.—Alexander Fisher, M.D., has been promoted to the rank of Staff Surgeon in her Majesty's Fleet, with seniority of May 24, 1872.

Medical Department.—Surgeon-Major James Fraser, M.D., from the 50th Foot, to be Staff Surgeon-Major, *vice* Staff Surgeon Nicholas Ffolliott, appointed to the 50th Foot; Staff Assistant-Surgeon Alexander Crombie, M.D., resigns his commission.

BIRTHS.

Brickwell.—On May 25, at Stacey-place, Slough, the wife of John Brickwell, M.R.C.S. Eng., L.S.A., of a son.

Scott.—On June 11, at Glyn Abbot, Holywell, the wife of R. R. Scott, Staff Surgeon, of a daughter.

Shillitoe.—On June 5, at Birch Mount, Sydenham-hill, the wife of Buxton Shillitoe, F.R.C.S., of a son.

STRANGE.—On June 1, at 13, Belsize-avenue, Hampstead, the wife of W. Heath Strange, M.D., of a son.

WHITMARSH.—On June 6, at Albemarle House, Hounslow, the wife of William Michael Whitmarsh, M.D., of a son.

WRIGHT.—On May 31, at Edinburgh, the wife of Surgeon Thomas Wright, of H.M.'s 93rd Highlanders, of twin daughters.

MARRIAGES.

AIRY—LANGTON.—On June 5, at St. John's, Keswick, Battersby Hubert Airy, M.D., second son of G. B. Airy, Esq., C.B., Astronomer Royal, to Susan Cecilia, youngest daughter of S. Z. Langton, Esq., of Barrow House, Keswick.

ANDREWS—CORBET.—On May 28, at Orsett, Essex, Thomas Corbitt Andrews, to Marion, elder daughter of the late David Corbet, M.D.

CALTHROP—THOMAS.—On May 4, at Kurnal, Punjaub, India, Christopher William Calthrop, M.D., Professor of Anatomy and Materia Medica, Lahore Medical College, to Honor Cary, eldest daughter of R. W. Thomas, Esq., Deputy Commissioner, Kurnal.

COLLINS—JEUNE.—On June 6, at St. Mary's Church, West Horsley, Surrey, John C. Collins, M.D., Bengal Medical Service, to Augusta C., eldest surviving daughter of the late Col. T. S. H. Weston, C.B., Bengal Army, of West Hornley-place, and widow of Lieut. F. A. Jeune, Bengal Army.

CUTCLIFFE—PRICE.—On May 18, at Calcutta, Henry Charles Cutcliffe, M.D., to Louisa Mary, second daughter of Spencer Cosey Price, Esq.

GLANVILLE—CARTWRIGHT.—On June 6, at the parish church, Bradfield St. George, Usher Glanville Doyle Glanville, M.D., Spring-grove, Isleworth, to Edith Adeline, youngest daughter of the Rev. J. C. Cartwright, rector of Bradfield St. George.

LORIMER—LORIMER.—On June 11, at 9, Dryden-place, Edinburgh, John Archibald Lorimer, L.R.C.P. Lond., of Farnham, Surrey, son of the Rev. Professor Lorimer, D.D., to Harriett Annie, eldest daughter of James Lorimer, Esq., C.E.

OLIVER—HUNT.—On June 8, at St. Mary's Church, Barnard Castle, George Oliver, M.D., of Coatham, Yorkshire, to Alice Mary, daughter of John Hunt, Esq., of Barnard Castle, Durham.

READ—CORBETT.—On June 8, at Christ Church, Ealing, Reginald Read, F.R.C.P.E., Guildford-place, Russell-square, W.C., to Anna Maria, eldest daughter of George Corbett, Esq.

SKAIFE—PLATT.—On June 4, at the parish church, Brighton, John Skaife, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., of Northampton-square, London, to Isabel Annette, daughter of the late Samuel Platt, D.L., of Belmont, Surrey, and 10, Hyde-park-gardens, W.

STRONG—OWEN.—On June 1, at All Saints' Church, Upper Norwood, Henry John Strong, M.D., of North-end, Croydon, to Elizabeth Ann, widow of Henry James Owen, and second daughter of the late Charles Brooks Teague, of The Lodge, South Lambeth, and Brighton.

THORNTON—CAUDLE.—On June 5, at St. Peter's Church, Henfield, Sussex, William West, third son of the late Thomas Thornton, of Brixton-hill, to Annie Homewood, third daughter of the late Adolphus Caudle, M.R.C.S. Eng., L.S.A., of Henfield.

DEATHS.

DICKSON, CHARLES FREDERICK LINDSAY, son of Lindsay F. Dickson, M.D., Bengal Army, at Jubbulpore, on May 12, aged 8 months.

DICKSON, JOHN, M.D., Medical Superintendent of the Government Lunatic Asylum, Port Louis, late of Dumfries, Scotland, at Port Louis, Mauritius, of malarious fever, on April 20.

LESTER, MARGARET HEARD, widow of the late Dr. C. S. Lester, R.N., at 13, Westbourne-park-villas, on June 9, aged 44.

MACDONNELL, J. W., M.D., eldest son of the late William Macdonnell, Esq., of Landsdown-place, Dublin, at Dublin, on June 3, aged 42.

ROY, MARY, wife of Henry Roy, M.D., and youngest daughter of the late James Steele, Tranent, East Lothian, at 20, Claremont-square, on June 4.

RUSSALL, JAMES QUILTER, M.R.C.S.E., L.S.A., late of Harpenden Hall, at The Limes, Harpenden, Herts, on June 4, aged 77.

SMITH, FANNY MATILDA MARY, the beloved eldest daughter of Septimus William Smith, L.F.P.S. Glasg., L.M., Surrey Villa, Kennington-road, on June 7, aged 7 years and 5 months.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

ADDENBROOKE'S HOSPITAL, CAMBRIDGE.—House-Physician and House-Surgeon. Candidates must be duly qualified. Applications with testimonials to the Secretary, 60, St. Andrew's-street, Cambridge, before June 19.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—Resident Medical Officer and Secretary. Candidates must be duly qualified. Applications with testimonials to Arthur Chamberlain, Esq., Hon. Secretary, 8, The Crescent, Birmingham, on or before July 15.

DERBYSHIRE GENERAL INFIRMARY.—Assistant House-Surgeon. Candidates must be duly qualified. Also, a properly qualified Dispenser. Applications, with testimonials, to the Secretary, Samuel Whitaker, Infirmary, Derby, on or before June 15.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, RATCLIFFE-CROSS.—Visiting Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London, or F.R.C.P. Edinburgh or Dublin, or Graduates in Medicine of a British University, or of the Universities of Paris, Vienna, Berlin, or other universities approved by the General Medical Council, and be legally qualified to practise Medicine in England. Applications to be sent to the Secretary, at the Hospital, before June 17.

ESSEX LUNATIC ASYLUM, BRENTWOOD.—Second Assistant Medical Officer and Dispenser. Candidates must be Licentiates of the Apothecaries' Company and possess a Surgical qualification. Applications, stating former occupation, to Dr. Campbell, Medical Superintendent, County Asylum, Brentwood.

GLOUCESTER DISPENSARY.—Dispenser, registered under the Pharmacy Act, and otherwise duly qualified. Apply to George Whitcombe, Esq., Gloucester, from whom further particulars may be obtained.

GLOUCESTER INFIRMARY.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin. Applications, with testimonials, to T. H. Pitre, Secretary, on or before July 4.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Assistant-Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London. Applications, with testimonials, to Samuel Whitford, Secretary, on or before June 26. Also, Medical Registrar. Candidates must possess some legal qualifications. Applications as above.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon. Candidates must possess a Medical and a Surgical qualification from one or more British Colleges or Institutions recognised under the Medical Act. Applications and testimonials to the Chairman of the Committee not later than June 15.

MIDDLESEX HOSPITAL.—Lectureship on Psychological Medicine. Applications must be sent to the Dean of the Hospital not later than June 18.

NORTH SURREY SCHOOL DISTRICT, ANERLEY, NORWOOD, S.E.—Medical Officer. Candidates must possess the qualification required by the Local Government Board. Applications, with testimonials, to "the Managers," at the School, on or before June 17.

SEAMEN'S HOSPITAL, GREENWICH.—House-Physician. Candidates must possess at least one qualification. Applications, with testimonials, to Kemball Cook, House-Governor and Secretary, on or before June 22.

YORK COUNTY HOSPITAL.—Non-resident Dispenser. Applications, with testimonials, to Robert Holtby, Secretary, 5, New-street, York, on or before June 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Glendale Union.—The Ford District is vacant; area 11,727; population 2072; salary £10 per annum.

Mere Union.—Mr. Charles Rumsey has resigned the Workhouse; salary £10 per annum.

APPOINTMENTS.

Belper Union.—Thurstan Forshaw, L.R.C.P. Edin., L.S.A. Lond., to the Smalley District.

Bideford Union.—John Thompson, F.R.C.S. and M.R.C.S. Eng., L.S.A., M.D. St. And., to the Buckland Brewer District. Edgar Cox, M.R.C.S. Eng., L.S.A., to the Abbotsham District.

Dudley Union.—Hugh R. Ker, M.R.C.S. Eng., L.R.C.P. Edin., to the Second District.

Glandford Brigg Union.—Walter H. Paterson, M.D. and C.M. Univ. Edin., M.R.C.S. Eng., L.S.A., to the Broughton District.

Malton Union.—George Buckell, M.R.C.S. Eng., L.S.A., to the Leavening District.

Newcastle-upon-Tyne Union.—Thos. F. May, L.F.P. and S. Glasg., L.S.A., to the Seventh District.

Stokesley Union.—Andrew A. Boyle, L.R.C.P. Edin., L.R.C.S. Edin., to the Hutton District.

DR. MEADOWS has been elected a Corresponding Member of the Imperial Medical Society of Vilna.

THE yellow fever is declining in Monte Video. There are no new cases, and confidence is returning.

UNIVERSITY OF CAMBRIDGE.—Pembroke College Lodge, June 10, 1872.—The Vice-Chancellor gives notice that the election of a Representative of Medicine, and of a Representative of Surgery, on the Examining Board for England, in accordance with Regulation 6 of the scheme approved on February 15, 1872, will take place on Friday, the 14th inst. The Vice-Chancellor and Proctors will attend in the Senate-House between the hours of 12 noon and 1 p.m., in order to receive the votes of members of the Senate.

KING'S COLLEGE HOSPITAL.—On Friday the festival of King's College Hospital took place at Willis's Rooms. General Sir Henry Daubeney presided. Since the opening of the Hospital in 1840 there have been 44,972 patients, and 821,658 out-patients; total, 866,630. The chairman stated that the expenses of the Hospital had been so great that the Council had been obliged to draw upon the funded property. During last year the assessment of the Hospital had been increased by the authorities from £860 to £1000 per annum, and the very uniforms of the hall-porters had now been taxed. An amateur dramatic performance under distinguished patronage will be given by the students of King's College, on behalf of this Hospital, early in July. Further particulars will be shortly announced.

MASONIC FEMALE ORPHAN SCHOOL, DUBLIN.—At a meeting of the Board of Governors, held on Tuesday the 4th inst., Dr. J. T. Banks was elected Consulting Physician, and Dr. George H. Kidd was appointed to the vacancy caused by the death of Dr. T. E. Beatty, for eleven years senior Medical Officer of the School.

THE sanitary condition of St. Mary, Islington, for May, 1872, was satisfactory. The total number of deaths registered in the parish during the four weeks ending May 25 was considerably less than the number for the corresponding four weeks in either of the last nine years, with the single exception of 1867. Along with the diminution in the death-rate from zymotic diseases, we find a remarkable diminution also in the number of deaths from diseases of the respiratory organs.

AT the Dublin Police-court, last week, Charles Hammond and William Bailey, privates in the Army Hospital Corps, were brought up on remand charged with having caused the death of Edward Somerton, a private in the 68th Regiment, by cruelly ill-treating him. A private of the 4th Regiment deposed to having seen the prisoners, who were attendants in the lunatic asylum of the Military Hospital, put the deceased in a cold bath contrary to strict orders, and keep him there for a long time, and cruelly ill-use him so as to cause his death. The prisoners were committed for trial for murder.

THE value of the injection of ammonia, as recommended by Professor Halford, in cases of snake-bite and suspended animation, has been again demonstrated. A lady in Melbourne recently swallowed by accident an ounce of Brown's chlorodyne, which is a mixture of chloroform, morphia, and prussic acid. When seen by her Medical attendant, she was, as he imagined, on the point of death—cold, insensible to everything, and giving only occasional gasps as signs of breathing. Recollecting a former case in which a young man who had taken chloroform was revived after death had apparently occurred, the Doctor mixed half a drachm of the liq. ammon. fort. with one and a half of water, and within the space of one minute injected the whole into a vein of the arm. In a few minutes the pulse returned, the breathing became natural, and by twenty minutes the whole body had regained its natural warmth; but perfect consciousness did not return for some hours afterwards. The patient made a rapid recovery. Two further instances have also been reported in which the timely use of the injection saved the victims of snake-bite from the death which threatened them.—*Melbourne Argus.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

The Moniteur Scientifique can be obtained, by giving a few days' notice, from Messrs. Baillière, Tindall, and Cox, 20, King William-street, Strand.

Two Readers.—We do not doubt your title by courtesy and custom to assume whichever of the denominations may please you best; but as a matter of policy we should recommend the second. With that there is nothing of "false position"—nothing that an enemy could call in question, however unjustly; and it is always best to adopt that course which renders explanation unnecessary.

An Indian Surgeon.—There was a meeting of the Council for the admission of Fellows on Thursday last; you will therefore not be able to record your vote for the candidates, but can attend the festival the same evening by writing to Mr. T. Carr Jackson, F.R.C.S., the hon. secretary.

B. S., King's College.—Mr. Headington, of the London Hospital, died when President of the College of Surgeons. Mr. Cooke, in his interesting life of Sir William Blizard, states that on one occasion when going through the wards with the venerable Surgeon, he inquired of a student what was going forward in the operating-theatre. The young gentleman replied—"Mr. Headington, Sir William, is operating in a case of strangulated hernia, but the gut is quite rotten." He pleasantly remarked: "Pray, sir, do not call it *gut*, or say it is *rotten*, or you will be taken for n butcher; but call it *intestine*, and say it is *gangrenous*." Sir William Blizard and Sir Charles Blicke, his colleague at the College of Surgeons, were what were then called "Peg Nicholson's knights," having received the honour of knighthood from George III., at the Court of St. James's, March 16, 1803, for taking addresses of congratulation on the happy escape from the madwoman's dagger.

NEW PLAN OF EXTRACTING BODIES FROM THE EAR.

Dr. Loewenberg, of Paris, describes a new plan for extracting solid bodies from the ear, as follows:—"A very small brush is made by rolling and fixing a narrow strip of old linen around a thin wooden handle (a match, for instance), and unravelling its free border to the length of a quarter of an inch. The end of the so-obtained fringe is dipped into a warm and very concentrated solution of glue, applied to the visible part of the foreign body—or rather the operator leans it against the body by letting it glide very softly, and without exercising any pressure, over it. Previous to the application the patient seats himself comfortably in an arm-chair or on a sofa, and inclines his head towards the healthy ear. He remains in this posture for three-quarters of an hour to an hour after the introduction of the agglutinated brush. This time past, consolidation is generally accomplished, and the foreign body can be extracted by gentle pulling at the brush."

A Fellow.—The usual notices of the election were duly posted to all the Fellows of the College whose addresses were known to the secretary. That you have not received one is no fault of that gentleman's, as on inquiry we find that your letter was returned through the Dead Letter-office endorsed, "Gone away—address not known."

M.R.C.S.—The rumour has reached us. If the *clique* again attempt to injure the College they will again be defeated.

Ireland.—Nothing can show more strikingly the difficulty of dealing with the question of drunkenness than a habit lately sprung up in Ireland of drinking naphtha and methylated spirits for the purpose of intoxication. It would seem in this matter, as in most others, the old adage is applicable—"Where there's a will there's a way."

M.D. Edin.—We have seen the decision of Mr. Macnamara in the case of Stevenson *v.* Gliddon, in which he ruled that the plaintiff, M.D. of Edin. and M.R.C.S. Eng., could not legally charge for medicine supplied in a Medical case, inasmuch as he was not a Licentiate of the Apothecaries' Society of London. His Honour said that the Apothecaries' Act was not repealed by the Act of 1858, and as the plaintiff was registered as a Physician and Surgeon, and not as an Apothecary, he could not recover his charges for medicines. Of course the decision of the judge is not final, and is certainly open to grave doubt. A "case," we hope, will be submitted to a superior court to determine the question finally.

WILKS, *not* WELLS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Will you kindly favour me by stating in the next number of the *Medical Times and Gazette* that the name of Dr. Wells inserted in the abstract report of Sir William Gull and Dr. Sutton's paper was a misprint. It should have been—"Dr. Wilks, in 1853, suggested that the cardiac hypertrophy might be dependent on atheromatous changes in the vessels." By so doing you will greatly oblige, Yours, &c.,

9, Finsbury-square, June 11. H. G. SUTTON.

W. C., Bodmin.—The Rev. George Crabbe, the celebrated poet, was apprenticed to Mr. Page, a Surgeon at Woodbridge, a market town seventeen miles from Aldborough, where he was born.

Archæologist, Birmingham.—The tables to which you allude are in the Museum of the Royal College of Surgeons. Professor Flower appears fully aware of their value, for he has had them lately thoroughly cleaned, varnished, and covered with plate glass. The amusing Evelyn mentions a curious circumstance with regard to Sir Charles Scarborough, who read the lecture founded by Dr. Caldwell at Barber-Surgeons' Hall, and who delivered lectures on mathematics at Cambridge, whose epitaph records that he was

"Inter Medicos Hippocrates,
Inter Mathematicos Euclides."

Evelyn's diary records that "My Italian collection being now arrived, came Meulins ye great Chirurgeon to see and admire ye Tables of Veines and Arteries which I purchased and caused to be drawne out of several humane bodies at Padua"; and November 5, 1652—"Dr. Scarborough was instant with me to give theso Tables to ye College of Physicians, pretending he would not onely reade upon them, but celebrate my curiositie as being the first who caused them to be completed in that manner and with that cost; but I was not so willing yet to part with them as to lend them to ye College."

QUERY AS TO THE VITAL PRINCIPLE.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In cogitating over the various formulæ by which different scientific men endeavour to enunciate their conception of the forces that rule the living body, one is met with this difficulty:—Many diseases are attended by, or caused by, what great authorities call a great development of vitality. For instance, a late Surgical writer affirmed the cause of cancer to be a great abnormal residual quantity of vitality in certain organs—say womb or mamma—from which it happened that when the normal and ordinary growth and functions of those organs were diminished at the decline of life, the vitality, not having anything useful or regular to do, set to work to engender that abnormal and perishable tissue called "cancer." Dr. Beale, in his "Disease Germs," speaks of tissues "living too fast," and describes some inflammatory processes as overgrowths of the "germinal matter" of tissues, owing to their getting an excessive supply of *pabulum* in consequence of injury. Thus, it is evident that there is a local vitality inherent in each minutest part—such that one pus-corpuscle lodging in an appropriate seat can increase and multiply almost *ad infinitum*. But if the animal and vegetable body be such an aggregation of petty powers, there surely must be some general supervising vital principle to control them—something that shall direct the size, form, length of life, and properties of the whole organism. And the necessity of conceiving so many conflicting vital principles may, it seems to me, be used as an argument against the existence of any. I am, &c., STUDENS.

Defence of the Study of the Classics.—The Rede Lecture in the Senate House of Cambridge was delivered this year by Mr. Edward A. Freeman, D.C.L., of Oxford. The subject was the "Unity of History." In the concluding sentences of an admirable lecture he thus defended the study of Greek and Roman history and literature from the attacks of Mr. Lowe and his imitators:—

"The fashion of the day, by a not unnatural reaction, seems to be turning against ancient and classical learning altogether. We are asked, what is the use of learning languages which are dead, what is the use of studying the records of times which have for ever passed away? Men who call themselves statesmen and historians are not ashamed to run up and down the land spreading abroad, wherever such assertions will win them a cheer, the daring falsehood that such studies, and no others, form the sole business of our ancient Universities. They ask in their pitiful

shallowness the utility of poring over the history of 'petty states,' of studying battles in which so few men were killed as on the field of Marathon. He need not stop to answer such transparent fallacies, but the use of such falsehoods and fallacies were signs of the times they could not afford to neglect. The answer was in their own hands. So long as the languages and histories of Greece and Rome were treated as something special and mysterious—something to be set apart from all other studies—something to be approached and handled in some peculiar method, the Universities were playing into the hands of the enemy. As long as we have classical instead of general schools of languages—schools of modern history instead of general schools of history—as long as the distinction implied in the words classical and ancient is recognised, we are acknowledging that, if not our whole attention, yet a chief share of it, is given to subjects which do stand apart from ourselves, cut off from all bearing on the intellect and life of modern days. The answer to such charges is to break down the barrier—to forget, if possible, the whole line of thought implied in the distinctions of ancient, classical, and modern; to proclaim boldly that no languages are more truly living than those which are falsely called dead; that no portions of history are more truly 'modern,' more full of practical lessons for our political and social state than the history of the times which in mere physical distance we look upon as ancient. If men ask whether French and German are not more useful languages than Latin and Greek, let us answer that in a direct manner of parentage and birth it is an imperfect knowledge of French which takes no heed to the steps by which it grows out of Latin, and that it is an imperfect knowledge of Latin which takes no heed to the steps by which it grew into French. As to the use of studying the history of petty states, the answer is that moral and intellectual greatness is not always measured by physical vigour; that the smallness of a state of itself heightens and quickens the power of its citizens, and makes the history of a small community a more instructive lesson of politics than the history of a huge empire. In this way we can make answer to gainsayers, and convince the unlearned and unbelieving that our studies are not vain gropings into what is dead and gone. Let us carry about with us the thought that the tongue which we still speak is, in truth, one with the tongue of Homer; that the Ecclesia of Athens, the Comitia of Rome, and the Parliament of England are all offshoots from one common stock; that Licinius and Simon of Montfort were fellow-workers in one common cause. Let all this be to us a living thought as we read the records either of the earlier or the later time, and we shall find that the studies of our youthful days will still keep an honoured place among the studies of later life; that the heroes of ancient legend, the worthies of ancient history lose not, but rather gain in true dignity by being made the objects of a reasonable homage instead of an exclusive superstition."

COMMUNICATIONS have been received from—

Mr. J. Earle; Mr. R. E. Power; Mr. Soutter; Mrs. Gill; Mr. J. Hutchinson; Dr. Tilt; Mr. D. Campbell; Two Readers; Mr. Vincent Richards; A. S. B.; Dr. Woodward; Mr. Verkrüzen; Dr. Sutton; Mr. Wasdale Watson; Dr. Fowler; Mr. Rivington; Dr. Joseph Rogers; Mr. Hemming; Mr. Collins; Mr. Morris; Mr. J. Colville; Mr. Teevan; Professor Spence; Mr. J. Chatto; Dr. Morell-Mackenzie; Mr. Plaxton.

BOOKS RECEIVED—

Annual Report of the Queen's Hospital, Birmingham—The Pharmacopœia of the Hospital for Diseases of the Throat, edited by Morell-Mackenzie, M.D.—Report of the Belfast District Hospital for the Insane—The Medical Wants of Potteries and Neighbourhood, by Dr. Charles Orton—Dress and Care of the Feet—On Sea-sickness, by Colomanus de Rochlitz, M.D.—Lettsomian Lectures on Diseases of the Liver, by S. O. Habershon, M.D., F.R.C.P.—Contributions to Molecular Physics in the Domain of Radiant Heat, by John Tyndall, LL.D., F.R.S.

PERIODICALS AND NEWSPAPERS RECEIVED—

Monthly Microscopical Journal—Science Gossip—Food, Water, and Air—Cope's Tobacco Plant—Edinburgh Medical Journal—Philadelphia Medical Times—Medical Press—Journal of Anatomy and Physiology—Practitioner—Journal of the Gynæcological Society—The Irish Times—Melbourne Argus—Birmingham Daily Post—Madras Monthly Journal of Medical Science—Manchester Courier.

APPOINTMENTS FOR THE WEEK.

June 15. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

17. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Anthropological Institute, 8 p.m. Meeting.

18. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

19. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

20. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

21. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 8, 1872.

BIRTHS.

Births of Boys, 1118; Girls, 1084; Total, 2202.
Average of 10 corresponding weeks, 1862-71, 1955·3.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	673	616	1289
Average of the ten years 1862-71	647·4	608·9	1256·3
Average corrected to increased population	...	...	1382
Deaths of people aged 80 and upwards	...	...	42

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	1	5	...	...	8	...	4	3	4
North ...	751688	7	9	6	...	12	6	2	...	6
Central ...	333887	1	6	3	1	16	1	3	1	2
East	638928	6	5	1	2	14	...	5	2	3
South	966132	12	14	8	1	13	1	4	1	9
Total	3251804	27	39	18	4	63	8	18	7	24

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·691 in.
Mean temperature	52·6°
Highest point of thermometer	72·1°
Lowest point of thermometer	40·6°
Mean dew-point temperature	47·3°
General direction of wind	Westerly
Whole amount of rain in the week	0·77 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 8, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending June 8.	Deaths Registered during the week ending June 8.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311293	42·1	2202	1289	72·1	40·6	52·6	11·44	0·77	1·96
Portsmouth ...	115455	12·1	63	52	64·8	38·4	52·5	11·39	1·05	2·67
Norwich	81105	10·9	58	32	71·2	40·0	52·4	11·33	0·91	2·39
Bristol	186428	39·8	121	74	57·5	41·9	48·2	9·00	...	...
Wolverhampton ...	69268	20·5	65	25	63·4	36·7	59·3	9·61	1·27	3·23
Birmingham ...	350164	44·7	271	123	63·3	38·2	50·2	10·06	1·50	3·81
Leicester ...	99143	31·0	72	66	70·7	36·7	51·5	10·83	1·15	2·92
Nottingham ...	88225	44·2	55	30	72·0	37·2	53·4	11·89	1·10	2·79
Liverpool	499897	97·9	371	260	60·1	38·1	49·8	9·89	0·85	2·16
Manchester ...	352759	78·6	294	179	...	...	...	...	...	...
Salford	127923	24·7	102	54	63·3	33·3	49·1	9·50	1·05	2·67
Oldham	84004	20·2	53	40	...	...	...	...	...	...
Bradford	151720	23·0	130	85	65·2	41·4	51·9	11·06	1·04	2·64
Leeds	266564	12·4	247	116	64·0	39·0	50·8	10·44	1·43	3·63
Sheffield	247847	10·9	174	129	64·5	37·5	49·3	9·61	1·09	2·77
Hull	124976	35·1	86	43	70·0	40·0	52·5	11·39	0·52	1·32
Sunderland ...	100665	30·4	102	45	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	114	58	61·0	42·0	49·9	9·94	0·75	1·90
Edinburgh	205146	46·3	149	85	64·0	...	...	...	1·00	2·54
Glasgow	489136	94·8	403	269	62·1	41·0	51·3	10·72	1·70	4·32
Dublin	310565	31·9	192	236	63·4	38·0	51·7	10·94	0·64	1·63
Total of 21 Towns in United Kingd'm	7393052	34·0	5327	3290	72·1	33·3	51·0	10·56	1·05	2·67

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·69 in. The lowest was 29·47 in. at the end of the week, and the highest 29·97 in. on Wednesday morning.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2456 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

SKETCHES OF SUCCESS AND FAILURE IN MEDICINE.

BEING THE SUBSTANCE OF THE LUMLEIAN LECTURES AT THE LONDON ROYAL COLLEGE OF PHYSICIANS IN 1862.

By CHARLES J. B. WILLIAMS, M.D., F.R.S.

(*Concluded from page* 631.)

PART X.

VESICULAR EMPHYSEMA OF THE LUNGS—HABITUAL ASTHMA.

Causes and Pathology. Contraction and Thickening of the Bronchi and Roots of the Lungs. Distinction of Emphysema into Tense (or Hypertrophous) and Flaccid (or Atrophous)—Effects and Signs of each. Reptile State of Circulation in Extreme Emphysema—Effects on Tissues and on the Blood in Lungs and other Organs. Treatment successful in Early Stages; in Extreme Cases more Palliative than Curative. Variations and Adaptations of Remedies. Climate—Compressed Air—Oxygenating Agents.

I HAVE alluded to emphysema of the lungs as a sequel of spasmodic asthma, but as a permanent disease it results from the change of structure which repeated and prolonged attacks of asthma induce, rather than from the spasm itself. It is quite true that a single severe fit of asthma often causes a temporary distension of the lungs, the inspiratory effort being more powerful, forcing more air into the lungs than the expiratory forces can get rid of; but this is only temporary, and the balance is soon restored after the spasm is removed. But when the spasm is frequent and prolonged, and when the narrowing of the tubes is further increased and perpetuated by congestion and thickening of the bronchial tissues, then the same change becomes permanent, and instead of temporary distension we have *permanent dilatation of the air-cells*, with various changes of structure in these and in adjoining parts.

Further, emphysema of the lungs is produced by other diseases besides spasmodic asthma. Bronchitis, either in the acute form, frequently recurring, or chronic, lasting for several months—the bronchial and pulmonary congestion connected with certain diseases of the heart, and attended with cough, viscid expectoration, and dyspnœa—naturally tends to cause the same distension of the lung, which by long continuance assumes the permanent form of pulmonary emphysema. Many years ago I pointed out(a) how commonly after death in chronic bronchitis the larger bronchi are found with their membranes and longitudinal fibres thicker and less extensible than usual, and that this comparative shortening of the tubes must have the effect of exposing the terminal cells to a greater amount of the inspiratory force. They thus become so permanently distended as to lose their elastic contractility, and then present the condition of pulmonary vesicular emphysema. The same thing occurs more partially in the vicinity of tubercles and other consolidations of the lung. In proportion as they prevent the entrance of air into one portion of the lung, the air is drawn with more force into the adjoining air-cells, and causes their permanent dilatation. The more extensive consolidation of the lung left by inflammation, if affecting the root of a lung, restrains the free expansion of this part, and the air passes with greater force through the still open tubes to the air-cells of the whole lobe beyond, and these become consequently dilated. In all these cases, too, be it remembered, the chronic deposits and thickenings of tissues have a tendency to still further contraction, as seen in the puckering of the lung and pleura, and the space thus diminished is partly made up by dilatation of the air-cells. Thus we see a sufficient explanation of the mechanical causation of emphysema of the lung, both general and partial, and we shall find some interest in tracing further its anatomical and pathological relations.

More than thirty years ago I directed the attention of the Profession to an important distinction in the anatomical characters of emphysema of the lung in different cases. In both varieties the dilatation of the air-cells is manifest, and the augmentation of the aërial contents of the lung is proved by the general lightness of the organ. But in one set of cases the texture of the lung is resistant and elastic—it does not collapse when the chest is opened; on the contrary, the lungs bulge out as if they had been too large for the bony case which contained them, and they often encroach on the adjoining organs, pushing down the liver and diaphragm, covering the heart, and, projecting above the clavicles, fill up the hollows of the neck. When pressed with the fingers such bulky lungs offer a good deal of elastic resistance, in spite of their porosity; and when cut into they only partially collapse, and the resistance is found to increase more towards their root, and to depend much on an augmented toughness or density of the chief bronchial tubes, and of their surrounding tissues and vascular plexus. This is the *tense emphysema* attended with *hypertrophy* of the bronchi, and represents the common case of the habitual or chronic asthmatic.

In another class of cases the lung presents on its surface the same appearance of enlarged vesicles of many sizes and shapes, and is even lighter than the preceding variety, but with little, if any, augmented volume, and is especially characterised by the extreme flaccidity and tenuity of its textures, so that when a portion of the lung is pinched between the fingers it feels like a thin membranous bag, and when cut into collapses to a great extent. This is *flaccid emphysema*, or that accompanied with *atrophy* of all the tissues. In this case the bronchi are neither thickened nor much contracted; sometimes they are even dilated. This kind of emphysema is met with in the very aged and those worn down by wasting disease. I have also found it in lungs which have long been compressed by pleural effusion, which has eventually been absorbed. In a partial form it is met with in connexion with old phthisical lesions, and with chronic bronchitis attended with free purulent expectoration. In all these cases it has a clear connexion with a wasting process going on in the lung, together with some of the mechanical causes previously noticed as producing distension of the air-cells. In some such cases there are traces of fatty degeneration, as well as atrophy, in the vesicular texture, and the bronchial membrane is also in an attenuated state, having lost much of its characteristic epithelium, and with it the power of secreting mucus, which appears to be a proliferation of epithelial cells. In this may be remarked a close analogy with corresponding wasting diseases in the intestinal canal and in the uriniferous tubes of the kidney—in protracted diarrhœa and albuminuria respectively—the characteristic epithelial structure and properties of the parts become abraded and lost.

Differing as these forms of pulmonary emphysema do in anatomical characters and causes, it may be expected that they may during life be recognised by different signs and symptoms; and this is proved by clinical observation.

In *tense or hypertrophous emphysema* of the lungs we have most of the symptoms and signs of asthma in permanence—breathing always more or less laborious, the expiration being especially prolonged and difficult, whilst the increased volume of the lungs encroaches on the adjoining organs, swells out the walls of the chest, and by its pressure obstructs the passage of blood through the lungs. Hence outside the lungs there is great congestion and occasional lividity, especially in the lips, cheeks, gums, fauces, and trachea—and this may extend to the nails and other parts—with enlargement of the veins of the neck, chest, and subdiaphragmatic organs. The physical signs are those of the increase of the aërial contents of the chest, an unusually tympanic sound on percussion, often of raised pitch, over the whole lung, covering up the heart, and sometimes the liver, to the margins of the ribs; the same resonant fulness projecting above the clavicles, so as to form a ruff-like swelling at the root of the neck, and giving a rounded prominence to the intercostal spaces and the whole surface of the chest. As there is so little motion of air in and out of these distended cells, there is very little of the natural breath-sound heard, but rather a short wheeze in inspiration, followed by a long wheeze in expiration, loudest towards the roots of the lungs in the scapular regions. To this may be added more or less irregular crepitation, if there be liquid secretion in the cells or tubes, increasing from above downwards. The absence of all vocal sounds in the chest is very remarkable, and also the impaired transmission of the heart-sounds, from the decreased conducting power of the porous lung.

In cases of *flaccid emphysema*, on the contrary, the signs and effects of increased volume of the lung and obstruction of the tubes are absent. The stroke-sound is as tympanic as in the tense variety; but, being without tension, it is of lower pitch, and may even be more hollow. But it hardly, if at all, extends beyond the ordinary boundaries of the lung, which, so far from being enlarged, as in tense emphysema, may partake of the shrunken condition of the whole body. The motions and sounds of breathing are by no means much impaired; they may be

(a) "Lectures on the Physiology and Diseases of the Chest" (*London Medical Gazette*, 1838).

longer than usual, but are rather exaggerated in intensity, the breath-sound being puerile and of a peculiar dry and whiffing character, from the air passing freely through open and sometimes dilated tubes into a coarse, large-celled tissue; in fact, this flaccid emphysema—although, if extensive, it may impair the breathing power of the individual by diminishing the number of air-cells and the amount of action between the air and the blood—does not produce the tight, wheezy breathing of the asthmatic, but rather the panting breathlessness of the aged, emaciated, or anæmic; and it is in such subjects that this lesion is most commonly found.

To recur to the *tense, bulky*, or *asthmatic* form of emphysema, it will be interesting to trace the pathological history of its extreme degrees. The important feature of this lesion is the increased volume of the lung which the expiratory forces cannot reduce, in consequence of the impeded egress of air from the obstructed bronchial tubes; and this increased volume becomes in a measure an additional cause of the obstruction, for the stuffed cushion of lung is forced at each expiration, especially in the more forcible acts of coughing, against the bronchial tubes, trachea, and vessels of the neck, so as to compress them and cause those feelings of throat-swelling and choking so distressing in aggravated forms of emphysematous asthma. Dr. Jenner has lately propounded the notion that expiratory efforts are the chief cause of emphysema, by forcing the lung into those parts of the chest in which the walls are least resisting(b); but there is no proof that the walls over the apices of the lungs do yield until they are pushed out by the already increased volume of lung—that is, emphysema. Then, indeed, coughing or strong expiratory efforts will make the lung protrude into the neck; therefore these expiratory protrusions are to be viewed rather as a result and aggravating element of the emphysema than as its original cause. And it is this excessive stuffing of the chest with impure air which tends to impede equally the entry of the pure air and the passage of the blood through the lungs. Hence the congestion of dark blood, giving a purple or dusky hue to the lips, face, and other parts of the surface, and extending to the liver, kidneys, brain, and other extra-thoracic organs—in fact, the subjects of extensive emphysema are reduced to the imperfect respiration and circulation of reptile life; and, as might be expected, all the functions are deteriorated in proportion.(c) It is only because the change takes place by slow degrees that life is sustained. The lividity exhibited by an emphysematous subject would rightly be considered a mortal symptom in any other malady. And now comes out another illustration of what I said of pneumonia and other parenchymatous affections of the lungs: that they are not mere local diseases, but affect the blood also, and through it the whole system. The pressure of the distended lung in great measure shuts out the blood from it and from its arterialising function; and further results will sooner or later ensue in the gradual deterioration of the texture of the lung itself, and of the condition of the blood throughout the body. The lung-tissue, which in tense emphysema is more or less thickened, especially towards the root, under the influence of long-continued pressure and scanty supply of blood, wastes, and passes from the fibrous to the fatty state of degeneration, this change being most obvious in the aged asthmatic. It is remarkable how old deposits of tubercle or other cacoplastic matter are removed under the constant pressure of emphysema. I have seen the cicatrices of former cavities and the lining membrane of those actually remaining, or that containing the cretaceous *débris* of tubercle, reduced to the same tenuity with the other tissues of the lung.

The effect of extensive and long-continued emphysema on the blood and its vessels is manifest in the leaden pallor of the surface, contrasted with the dark congested state of the mouth, fauces, and larynx; the right cavities of the heart become enlarged; the liver, kidneys, and other organs partake in the livid congestion, and their degeneration not uncommonly follows; the senile senilis generally appears early; and albuminuria, anasarca, and general dropsy usually precede death.

But it must not be supposed that these extreme results occur in all cases of emphysema. In more moderate degrees emphysema occurs in connexion with chronic bronchitis, and with the slight pulmonary congestion accompanying organic diseases of the heart, and, merely adding an habitual shortness of breath and wheezy cough to these affections, may be regarded rather as an infirmity than as a very serious disease. The function of breathing and circulation in such individuals is reduced to a reptile standard; and if they can be contented to remain within their limited sphere of activity, slowly and quietly creeping their way, and not attempting in any sense to bustle, to run, or to hurry, they may live for many years in tolerable comfort.

It may be inferred, therefore, that the successes in the treatment of confirmed emphysema or chronic asthma will be chiefly of the minor class, amounting to mitigation or alleviation rather than perfect cure, and failures are to be expected in those intense and aggravated cases, in which the distension of the lung is so great and lasting as to cause much wasting and degeneration of its tissues. But there is a period in which the emphysematous distension of the lung is removable. If the causes which produce the incarceration of air in the cells (shortening and partial obstruction of the air-tubes, and thickening of the lung around them) can be taken away before the structure of the air-cells is altered by their continued distension, the lung may return to its natural condition and dimensions. Something of this kind commonly takes place after extensive bronchitis, in which there is more or less temporary emphysema. Still more does it occur after severe fits of spasmodic asthma, which induce more or less temporary emphysema; but the cause being transient, the lungs recover their normal dimensions. Now, it can be well understood that between these temporary varieties of emphysema and the confirmed and advanced disease there are intermediate degrees, which may be removed or ameliorated by appropriate treatment.

Among the remedies chiefly useful are those employed as expectorants of the more stimulating class—squill, salts of ammonia, ammoniacum, and other gum resins; benzoin, tolu, and other balsamics; creasote, and other terebinthinates. Some of these exhibited through the stomach, others by way of inhalation with the vapour of hot water or in spray, tend to excite the secretion and expectoration of bronchial mucus, and thereby to diminish the obstruction to the egress of air from the distended cells. Often their operation may be aided by the iodides and bromides of potassium and ammonium and alkalies, before mentioned as useful in recurring asthma. The employment of stimulating expectorants in bronchitis and emphysema requires careful judgment and discrimination; for if given too soon, or during any inflammatory or febrile exacerbation or fresh spasm, they do harm instead of good. In fact their operation is always the opposite of that of the remedies for recent bronchitis or spasmodic asthma (salines, antimonials, belladonna, etc.), and it becomes beneficial in consequence of the bronchial muscles and membrane passing into somewhat of an opposite state—inflammatory irritation having given place to passive congestion, and spasmodic contraction to atonic or paralytic relaxation. So, too, with this change belladonna, stramonium, and salines fail to give relief, and are even hurtful. And yet the transition from one condition to another is neither constant nor uniform; and it often happens that at one time of the day there may be distressing cough with difficult expectoration and the long crepitant respiration of an atonic state of the tubes; and at another time the tight wheezy breathing, inspiration and expiration, of spasmodic asthma. Nay, sometimes these opposite conditions may coexist in different parts of the same lungs, and entirely baffle our efforts to counteract them.

The most common case, however, of these opposing conditions is that the atonic state prevails throughout the day, and more or less of the spasm recurs at night; and therefore it often answers well to give stimulant expectorants and even tonics during the day, and a dose or two of antispasmodic or narcotic in the night.

I have just named tonics, and they require a little further notice with regard to their influence on these diseases. Like other affections which impair sleep and appetite, and exhaust strength, continued asthma or bronchitis wastes flesh and blood; and therefore ordinary reparative tonics, such as iron and quinine, may be often useful to sustain the failing general strength and structure of the frame. But certain tonics seem to have an invigorating influence on the muscles of respiration, external and internal, and may to a certain extent restore the breathing powers, when these have been impaired by prolonged attacks of dyspnœa and cough. I allude especially to strychnia, zinc, and arsenic. In several instances the continued use of strychnia (in doses of from 1-32nd to 1-24th of a grain three times daily, dissolved in an acid) has been followed by marked improvement in the breathing powers, and a diminished

(b) Medico-Chirurgical *Transactions*, 1857.

(c) This resemblance to the reptile standard of respiration and circulation is further shown in the fact manifest in some extreme cases of emphysema, that in proportion as the circulation is impeded and the bloodvessels shrink and waste in the lungs, a supplementary circulation takes place in the integuments of the chest-walls, which are marbled with enlarged bloodvessels, and in the mucous membranes of the upper air-passages, which are turgid and loaded with mucus.

tendency to the attacks of asthma. But if exhibited during attacks of spasmodic asthma, it seems rather to aggravate it than otherwise; and it is when these are over, and a state of exhaustion or atony follows, that this remedy proves beneficial. The same remark applies to the preparations of zinc, whether oxide, sulphate, or valerianate. In connexion with this operation of strychnia we may bear in mind its power to prevent vomiting and restore tone to the stomach in cases of nervous exhaustion from abuse of stimulants, or from hysteria, in which I have often found it the most efficacious of all remedies. Whether in all these cases it acts directly on the affected tissues, or through the medium of the nerves, we are hardly yet in a position to determine. Arsenic is another remedy which seems to improve the breathing powers in some cases of emphysema, and to diminish the frequency of attacks of asthma; but it is slow in its operation in the doses in which it may be safely given (three or four drops of arsenical solution twice daily), and patients will not often persevere with it long enough to derive benefit from its use. I have found it peculiarly efficacious in the not uncommon cases of asthma complicated with psoriasis or eczema; but its beneficial influence is not limited to these.

Asthmatic subjects are extremely sensitive to atmospheric changes, and to all influences which affect the purity and other qualities of the air. A person afflicted with extensive and confirmed emphysema, especially that of the tense kind, may be thrown into a state of severe suffering by a change in the wind, by the coming on of a fog, by impurities in the air, or a rise in its temperature, such as would not affect a person in health. It is only by avoiding all such deviations from the most salubrious standard that a patient thus affected can enjoy anything like ease and comfort, or indeed can hope to prolong life; and fortunate are those who can afford to migrate as the seasons change, and enjoy the pure air of a dry heath in the summer, and in the winter the equally pure but tempered air of the Nubian desert. Those who cannot afford to change their residence with the season should fix their abode in a sheltered spot, on as dry a soil, and in as pure an air, as they can find—in the summer much out of doors, strolling and basking in the sun; in winter, for the most part, shut up in well-ventilated, warm, but not overheated rooms. Such cases might be expected to derive much advantage from any means of increasing the oxygen in the air which they breathe, either by condensing the air by a forcing-pump in an air-tight room for the purpose, as has been practised at Montpellier and other places in France, and at Ben Rhydding in Yorkshire, or by the occasional inhalation of oxygen gas more or less diluted with common air. I have known several instances in which these means have been tried by asthmatic and emphysematous patients, and some have experienced considerable relief for a time, but not of sufficient extent or permanency to induce them to persevere long in the measures, which have many inconveniences, and are not always unattended with risk. Recently, oxygenated drinks have been recommended with the object of supplementing through the stomach what the lungs cannot receive; but it is very doubtful that either the so-called oxygen water or the diluted peroxide of hydrogen can introduce into the stomach a sufficient amount of oxygen to produce a perceptible effect in this way. But we have in nitric acid and chlorate of potass materials rich in oxygen, and readily parting with it, which may be given pretty freely without inconvenience. Twenty or thirty drops of the diluted acid with ten or fifteen grains of the chlorate in three or four tablespoonfuls of water may be taken three or four times daily. I have often prescribed this compound in cases of emphysema and other diseases in which the breathing powers were much impaired, and in some instances with apparent benefit. From some Hospital trials formerly made, it would appear that neither the chlorate nor the nitric acid can be detected in the urine. Therefore the oxygen is retained somewhere in the system; but further experiments are required to determine this point.

Note added in 1872.—The preceding remarks on pulmonary emphysema, prepared for the Lumleian Lectures in 1862, were for the most part the same as those which I delivered in my lectures on the Principles and Practice of Medicine at University College annually, from 1840 to 1850. The chief points, indeed, as to the origin of the disease and its distinction into the two forms—*tense* (or *hypertrophied*) and *flaccid* (or *atrophied*) *emphysema*—had been published before those dates in my lectures in the *London Medical Gazette* in 1838, and in my work on "Diseases of the Chest," and in "The Library of Medicine" in 1840. Since that period contributions on the subject have been made by Dr. G. Budd, Dr. Sibson, Dr. Gairdner, Dr. Waters, and Sir W. Jenner; but although these several writers have added to our knowledge some interesting observations relating to the disease, I have found in them nothing to invalidate the views which I have given above. The most recent of these authors—Sir W. Jenner—has made the same distinctions between hypertrophous and atrophous emphysema that I had made long before; and although he applies the new terms *large-lunged* and *small-lunged* vesicular emphysema, his descriptions are so much the same as mine that it appears singular that he should have made no allusion to them.

Sir W. Jenner considers large-lunged vesicular emphysema to be most commonly caused by violent expiratory efforts, as in coughing with the glottis closed, which protrude and distend the air-cells in the directions in which there is least resistance, and the distension is rendered permanent by changes in the texture of the walls of the air-vesicles resulting from excess of blood in their capillaries. I quite admit that cough and other violent expiratory efforts are concerned in aggravating the effects of pulmonary emphysema, and I have long been in the habit of pointing out supraclavicular and intercostal protrusions during coughing as signs of emphysema, partial or general; but I consider that the chief initial cause of over-distension of the air-cells is the inspiratory act in some of the modes already described; and it is when the volume of air in the lung is already so much increased as to render its escape through the bronchi difficult, that it forms a full cushion, protruding all the more yielding walls of the chest. And these very acts of protrusion may add to the dilatation of the air-cells, and to the consequent obstruction to respiration and circulation.

ORIGINAL COMMUNICATIONS.

ON ANTISEPTIC DRESSING AFTER AMPUTATION OF THE BREAST.

(CASES UNDER THE CARE OF MR. SPENCER WELLS AND MR. COUPER.)

The following cases of amputation of the breast show how surely suppuration can be prevented in large wounds by Lister's antiseptic dressing. They comprise *all* the cases of this amputation in which the two Surgeons concerned have resorted to the antiseptic method, and place its advantages in a more striking light than selected cases can do. Although the details of the dressing have undergone many variations since its origin seven years ago, the principles on which it is based remain unchanged. The latter may be thus epitomised:—

1st. To destroy all particles capable of initiating putrefaction within the wound; and, having thoroughly done so,

2nd. To conduct the subsequent dressings with a view to the exclusion of such particles during the process of healing.

It is a common error to suppose that air must be excluded from the wound. Air may be and is freely admitted without causing putrefaction after being deprived of the septic particles which it happens to contain. All modifications of the method have been devised solely with a view to the better securing of these ends.

In some instances the operations were done in an atmosphere of carbolised spray (1 to 100), while in others a saturated watery solution of carbolic acid was freely injected through the wound after insertion of the sutures. The vessels were secured either by torsion or by ligatures of prepared silk or catgut, of which both ends were cut off close to the knot. In all instances the entire mammary gland was removed with the tumour, and the wound closed by deep and superficial stitches. Deep sutures of catgut were employed for the purpose of lessening strain on the superficial stitches, and of bringing the deep surfaces more completely in contact. When they were adjusted the edges of the skin lay in contact without tension, and were thus maintained by fine continuous suture. A little gap was left at the lower end of each wound, into which a shred of lint, saturated in a mixture of one part of carbolic acid to ten of olive oil, was introduced as a drain to any blood or serum that might exude during the first twenty-four hours. Carbolised gauze was the dressing used. Owing to the great surface presented by its interstices, it prevents putrefaction with greater certainty than the lac plaster. When much discharge was anticipated the thickness of gauze was increased, and a piece of thin mackintosh was interposed

between the outer two layers, in order to prevent discharge reaching the surface directly over the wound.

The following three cases of amputation of the breast, under the care of Mr. Spencer Wells, are communicated by Wm. Thomson, M.B., M.C., M.R.C.S. :—

Case 1.—*Large Scirrhous Tumour of the Right Mamma—Firm Primary Union four days after Removal.*

A married lady, aged 50, came under observation last summer. The tumour was of large size, and of more than two years' standing. The axillary glands were not affected, but the skin was closely adherent to it. It was removed under chloroform by Mr. Wells on September 27, together with the mamma and the affected skin.

On the following day the dressing was hardly stained, and the removal of the drain was not followed by the escape of any fluid from the wound. The patient had slept, and was in all respects comfortable.

On September 29 she was able to sit up in an arm-chair. On removing the dressing about a thimbleful of serum was found to have escaped from the lower end of the wound. Redness, pain, and tension were entirely absent.

On 30th there was perfect union of the skin edges, and the superficial stitches (which had not occasioned suppuration) were removed. The gauze was unstained, except at the spot where the drain had been.

On October 2 one deep stitch was withdrawn. The remaining two were left until the following day to give support to the deeper parts in case their union should not be perfect. They had not irritated the tissues nor produced discharge. Perfect primary union was then found throughout the whole extent of the wound excepting at the spot at which the drain had been; one or two granulations made their appearance there. They had all but skinned over on October 7, when the patient went by rail to Bath, and was seen in London last week, the cicatrix being a mere line and with no induration around it, although there were two or three suspicious-looking nodules in the skin at some little distance from the scar.

Case 2.—*Adenocele of the Right Mamma, Removed by Operation—Primary Union in Five Days.*

An unmarried lady, aged 41, had had an adenocele of the right mamma for many years. It, together with the mammary gland, was removed by Mr. Spencer Wells on February 19, and weighed three pounds and a half after removal. The drain was not withdrawn for forty-eight hours, when one drachm of bloody serum issued from the wound. The superficial stitches were extracted on the fourth day, and the deep on the fifth day from the operation. The whole wound had then united by first intention excepting at the spot where the drain had been. The innermost layer of gauze was slightly stained by serum at the end of the first and second days; otherwise the healing was entirely dry. The patient was able to leave her bed on the third day, and to go out of doors in a bath chair on the seventh day. She is now quite well, and with a freely movable soft cicatrix.

Case 3.—*Fibro-plastic Tumour of Mamma—Excision, followed by Primary Union.*

The third case was that of a widow-lady, aged 40, suffering from a recurrent fibro-plastic tumour of the mamma. It had been removed by Dr. Bell about a year previously, by the application of strong sulphuric acid, but had speedily grown again. Mr. Spencer Wells excised it on April 12, 1872. The tumour weighed a pound and a half after removal. The skin being implicated to a considerable extent, and the incisions being carried quite clear of the affected parts, a wide gap remained to be closed. So much tension was produced when the deep and superficial stitches were adjusted, that, although the skin edges were in accurate apposition, there appeared but little prospect of primary union. This, nevertheless, occurred in a most satisfactory manner in the whole extent of the wound, with the exception, as in the preceding cases, of the small opening by which the drain was inserted. The superficial stitches were removed on the fourth day; the deep ones on the sixth day after the operation. Unfortunately, on the latter day the patient ventured to brush her own hair, moving her arms very freely in so doing. The middle part of the scar, although quite closed on the previous day, gave way to the extent of two inches. As the gauze-dressing was undisturbed, no suppuration followed at first. A fortnight elapsed before this part had completely closed again. It closed by granulations, which, however, could scarcely be said to exude pus. A little gummy discharge stained the under layer of gauze, at the edge of the green protective which covered the granulations, on each second or third day, when the dressings were removed to admit of the wound being inspected.

On the seventeenth day from the operation the patient left town for Brighton.

The following two cases of amputation of the breast were under the care of Mr. Couper :—

Case 1.—*Scirrhous Tumour of Right Mamma—Excision, followed by Primary Union.*

This case was that of a woman, aged 50, admitted into the London Hospital, last autumn, with a large scirrhous tumour of the right mamma. It had been growing for about two years. The skin was adherent to it, and puckered in at one spot; but the axillary glands were not indurated, and the tumour glided freely on the pectoral muscle. She was very fat, of an active, vigorous disposition, and in the enjoyment of good health. Mr. Couper removed the tumour, together with the mamma, nipple, and a large piece of skin. The wound was dealt with as in the preceding cases. A drop or two of serum oozed from the wound when the drain was withdrawn, at the end of twenty-four hours. With this exception, a perfectly dry healing took place throughout. The deep and the superficial stitches were removed on the fourth and fifth days. One of the former had been so tightly applied that on division the ends sprang more than an inch apart. A momentary darting pain accompanied this sudden release of tension, but no fluid issued from the emptied track of it or of the other deep sutures. By that time the entire wound had firmly closed. On the seventh day the patient, who, but for severe chloroform nausea of twenty-four hours' duration, had experienced no feeling of illness, was allowed to dress and leave her bed. The pressure of her dress, together with the weight and resilience of the parts about the scar, caused a portion of the latter to give way. The skin wounded opened to a very small extent. A probe introduced here showed that the deep wound had reopened to the extent of about an inch. The adhesion of the subcutaneous adipose layer had proved less resistant than that of the skin, the cicatrix of which was to some extent undermined. Serum continued to exude for several days. On the eleventh day from operation the damage had been repaired, and the wound was closed from end to end. Her temperature reached 100° on one occasion only. Eight months later the scar exhibited no trace of a recurrence of the disease, and the patient continued in the enjoyment of perfect health.

Case 2.—*Excision of Mamma with a Scirrhous Tumour and Three Cancerous Axillary Glands—Death on the Third Day from the Action of Shock upon a Heart enfeebled by Fatty Degeneration.*

The history of this, the last case, is required to complete the series. As it terminated fatally, before any healing had commenced in the wound, it is valueless as regards antiseptic dressing. The tumour at the date of the operation had been noticed eighteen months. Its existence must, however, date still further back, as it had attained the size of a walnut before it attracted attention. Since then it had grown very slowly. In January last it implicated only the extreme upper and outer border of the gland, and glided freely on the pectoral muscle. A small patch of skin over its centre was adherent, and three superficial axillary glands were stony hard, and evidently carcinomatous. The woman had enjoyed good health for years, and her aspect confirmed this statement. This circumstance, together with the small size, slow growth, and superficial position of the diseased parts, favoured a successful issue to a cutting operation. On the other hand, the implication of glands was unfavourable, from the diminished chance of removing all the diseased parts. The precise bearing of these several circumstances, as also the nature and usual course of the affection, were fully explained, in order that she might exercise a choice in the matter. After a fortnight's deliberation she elected to undergo the operation. It was accordingly performed by Mr. Couper on January 17. The mamma, a piece of skin including the adherent part, and the affected axillary glands were removed with the tumour. Neither the pectoral muscle nor the deep fascia investing it were cut. The wound was dealt with as in the preceding cases. Although the hæmorrhage was trifling (six vessels were secured by catgut), the patient became blanched, and had a very small pulse on recovering from chloroform, which she took well. This shock partially disappeared after the administration of two ounces of brandy, and a further reaction was determined by a full opiate. In the evening there was some (?chloroform) vomiting, followed by free oozing of blood from the wound, and the dressing had to be renewed. She passed a good night, and on the morning

of the 18th had a temperature of 100°. The wound was free from pain or tension; bleeding had ceased with the vomiting, and only a little serum exuded when the drain was removed. The pulse was still weak, and the countenance pale. The shock was greater than could be accounted for by the wound. Stimulants were given in small hourly doses.

On the 19th she appeared to be progressing. She had a better pulse, and was able to take some nourishment. The wound continued dry and antiseptic. At 5 p.m. she suddenly began to sink, and died two hours later.

Dr. Sutton made a post-mortem examination twenty hours after death. Very rapid decomposition had occurred, causing an abundant evolution of gas throughout the body. So copious was it, that all the limbs were resonant to percussion. The belly was tense from gas within the bowel and in the peritoneal cavity. There was no pus or other fluid within the wound. Any adhesion that might have occurred had been dissolved by decomposition. The ribs were found covered by an unbroken layer of muscle and facia, which formed the floor of the wound. There were old adhesions of both pleuræ—a good deal of serous œdema of both lungs, such as is not infrequent in cases of sudden death. No branches of the pulmonary artery were plugged; no collapse of lung. There were complete old adhesions of the pericardium. There was a thick layer of fat on the surface of the heart, which was rather large. Its valves were healthy. The left ventricle was somewhat dilated and quite flaccid. All the muscular substance of the heart was exceedingly soft and friable, and its section had a greasy look. Sudden failure of the heart had been the immediate cause of death. The state of other organs corroborated this view. The section of the liver had a homogeneous look due to serous œdema, and there were patches of passively dilated vessels in the mucous membrane of the stomach. The kidneys exhibited no nephritic changes, and there were no cancerous deposits in any internal organs. All the morbid growth had been removed. The liver substance was soft, friable, and had a pale greasy look. The spleen was small. No other morbid appearances were noted. The heart, enfeebled by fatty degeneration, only partially rallied from the shock of the operation, and ultimately failed very suddenly. Dr. Sutton remarked that in all probability the structural degeneration of the heart could not have been detected during life. Occasionally a double second with prolonged and muffled first sound was heard in a heart with much fatty change of its muscular substance, owing to the contractions of the ventricles not being synchronous, and the aortic valves not closing simultaneously with those of the pulmonary artery.

ON THE PATHOLOGY AND TREATMENT OF SMALL-POX.

By ROBERT H. BAKEWELL, M.D.,
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It may seem an ambitious project to attempt to write anything new about small-pox after the publication of such treatises as those of Copland, Gregory, and Marson. These men, writing from an immense clinical experience, would seem to have exhausted all that can be said about a disease apparently so simple in its phenomena as small-pox; nor should I, a year ago, have presumed to attempt such a task. In the interval, however, I have had a considerable experience of an epidemic unexampled in severity even in the West Indies, and my appointment as Resident Medical Attendant of the Small-pox Hospital, of which I have had the entire charge during the whole of the epidemic, have given me opportunities of investigating the pathology of the disease such as cannot be obtained in outdoor practice. Of these I have availed myself to make daily microscopical examinations of the contents of the pocks. It is singular that in none of the treatises to which I have access here can I find any microscopical observations on this disease. Of all my cases (about 250) I possess careful notes. Of these, 203 were treated in Hospital, and the remainder out of doors. Through the kindness of some of my *confrères* I was permitted to see a considerable number of other cases, and to compare them with my own. Besides these I have had experience of three English epidemics. Of cases then treated I possess no notes, and they only serve as a rather vague standard of comparison for those recently seen.

The number of cases may seem ludicrously small when compared with the vast experience of Mr. Marson, for instance; but the 250 cases *here* represent a far larger proportion of severe cases than the same number would in England. Out of 203 Hospital cases only 50 were discrete, more than 17 per cent. were of the hæmorrhagic type, and above half were unvaccinated. Now, an attack of small-pox in an unvaccinated negro or Spanish American, living in a wretched hut in a West Indian town, is in a general way a bad one. But I have no absolute conclusions as to treatment in these cases; my observations are chiefly pathological, and the treatment followed is deduced from those observations, but is not meant to supersede the results obtained by a larger clinical experience. As, however, there can be no rational treatment which is not based on sound pathological knowledge, I venture to think that some improvements may be made in the treatment of small-pox when its pathology is better understood.

I shall not take up the reader's time by any historical review of small-pox, or of its laws as an epidemic disease. Suffice it to say that in every inhabited region of the world it can flourish, and in every climate; that it attacks every known race of human beings; and that while its ravages are dreaded in crowded cities, they are even more terrible among tribes of wandering savages, living in the open air, and changing their abode whenever it suits their caprice.

It may seem superfluous to describe the course of a disease so well known as discrete small-pox, but yet the reader will find that it is probably because the symptoms are all apparently so simple, that they have not been studied as they ought to have been, and that the import of some of the phenomena has been misunderstood. The following description is taken from the records written down at the bedside of patients.

An apparently healthy person who has never been successfully vaccinated, and has been exposed to the contagion of small-pox, after a period of incubation usually stated as from twelve to fourteen days,(a) is attacked rather suddenly with fever, headache, pain in the loins, and often vomiting; the pulse varies from 100 to 120, the temperature from 101° m.—103° e. to 102° m.—105° e. On the third day of the fever an eruption of minute vesicles (usually called papules) appears on the face and back of the hands and wrists; the fever abates. The next day the eruption is more copious, and the vesicles of the first day are more prominent. The fever in the slighter cases now ceases altogether; the temperature falls to 98·4°, the pulse to 76. Every day until the fifth or sixth the vesicles become larger, their contents remaining clear and transparent; an umbilicated depression is observed in those on the face, trunk, and upper extremities; those on the lower extremities, particularly about the feet, are often convex from the commencement. On the fifth day a slight degree of secondary fever occurs, marked by a temperature of 100° to 102°, and lasting for two or three days. During this stage the vesicles become rounded or convex, the central depression disappears, their contents become thicker, cream-coloured, and by degrees quite opaque. On the seventh day the vesicles on the face begin to burst, and then scab and dry up; the same process goes on a little later on the upper extremities and trunk. On the feet and legs, however, it often happens that the vesicles dry up without bursting, and the scab contains an unbroken vesicle, which may be separated as a closed sac from the outer layer of the epidermis above, and from the upper layer of the cutis below.

After the bursting of the vesicles, all febrile symptoms disappear (in discrete cases), the patient suffers only from slight debility, his appetite becomes more than good—even voracious—and he simply gets well without a symptom to record.

On dissection of pocks in various stages, it is found that they are formed upon, but not in the substance of, the cutis vera, below the rete mucosum. The presence of pigment in the cells of this latter membrane in the dark-skinned races has enabled me very accurately to ascertain the exact position of the pock, a matter which is of considerable importance pathologically and in relation to treatment. I have a preparation, taken from the body of a Hindoo, who died on the second day of the eruption from acute dysentery, which shows very well the anatomical position of the pock in the early stage of the eruption. By drying a portion of the skin in the sun, I was enabled to obtain a thin perpendicular section, in which can be seen the outer epidermic layer, which can be easily separated by tearing from the pock, the rete mucosum forming the outer wall of the pock, and the dilated capillaries with their stagnant red corpuscles, which in the dry specimen mark even to the naked eye the position of the vesicle. I say "vesicle," for, though commonly considered as papular at this early stage of the

(a) I am not sure that the period of incubation is invariable.

eruption, they are in reality vesicles—that is to say, they consist on the very first day, and from the first hour at which they become perceptible to the touch, of a membranous sac containing fluid. If carefully punctured with a sharp and fine needle, a minute drop of transparent colourless fluid will exude.

If this apparently homogeneous fluid be placed under the microscope, and magnified 200 or 220 diameters, it will be found to contain epidermic cells, and floating about a few rounded corpuscles, somewhat like pus corpuscles, containing two, three, or four bright, well-defined nuclei, or two larger nuclei with nucleoli, or sometimes a number of bright granules. These corpuscles may be somewhat smaller than a red corpuscle of the blood, or they may be, and most often are, larger than a white corpuscle.(b) I am speaking of them now only as they appear on the first or second day of the eruption. In addition to these corpuscles, there are some bright nuclei about half the size of red corpuscles, and some minute granules whose nature I have not been able to determine for want of a sufficiently high microscopic power, but which appear like the contents of some of the nuclei.

If the contents of the vesicles be examined daily, as I have done in twenty-seven cases, it will be found that the variolous corpuscles increase in number daily, and that a new form, not to be found on the first or second day, appears. This is a proliferous cell, large enough to contain three, four, or even five of the smaller corpuscles. These proliferous cells apparently burst and discharge their contents, as there are always to be found with them flat circular bodies of the same size, of an absolutely structureless membrane, and without any contents. I have also seen in many cases one of the proliferous cells ruptured at one part, with one or two corpuscles just escaped from its cavity, lying by its side, and others remaining within it.

Acetic acid brings out the nuclei more brightly; but as the corpuscles are filled, or nearly so, with nuclei, there is not that striking difference produced by acetic acid which we see in some cells treated by this reagent.

When the fluid of a vesicle is kept in a capillary glass tube without any preservative fluid for two or three days, or is allowed to dry up under a thin slip of glass, nothing but brightly refractive nuclei and granules are to be seen. If in the latter case a drop of water be carefully added without disturbing the thin glass cover, so as to insinuate itself underneath by capillary attraction, the forms of the corpuscles will be again perceived.

On the seventh and subsequent days, when the contents of the *variole* (to use a French term which is more convenient than "pock," and has the advantage over "vesicle" or "papule" of not committing one to any pathological theory) become thick and opaque, or, as the books call them, "purulent," it will be found that this opacity is caused entirely by the multitude of these solid bodies, which fill the fluid so as hardly to be able to float about in it. On the seventh and eighth days they are most abundant, and the proliferous cells are most numerous. On and after the ninth day the proportion of free nuclei or bright granules (or nucleoli?) and of proliferous cells diminishes gradually, the medium-sized corpuscles predominating; and on the tenth or eleventh day the corpuscles are all found to be of much the same size, having then arrived at what I believe to be their full growth. The tenth or eleventh is, in a normal variole, the latest day on which they can be observed without the addition of some fluid.

I have been obliged to give this description of the variole before entering upon the symptomatology of small-pox, because the course of that disease cannot be rightly understood without first understanding the life of the variole. It will be observed that in describing a case of small-pox I have carefully avoided the use of the word "pustule." There are no pustules in small-pox. The contents of what the books call "vesicles" do not become "pustular." The same elements are found in the "papules" of the first and second days; in the "vesicles" of the third, fourth, and fifth; and in the "pustules" of the sixth or seventh and subsequent days—only at the commencement of the eruption they are few in proportion to the fluid in which they float, and at the close they are so numerous that the fluid is only sufficient to moisten them and keep them alive.

As regards the question as to what is the actual contagium of small-pox—that is to say, what is the thing which, introduced into the body of an unprotected person, will reproduce in him the same phenomena which attended its own growth and development—I feel no doubt that the corpuscles I have called "variolous" are that contagium: they are so abundant in the only fluid which has hitherto been employed for the purpose of reproducing small-pox artificially by inoculation, and they seem to contain within themselves that reproductive power which is essential to the contagium of a disease like small-pox.(c)

My observations on the blood of patients in the stage of eruptive fever are, I regret to say, very few. It rarely happened that patients were brought to the Hospital until the second day of the eruption, and at the time when I had the greatest number of cases in an early stage I was too busy to undertake microscopical observations. The few I have made are quite insufficient to enable me to speak with any degree of certainty as to the existence of variolous corpuscles in the blood during the stage of eruptive fever. It seems to me very probable that they are to be found in the blood at that time; in severe cases probably in large numbers. One thing is certain: that in three cases in which I made observations, corpuscles exactly resembling those contained in the varioles were to be found abundantly in the blood of a patient on the first day of the eruption, when it was very slight, and that none were to be found on the third day, when the eruption had become extremely copious and confluent. Moreover, in a case of hæmorrhagic or malignant small-pox which was under my care for a few hours previous to death, when there was no proper variolous eruption, but only patches of epidermis separated from the cutis by bloody serum, and the patient died with symptoms of intense blood-poisoning, the blood one hour and a half after death was perfectly fluid, and ran out of an opened vein as rapidly as it would have done from the living subject, but in *two distinct strata*, one of colourless serum, the other dark purple. The colourless serum was found to be as rich in (apparently) variolous corpuscles as a vesicle of the third day. These were certainly not the white corpuscles of the blood. That the petechiæ on the skin were not caused by a deficiency of fibrine was shown by the firm coagulation of the blood a few minutes after it was removed from the body. The temperature of the corpse at the same time was 106·9° in the axilla.

However this may be, there is no doubt that careful chemical and microscopical investigations into the state of the blood during the eruptive fever of small-pox and the allied diseases would be of great value, and are much needed.

My own belief is that the variolous contagium enters the system through the mouth and lungs chiefly. That entering, generally in a dry condition—in a state of suspended animation, as it were—it must first return to the condition in which it was previous to the drying up of the variole in which it was formed. It then rapidly grows, and the reproductive process goes on in a way as yet unknown, until the variolous corpuscles in the blood become so numerous as to interfere with the normal nutrition of the nervous system, and more especially of the ganglionic system. Hence the febrile symptoms, which increase in severity until the offending matter, foreign to the blood, is thrown out of it in the eruption. Until the eruption is complete, as far as the number of varioles is concerned, the fever, though mitigated, does not entirely cease.

When the eruption is once complete—that is to say, when fresh varioles cease to appear, which usually happens in discrete cases within twenty-four hours of the appearance of the first variole—the fever, as marked by pulse and temperature, disappears. The irritating matter, the poison of small-pox, is by means of the eruption removed from the blood, and placed as it were outside the body. Being but few in number, the varioles do not for the first few days occasion any local inconvenience. About the fifth day, by their distension and pressure on the sensitive surface of the true skin, they give rise to an irritative or surgical fever, called the secondary fever. It is important to remember that this secondary fever is not from blood-poisoning. It has nothing to do with small-pox as a blood-poison; it is caused by the local pressure and local irritation, just as a grain of sand in the eye might occasion fever by setting up acute conjunctivitis. In discrete cases with few varioles this fever does not commence until the fifth day, and ceases on the seventh or eighth, its length and severity depending on the number of the varioles and the treatment adopted. The secondary fever must be treated as a purely surgical fever; but on this point more will be said when we have to speak of the secondary fever of the severer forms.

We have, then, in an ordinary case of discrete small-pox four stages—1st. The incubative stage marked by a *malaise* so-

(1) Nothing more is seen under a magnifying power of 700 diameters.

(c) I shall describe hereafter the results of some experiments on their reproductive powers, and also the contents of varioles in hæmorrhagic and abortive cases of small-pox.

slight as not unfrequently to pass unnoticed; 2nd, the stage of eruptive fever lasting three days; 3rd, the stage of quiescence after the full appearance of the eruption; and, 4th, the stage of secondary or surgical fever.

The incubative period requires—and would doubtless repay—investigation; the period of eruptive fever is one of blood-poisoning, not easily distinguishable from several other fevers caused by blood-poisoning. The foreign matter eliminated from the blood by the eruption ceases to produce any poisonous effects, and a period of almost perfect quiescence follows. As, however, the variolous corpuscles grow and multiply, nourishing themselves in that mysterious *something* which apparently exists in the blood of almost every human being at birth, and upon which alone the variolous corpuscle can live, grow, and reproduce its like, they create some irritation by their mechanical pressure. When they burst or are opened this latter fever entirely disappears.

Such is the type of small-pox as it appears in a healthy unvaccinated person, living under good sanitary conditions, and not under the influence of panic.

(*To be continued.*)

REPORTS OF HOSPITAL PRACTICE
IN
MEDICINE AND SURGERY.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

TREATMENT OF PTERYGIUM BY TRANSPLANTATION.

(Under the care of Mr. GEORGE LAWSON.)

The following case is illustrative of a very efficient method of treating pterygium, and as four years have elapsed since the operation was performed on the one eye of this patient, there is reason to believe that the cure is likely to be permanent.

John K., a young man, aged 34, came to the Royal London Ophthalmic Hospital four years ago with a well-marked pterygium in the right eye, and one commencing in the left. Mr. Lawson treated the pterygium in the right eye by transplanting the apex of the growth from the cornea to the conjunctiva in the lower region of the eye. This operation is easily and rapidly performed, and the result most satisfactory. The man suffered only a few days' inconvenience from the operation; the pterygium in its new locality steadily shrunk away, and has never since given any annoyance. The pterygium in the left eye, which four years ago was very small, had now considerably increased, and it was for the purpose of having this eye similarly treated that the man again applied to the Hospital. Mr. Lawson accordingly adopted the same method of transplantation, and in a week the patient was able to return to his work.

The great advantage which transplantation of the pterygium offers over excising the growth is, that there is no loss of conjunctiva, and consequently no cicatrix on the inner side of the eye to cause a limitation of the movements of the globe outwards.

EDINBURGH ROYAL INFIRMARY.

UNUNITED FRACTURE OF THE HUMERUS, SUCCESSFULLY TREATED BY RESECTION.

(Under the care of Professor SPENCE.)

James W., aged 40, labourer, admitted into the Royal Infirmary, March 7, 1871, suffering from an ununited fracture of the humerus. The original injury was sustained twelve weeks before admission, from a fall upon the ice. The limb was set, but never united. Patient is a healthy-looking man, but of rather intemperate habits.

March 21.—To-day Mr. Spence made an incision, three inches in length, over the seat of fracture, exposed the ends of the bone, and, without removing them from their bed of soft parts, cut off with the bone-pliers the rounded extremities of the bones. The arm was then put up in rectangular splints. It need only be remarked, further, that the wound healed well, without a single bad symptom supervening. The discharge was never copious, and the bone showed a great tendency to unite from the first.

On May 9, "wound almost healed; bone quite firm; patient gets up every day."

A few days subsequently he was sent to the Convalescent House, with the splint still applied, instructions being given him to make passive movement of fingers and wrist-joint. After being at the Convalescent House he returned to show himself. The bone was firmly united; the thickening considerable. He feels it quite strong, but the movements of the elbow are not yet free.

He was dismissed, but strictly enjoined to continue passive motion and the use of the warm douche, as he had been doing whilst in the Hospital.

Remarks.—The foregoing case affords a favourable example of the good results of a method or modification of resection in cases of ununited fracture, which I first practised in a case of false joint of the humerus in 1854, which was published in the *Edinburgh Medical Journal* for that year. In regard to that case I remarked:—"In deciding on resection of the ends of the fractured bone, I determined to remove no more than the rounded and atrophied ends, and to do so with as little disturbance of the surrounding parts as possible. . . Having often observed in cases which had come under my notice, in which resection had failed, that fully two inches, or even more, had been removed, it always seemed to me that not only the amount of bone thus removed, but also the great denudation required to effect its removal, might account for the failure, besides increasing the risk of severe constitutional disturbance." The principle of this method of resection is one in which I have great confidence; and considerable experience in performing it since 1854 has confirmed me in the opinion I then formed.

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Medical Times and Gazette.

SATURDAY, JUNE 22, 1872.

SCHOOL DISEASES.

A much-esteemed foreign correspondent sent us, some little time ago, a copy of Dr. L. Guillaume's treatise on school hygiene, believing that it might be usefully made known to the functionaries now employed in promoting elementary education in England.(a) Hence we have great pleasure in making known its merits as a guide on many points that should be attended to in the construction and management of schools—the aspect, the warming and ventilation, the height

(a) Hygiène Scolaire: Considérations sur l'Etat Hygiénique des Ecoles Publiques. Par L. Guillaume, Docteur en Médecine, Membre de la Commission d'Education de Neuchâtel. 2ème ed. Genève and Paris: J. Cherbuliez.

depth and breadth of desks and forms—on all of which matters Dr. Guillaume is clearly of opinion that the education of the young is materially smoothened by whatever makes education physically more healthy and comfortable.

What we desire to bring before our readers notice now, however, are some short comments on the sins which our systems of education often perpetrate on children of tender age, and on the hecatombs of children who must have been sacrificed to this modern Moloch in the last three centuries; and we take Dr. Guillaume's statements as our basis, because his evidence, coming from a country to which we are wont to look as to a model, is the more emphatic and above suspicion. Who is there, that cares for children, who can fail to be touched with the following passage?—

"I think," says Dr. Guillaume, "that the habit of making children of from 7 to 10 years begin school at eight o'clock in the winter is deadly and tyrannical. These poor little creatures, hastily wakened, with an insufficient breakfast, may be seen running to school scarcely washed and combed, hastily bolting, as they run, the remains of their meal, and trembling with the fear of being too late. Very often the schoolmaster, worried by their late arrival, shuts the door against them: then they may be seen timidly clustered on the threshhold, exposed to the bleak wind, till a hard and scolding voice bids them come in, and gives them a punishment-task as they enter, perhaps making them stand upright in a corner. Then suppose such children, whom their evening lessons may have kept up late, thus deprived of their morning sleep, fatigued and hungry and depressed by punishment: how can they lend a ready ear to their teacher? The extra tasks inflicted on laggards are the more reprehensible, as they fall to the lot of weakly children, to whom longer rest and a leisurely breakfast are essential. All punishments which consist in obliging a child to maintain a forced attitude, which cause veritable torture to a muscularly weak child, ought to be suppressed."

Not only, according to our benevolent Doctor, does school begin too early, but the hours are too long. The blood becomes impoverished and the brain irritable, both of pupils and master. "*Hungry belly has no ears.*" That is a proverb that holds good everywhere. Even the *hum* of the school—*le babil et le bruit*—gives place to a sullen silence till twelve o'clock strikes, when the scholars hurry off to gobble up their dinners; often compelled by the rules of the school to begin work again at one.

Dr. Guillaume protests against the quackery which would multiply the number of subjects taught. Scarcely, he says, has any branch of human culture become sufficiently emancipated from doubt to become a branch of "science," so-called, than some fanatic proposes that it shall be added to the school curriculum. We have remonstrated against the absurdity of physiological lessons in a school where the scholars do not understand "literary," much less "scientific," English. Dr. Guillaume says that an attempt has been made to have "shorthand" added to the Swiss curriculum. Fewer lessons, but a more profound and leisurely way of teaching, are recommended. Competitive examinations on a multiplicity of subjects are denounced, with the diseased emulation and feverish application which attend them; and which are sure to produce those precocious and self-satisfied prigs whose heads, as Dr. Guillaume says, are stuffed with historic dates, but who lack personal activity, vigour, spontaneity, and *sève*—in fact, a set of human abortions who are rotten ere they are ripe. St. Vitus's dance is not unknown as a result of the strain of these examinations. Pauses are recommended between different lessons. Holidays need not be so absurdly long as they are if the school work were less intense. Home tasks, which poor little children are compelled to do in the evenings in addition to their school attendance in the day, are sharply criticised: so is the practice of requiring clean copies of tasks, and of setting arithmetical sums of impossible dimensions, and altogether alien to the demands of practical life. Who is ever compelled to add or multiply figures of ten or twelve places? The custom of requiring long and abstruse passages of the Bible and Catechism to be learned by heart, the dry and unpractical mode of teaching history and geography, all of which form parts of the *home tasks*, are also condemned. Dr. Guillaume's chapter on punishments is that which will cause the most disagreeable surprise to those persons who look upon "Continental" systems of education as models. Schoolmasters and mistresses are formally forbidden to inflict corporal punishment; yet, says Dr. Guillaume, this injunction is but too often disregarded. In fact, he candidly confesses that the rod is the logical result of the existing curriculum; that without it the requisite quiet and appearance of attention during the long school hours cannot scarcely be maintained; and that the true mode of diminishing punishment is to make the lessons less fatigning to teachers and pupils. Boxing the ears, pulling the ears till they are torn, pulling the hair till it comes out, rapping the knuckles with a cane (for bad writing!); humiliating punishments, such as making the children stand as objects of ridicule, making them kneel "during whole hours" on a sharp-angled piece of wood; the "black hole," cold in winter, suffocating in summer; "keeping in" after school hours, so as to deprive the culprit of exercise and food; tasks to be done at home, such as writing out the word "*paresseux*" four or five hundred times—are evidently used in the Swiss schools, and are all condemned as useless for the purpose, and as tending to harden rather than to reform the culprit; moreover, they are sure to fall to the lot of the weakliest children, and of the poorest, whose parents would dread being brought into conflict with the school authorities. All the existing punishments, says Dr. Guillaume, are hurtful to health and character; the best means would be the deprivation of some little indulgence—but then there are no indulgences to deprive them of. School boards are slaves to routine, and oppose every reform, even that of giving backs to the seats. Short sight, muscular debility, crooked spines, bleeding at the nose, headaches (*cephalalgies scolaires*), and goître (*goitre scolaire*), are diseases which the Swiss system of education is accused of producing. The great inference we draw is, that there are a multitude of children too delicate for the rough, old-fashioned modes of teaching, discipline, and punishments.

THE CONJOINT EXAMINATION SCHEME IN SCOTLAND.

We understand that on Friday, June 14, the Senatus of the University of Edinburgh resolved to have nothing to do with the proposed scheme for a Conjoint Examining Board for Scotland. This determination of the Senatus must be admitted to be equivalent to an entire disruption of the whole scheme of Conjoint Examinations as far as Scotland is concerned; for a Conjoint Board of Medical Examination in Scotland without the University of Edinburgh—*par excellence* the great British Medical Teaching and Licensing University—would be comparable only to the play of *Hamlet*, with the character of the Prince of Denmark omitted.

On reflection, we cannot but affirm that the Senatus of the University of Edinburgh has acted wisely, and with a due consideration both for the interests of the University and of Medical education in this matter. The arguments for a Conjoint Board for each division of the kingdom, which would constitute an equivalent and worthy portal to the Medical Profession for each, remain indeed unaltered, and must be allowed to be weighty. But it has long been quite clear that the thing is simply unattainable without legislation. On the other hand, the arguments for a Conjoint Examination, although weighty, are confronted by other arguments against it, which gather force on scrutiny, and which become overwhelming against a partial scheme or any proposal that would set up and continue a different standard of examination in the three kingdoms.

If the English scheme were a complete one—which it is not; if its machinery were perfect, or its chief advocates agreed

upon the purposes to be fulfilled by it—which the recent debate of the Fellows of the Royal College of Physicians has proved is not the case—the establishment of one Board for England, whilst Scotland or Ireland hold aloof, or only set up a sham supplemental examination to satisfy the demands of the General Medical Council, would be most detrimental to the interests of Medicine, both as a science and a profession. It is not for the interests of Medical teaching or progress that a student should have to pay in England the full price of examinations conducted by a complete Conjoint Board in every subject of Medical education, besides a large pecuniary fee; whereas his next-door neighbour would be at perfect liberty to go to Glasgow, pass the pleasant and cheap examination of the Faculty of Physicians and Surgeons of that canny city, and get a licence from the College of Surgeons of Edinburgh, including the *imprimatur* of the Conjoint "practical" Examiners, for one-half the expenditure of money, and we will not say how much less of brains. To encourage or inaugurate such a system of Dutch auction between the three kingdoms would be a crime on the part of the General Medical Council, for which the repeal of the Act of 1858 would be a light punishment.

We therefore can only applaud the Senatus of the University of Edinburgh for openly declaring its dissent by the position it has taken up—for saying in effect that the movement as at present directed is a false one; that it can lead to no good, but must only be productive of harm to the Profession and to the public; and that it (the Senatus) refuses to part with the ancient privileges and rights of the University of Edinburgh—privileges and rights which have been confirmed to it by the Act of 1858, and used since its foundation for the benefit of the whole civilised world—as a price for, at the best, a very partial and unsatisfactory co-operation with other Medical Examining Bodies, and in order to institute an examination which will be an additional burthen and an insult to the students who have graduated in the University, and which will not in any degree be equivalent to or represent the expensive and elaborate system of Conjoint Examinations which it is sought to establish in England.

Before, however, quitting the subject we may furnish our readers with a sketch of some of the arguments which we may presume led the Senatus to arrive at its recent decision. The first one which presents itself is the depressing effect which the establishment of a theoretically equivalent Conjoint Examining Board in each of the three kingdoms may possibly exercise on the standard of Medical education. The examination of the Conjoint Examining Board being a common portal through which all students would have to enter the Profession, it must necessarily be a minimum examination. Its standard could not be higher than that which can be reached with moderate effort by students who possess neither the advantage of genius, talent, extraordinary industry, or money to help them in the acquirement of knowledge. It will confessedly be a minimum test for a mere licence to practise. All will be obliged to pass it, and the obtaining of any higher qualification will be purely optional, voluntary, and unnecessary—in fact, a work of supererogation. It is impossible to deny that a depreciation in the standard of Medical education may be a very probable result of such a measure. All honourable rivalry between Examining Bodies for the maintenance of the value of their degrees will be practically at an end, for those degrees will only be sought by the select few, who, in consequence of the possession of larger pecuniary means or higher connexions, may wish to be decorated with commercially useless honours. In a country like Scotland, where a very large proportion of the whole of the Medical students become pupils of one of the three Universities, to which a Medical school is attached, and where, therefore, there is a healthy rivalry maintained both between the Universities and students—where, moreover, students, as a rule, are not of a wealthy class, and have no money to waste on unnecessary diplomas—it is clear that in a great majority of cases the minimum examination of the Conjoint Board will be made to take the place of the University degree. Such a change can hardly be introduced without at least a danger of deteriorating Medical education, and consequently Medical science, throughout the country. In the case of Scotland, students who determine to obtain both a University degree and to pass the Conjoint Examination, would be subjected to more examinations than at present. In other words, in their case there would be an increase of the very evil which the Conjoint Examination Scheme was intended to remedy.

An argument in favour of a Conjoint Scheme has been found in the fact that in the Scottish Universities the Professors who teach are also the Professors who examine. This, if it be so, is a system which has many advantages—such as that the Professor who has taught is the best judge of what the student ought to know; and his personal knowledge of the student may often be of great avail in coming to a just conclusion in a doubtful case. That there are disadvantages in the plan we are fully ready to allow, but these are, or may be, completely removed by the provision of the Scottish Universities Act, which provides that assessors unconnected with the University, and appointed by the University Court, should take a part in all examinations.

Again, the General Medical Council is responsible for the efficiency of all examinations conducted by the present Licensing Bodies. This is a truth which cannot be too clearly borne, in mind in these discussions. The General Medical Council has the power of visiting and inspecting all examinations. The slight experience it has already had of the value of this power which was given by the Act of 1858 is more than sufficient to show that it is fully equal to the requirement of keeping examinations at a high point of excellence. It is much to be regretted that this Scheme of Conjoint Examining Boards has been permitted to divert the Council from the exercise of the highest and most useful function the law has placed in its hands.

There is one argument against a Conjoint Board which applies especially to the cases of Scotland and Ireland. It is that which may be called the argument of locality. Take the case of Scotland, for instance. Three of its Universities are situated in three great towns, in each of which there is a large Medical school—Edinburgh, Glasgow, and Aberdeen. In each of these Universities a large number of Medical students is educated, and can obtain the highest Medical degree. They are situated far apart. If, then, their students are all to be reduced to the necessity of passing one Conjoint Board, one of three things must happen: either two of the Universities—say Glasgow and Aberdeen—will dwindle, and become in a short time deserted, and students will flock to Edinburgh, where not only education, but examination is to be obtained—and thus a grave injury and injustice will be inflicted on two British Universities of unimpeachable character and standing; or, secondly, the students will still obtain their education at the three universities, but go to Edinburgh alone for examination—in this way an injustice of extra expense and trouble and annoyance will be inflicted on the student; or, thirdly, the Board of Examiners may be peripatetic, and visit each of the Universities in turn—a plan which would be a very expensive one, and the expense of which, having to be provided for by the fees for examination and licence, will again inflict an injustice on the unfortunate student.

Lastly, in the case of the University of Edinburgh, there is the fact that a large number of the students who graduate at Edinburgh come from the colonies and foreign countries. It is manifestly an injustice for the General Medical Council to endeavour to impose on these gentlemen the tax of an extra payment to, and an extra examination by, a Conjoint Board.

We have already expressed our opinion of the Scottish scheme

of a Conjoint "practical" Examination. It is a mere sham, only intended to throw dust in the eyes of the General Medical Council, and in no way equivalent or analogous to the Conjoint Board which was contemplated for England.

From the arguments adduced on both sides we have come to the deliberate conclusion that it is far better that things should go on as they are, with a strict system of inspection of examinations by the General Medical Council, than that the present machinery should be destroyed, and different standards of qualification and examination in different parts of the United Kingdom be introduced of far greater divergence than any that at present exist, or that all grades in the Profession should be abolished by levelling education and examination down to a minimum. A perfect Conjoint Board for each division of the kingdom, with due provisions for the maintenance of its efficiency and standard of examination, can only be obtained by a new Medical Act, and by some public provision for its maintenance, which would make the examiner independent of the fees of the students. This will never be conceded by Parliament and Government unless the examination be made a *bonâ fide* State examination under the direction of some member of the Government for the time being. To any such plan of State interference and State control in the affairs of Medicine there are insuperable objections, and we express our firm conviction when we say there is no such evil in our present system as to render it necessary.

THE MEDICAL ACT AND THE QUACK FRATERNITY.

O'Connell used to say that he could drive a coach-and-six through an Act of Parliament. Certainly, the language used in some of our Acts is so vague that an astute lawyer may be able to make anything of them. This would appear to be the case with the Medical Act of 1858, for magistrates have refused to convict on what would appear to be the clearest evidence, and the legality of their refusal has been confirmed by the superior courts. The 40th clause of the Act runs thus:—

"Any person who shall wilfully and falsely pretend to be or take or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner, or apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognised by law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

Now, at first sight this clause would appear to be perfectly clear and unambiguous. It would be held—looking at the Act in a common-sense light—that a man unregistered, and holding no diploma or qualification that could be legally registered, by assuming a title implying that he was registered under the Act, would be liable to "pay a sum not exceeding £20." Of course if he used the title, knowing that he had no right to do so, he would be wilfully and falsely pretending. The lawyers, however, do not construe the clause with regard to its meaning, but only in regard to its literal sense. Being a penal clause, they argue, such is the duty of the judge. The consequence has been, the 40th clause has been all but a dead letter. A case came before Mr. Knox at the Marlborough-street Police-court on Saturday last, which is one of so much importance that we quote it entire at page 726. It will be seen that the magistrate felt that he had no alternative but to convict Mr. Hamilton, which he did in the mitigated penalty of forty shillings and costs. Now, it is by no means certain that the decision of the magistrate will be confirmed by a superior court; but the discussion of the subject cannot fail of being of great advantage to the public interests. Publicity given to such cases must have a tendency to impress upon the minds of our legislators the vast importance of having laws so framed that they shall act as a complete protection to the public, and not be of that flimsy kind that a butterfly can break through them almost as easily as a coach-and-six.

It is well known that great efforts have been made for some years past to substitute a more stringent, more comprehensible, and clearer clause for the 40th in the Medical Act. It is difficult to understand, if law-makers are really in earnest, what objection they should raise to the proposed clause. If it is not intended to make "a delusion and a snare" of the "protection" clause, then we say the Legislature is bound to make that clause to answer the purpose for which it is intended. Here is the clause which the General Medical Council have proposed to substitute for the effete and unsatisfactory 40th clause of the Medical Act. We cannot understand what valid or just objection can be taken to it, and we trust that ere long it may pass both Houses of Parliament:—

"If any person practising Medicine or Surgery, or engaged in the cure or treatment of diseases or injuries, not being registered under the Medical Acts, takes or uses any of the designations enumerated in Schedule (A) to the Medical Act (1858) as amended by this Act or by any other of the Medical Acts, or the designation of Physician, Surgeon, Doctor, or Apothecary, or any other designation used by or used to distinguish duly qualified Practitioners of Medicine or Surgery, or any class thereof, or the designation of Professor of Medicine or of Professor of Surgery, he shall for every such offence be liable on summary conviction to a penalty not exceeding twenty pounds."

In the meantime the efforts made by Mr. Deakin are worthy of all commendation, and we trust he will persevere in these efforts to put down one of the greatest of our social evils.

THE WEEK.

TOPICS OF THE DAY.

The University of Cambridge has appointed Professor Paget and Professor Humphry representative of Medicine and representative of Surgery at the partial Conjoint Board. As we said last week, we think that this action on the part of the University is entirely premature. The paucity of distinguished available Medical talent in the University comes out very clearly in this election. If the University require a representative in the Medical Council, they have to send Professor Paget; or, when he is made Chairman of the Council, Professor Humphry. If they then think themselves called on to send representatives to this imperfect Examining Board, they have no one to choose but the two same distinguished Professors, one of whom is already in office at the Council of the Royal College of Surgeons, and is known to have greatly influenced the Council in exchanging the independent privileges of the College for this imperfect scheme. Personally, we have the greatest respect for Professor Paget and Professor Humphry; but we cannot think it wise that these offices should all be vested in the same persons. The whole facts are evidence of the folly of placing a University, which grants perhaps half a dozen, or half a score, Medical degrees in a year, in the same position of power with one of the great Medical Corporations.

The case of Booth *v.* Forsyth, recently tried in the Court of Common Pleas, was one in which a druggist of East Greenwich, named Booth, brought an action against Mr. Forsyth, a Surgeon, for slander, Mr. Forsyth having accused the druggist of supplying medicine to produce abortion. As the jury found for the plaintiff, with £50 damages, we may presume they were thoroughly of opinion that there was no ground for the accusation which the Surgeon brought against the druggist. But there were certain matters given in evidence which at the present juncture have great interest for the Profession generally. In the first place, it seems that women are in the habit of buying "pilacotia" to produce abortion; in the second place, it seems, according to the summing-up of Baron Martin, that for a chemist to consult with a patient, and, having heard

the symptoms, to refer to a Physician's work (Dr. Lee "On the Practice of Midwifery"), and make up one of the prescriptions contained in the book, and sell it to the patient for 1s. 3d., is a transaction within the legitimate business of chemists; thirdly, that a chemist may prescribe and sell a lotion containing prussic acid, or sell strychnia to kill bugs, without giving any written instructions; and, fourthly, identify "pilacotia" pills with "the refuse of a chemist's shop—horse physic—refuse of aloes which could not be used in pharmacy." It is also worthy of note that the verdict obtained by the plaintiff seems partly to have been due to the suggestion of the plaintiff's counsel, that the defendant was actuated in making the charge against the plaintiff "by the fact that his practice was more or less prejudiced by the legitimate business of chemists, who were nowadays so much resorted to by the poorer classes."

The rejection of the Birmingham Sewerage Bill at the third reading by the House of Commons is a matter of no mere passing interest. The question of what is to be done with the sewage of our great towns seems as far off being settled as ever. In Birmingham, for instance, where the population is 350,000, and rapidly increasing, the Corporation have been prevented, and rightly prevented, by the Court of Chancery from polluting the river with it. They then resolve to utilise it by applying it to the soil. If this were done by irrigation, the estimate of the land required would be 10,000 acres. They therefore propose to do it by the process of intermittent filtration—a process by which the fluid part of the sewage would ultimately find its way purified to the river, and the solid would mix with the soil. For this 1060 acres of land would suffice. Of this, 300 acres formed part of the estate of Sir Robert Peel, who moved the rejection of the Bill, and, being supported by Sir C. Adderley, Mr. B. Osborne, and others, his motion was carried by a majority of three. Intermittent infiltration is an experiment, and it was probably as well that the House of Commons should not sanction the experiment being tried on so large a scale. The old plan of irrigation was carried out on the principle of obtaining the benefit of the sewage as a manure, and enriching as much land as possible by it; the new plan of intermittent filtration has quite a different object in view—viz., that of getting rid of as much sewage on as little land as possible. The former is philosophical and economical; the latter, if sewage is of value, is wasteful, and its benefits problematical. But we can only regard the rejection of the Birmingham Bill as a temporary respite. The demands of the towns for an outcome are increasing at an enormous rate, and will not admit temporising measures. The water-closet system is being introduced most unnecessarily all over the country, and the result is not difficult to foresee. Sewage to the soil and rainfall to the river is the only philosophical and common-sense principle to meet the difficulty.

Professor Odling, F.R.S., has been elected to the Waynflete Professorship of Chemistry in the University of Oxford, and has been elected to a Fellowship at Worcester College.

Dr. Gavin Milroy has returned from the West Indies, whither he was sent as a Commissioner by Government, on the advice of the Royal College of Physicians, to investigate leprosy and its treatment.

THE NIGHTINGALE FUND.

It is gratifying to state that the fund is in a prosperous condition. The report of the past year states that the building which has been erected for the accommodation of the probationers at St. Thomas's Hospital, and called the "Nightingale Home," comprises every convenience for thirty-five probationers. At the end of the year 1870 there were eighteen probationers in residence. During 1871 thirty-one were admitted, one was dismissed, three resigned or were found unsuited to the work, and eighteen having been recommended to appointments, twenty-two was the number in residence at the end of the year. Further admissions have since taken place, increasing the total number to thirty-three. The Committee call attention to a work recently published by Miss Nightingale, entitled "Notes on Lying-in-Institutions." The facts which are there collected and commented on will explain the difficulties which stand in the way of any scheme for the re-establishment of a school for midwifery nurses, while they at the same time afford the strongest proof of the great necessity which exists for such an institution. The receipts for the year had been £2204 12s. 1d., and the expenditure £1808 2s. 4d., leaving £396 9s. 9d. in hand. The invested funds amount to £53,000.

LIGATURE OF COMMON CAROTID FOR SECONDARY HÆMORRHAGE.

On Wednesday, the 12th inst., Mr. Le Gros Clark operated upon a tumour of the upper jaw. A portion of the growth was so deeply situated as to necessitate a partial excision. Secondary hæmorrhage occurred on Monday evening, when the patient suddenly lost about twenty ounces of arterial blood. Mr. Wagstaffe tied the common carotid artery. Up to the time of going to press the patient was progressing favourably. The carbolised catgut ligature was used, and cut short in the wound. We hope to publish a full account of this case at some future time.

THE HARVEY TERCENTENARY MEMORIAL.

The efforts now being made to form in London a committee to act in unison with the Folkestone Committee give every prospect of eventual success. Within the last few days a sum of £300 has been subscribed; and the Archbishop of Canterbury, Lord Granville, the President and Censors of the Royal College of Physicians, the President of the Royal College of Surgeons, Sir Thomas Watson, Sir Henry Holland, Sir William Fergusson, Sir William Gull, Sir James Paget, Dr. Quain, Dr. Benee Jones, Mr. John Simon, Mr. Skey, C.B., Mr. Curling, Dr. Owen Rees, and numerous other gentlemen, have already notified their support. His Royal Highness the Prince of Wales will be asked to preside at a public meeting at the Royal College of Physicians, kindly offered for the purpose by the President and Fellows. Meanwhile, the Committee are desirous of filling the subscription-list, in order to show the Prince that the memorial, which is fast assuming national proportions, will be worthy of his patronage. We are requested to state that donations may be sent to the Harvey Tercentenary Memorial Fund at the Western Branch of the Bank of England, Burlington-gardens; or to the Treasurer, Dr. Benee Jones, F.R.S.; or to the Hon. Secretaries, Mr. G. Eastes, M.B., 5, Albion-place, Hyde-park-square, London, and Mr. W. G. S. Harrison, Town Clerk, Folkestone.

MANCHESTER MEDICAL SCHOOL AND OWEN'S COLLEGE.

It has been determined to amalgamate the Manchester School of Medicine with Owen's College, now a most important and influential institution. Accordingly, a large meeting of past and present students of the school was held last week in order to form a committee to obtain subscriptions from past and present students, and others interested in the cause of education, towards defraying the expenses of the amalgamation. Resolutions were adopted to effect the object in view, and an executive committee was appointed.

THE NEW GOVERNOR OF INDIA AND MEDICAL STUDENTS.

Lord Northbrook, who has already given evidence of the interest he feels in most matters concerning our Indian Empire, has given another instance of his desire to encourage the arts and sciences. He presided last month at the annual distribution of prizes to the students of the Calcutta Medical College, and made an excellent address to the assembly.

ARMY MEDICAL DEPARTMENT.

THE annual general meetings of the Army Medical Officers Friendly and Benevolent Societies were held on the 30th ult., at the Army Medical Board, Whitehall-yard. On this occasion the actuary's report of the last quinquennial examination of the Friendly Society was presented to the meeting, and proved to be of a highly satisfactory character; so much so, that it was unanimously resolved that the widows' annuities be increased from £44 to £48 for the first class, and from £22 to £24 for the second class. The donations and subscriptions to the Benevolent Society for the past year had been very liberal, enabling the meeting to distribute the sum of £705 among the different applicants.

INDIAN MEDICAL OFFICERS.

SOME misunderstanding having arisen on this subject, and much discussion having ensued, it is now announced that it has been decided that a commissioned Medical officer of the Indian army holding a civil Medical appointment is subject to the rules applicable to other military officers in civil employ, in regard to privileges as well as to leave.

THE MEDICAL OFFICER OF HEALTH AT GLASGOW.

THE Glasgow Police Board have determined to adopt a minute of their Health Committee of April 15. They propose to elect a Medical Officer of Health, who shall devote the whole of his time to the duties of the office, and that Dr. Gairdner should be retained as Consulting Medical Officer at a salary of £100 per annum. "We are not sure," says the *Glasgow Herald*, "that the course adopted is the wisest."

MANSLAUGHTER IN A LUNATIC ASYLUM.

AT the Dublin Assizes two soldier attendants at the Royal Military Hospital were found guilty of causing the death of an inmate. Mr. Justice Lawson, in sentencing the prisoners, said the charge of manslaughter had been proved by overwhelming testimony. "Two cold baths had been prepared for the unfortunate man. He had been beaten, terrified, tortured, and kept under cold water until benumbed and almost suffocated. It was impossible for any man to conceive a more barbarous and shocking procedure than that which had been proved against the prisoners. It was with some truth asserted that no evil passion to which our nature was subject more rapidly gained a mastery of the individual who indulged it than the practice of cruelty and acts of torture. He had often heard of such practices being carried on in lunatic asylums. He had read of them in novels; but he never believed that they existed in real life until they were disclosed to him in evidence. He believed that people in the position of the prisoners were entrusted with too much power; and the Court, to mark its sense of the enormities perpetrated in the present instance, in which the life of a man had been cut short, felt bound to sentence the prisoners each to penal servitude for five years."

PROFESSOR VIRCHOW.

A BERLIN correspondent tells us that—

"Virchow is devoting much more time than formerly to science. He gives a great deal of time to a collection of crania and specimens of bone disease. I believe when the new museum is completed the osteological collection will be the most valuable in the world, in a pathological point of view. Virchow continues to lecture every day, except Saturday, on 'Diseases of Bone,' so you see he is going very fully into the subject. The heat in Berlin is now very intense. They are using Lister's method in the Charité. Dr. Wegener recently made a post-mortem on a male upon whom an amputation had been performed after the manner of Lister, with catgut ligature. The wound healed by first intention, without pus, and no trace of catgut could be found. I may remark the man died of tubercular disease, associated with amyloid degeneration."

SANITARY REGULATIONS IN CHINA.

THANKS to the energy and ability of the Inspector-General of Customs of China, Mr. Robert Hart, we are in receipt of a second batch of half-yearly reports respecting the health of the seaports of that empire. These reports, which are of great value, and ten in number, had their origin in a circular dated Pêking, December 31, 1870. The Inspector-General, in addressing the Medical officers of the various ports, speaks of the importance of obtaining information on various points respecting the public health in the various seaports. Amongst others he particularly invited attention to—(*a*) The general health of ——— during the period reported on; the death-rate amongst foreigners; and, as far as possible, a classification of the causes of death. (*b*) Diseases prevalent at ———. (*c*) General type of disease; peculiarities and complications encountered; special treatment demanded. (*d*) Relation of disease to season; alteration in local conditions, such as drainage, etc.; alteration in climatic conditions. (*e*) Peculiar diseases, especially leprosy. (*f*) Epidemics: Absence or presence; causes; course and treatment; fatality. Other points, of a general or special kind, will naturally suggest themselves to Medical men; what are above called attention to, will serve to fix the general scope of the undertaking. Dr. R. C. Jamieson, of Shanghai, was charged with arranging the reports for publication, so that they may be made available in a convenient form. The ten reports before us are of great value, comprehending as they do many points besides those indicated by Mr. Hart, such as meterological observations, etc. The "Medical Reports" of the Inspector-General of Customs have already been productive of a vast mass of most useful information.

WOMEN-DOCTORS AT ZURICH.

PROFESSOR HERMANN, on conferring a diploma on an English lady, is reported to have said:—"The brilliant result of an examination is not the chief point; it is possible to attain a certain amount of knowledge by mechanical means. The lady Medicals have yet to prove that their knowledge is of any utility to society." M. Hermann added that "so great a concourse of female students at Zurich filled himself and his colleagues with apprehensions, and that so much the more inasmuch as the Government, in allowing free course to the scientific tastes of these ladies, did not at the same time supply the Professors with the means of exerting over them a sure control, and of removing certain suspicious elements." The students greatly cheered the Professor's remarks.

FROM ABROAD.—LYONS *v.* CHLOROFORM—HYGIENE IN FRENCH LYCEUMS.

THE narration of a case in which death occurred while under the influence of chloroform gave rise to a discussion at the Lyons Society of Medicine upon the subject of the dangers of chloroform and the innocuity of ether. Lyons, as is well known, is the only place in Europe in which the inhalation of ether is still preferred and largely practised. Why it should be so it would be difficult to conjecture, there not being there the same historical and national reason which has led to the same preference being still maintained in Boston, U.S.

The present case was not a very strong one to build an argument upon, for the patient might easily have died even if chloroform had not been given, and no post-mortem was instituted. He was an officer who, at one of the battles round Sedan, had, on September 1, his leg completely carried away by a shell, losing much blood, and being greatly prostrated. Amputation could only be resorted to several hours after the occurrence, a small quantity of chloroform being administered on charpie, which quickly induced resolution, without any previous agitation or loquacity or stertor. The operation lasted scarcely three minutes, when the patient was found pulseless, and, after two or three feeble expirations, he died,

the restorative means, which were tried during half an hour, proving of no avail.

M. Desgranges observed that with chloroform even in a state of purity, and in the most skilful hands, there was no security from danger, and the Paris Surgeons operate before complete anæsthesia is established, arousing the patient as soon as possible afterwards. Ether suffices for all operations, and no patients are refractory to it, provided ether at 65° is used—which, indeed, is not obtainable at Paris. M. Diday cautioned the Society not to remain under any illusions on the subject, for, in spite of the goodness of the cause, ether will not triumph until the law or the Legislature intervenes and snatches chloroform from the hands of the Surgeon. One of the members, a little startled at such a conclusion as this, asked M. Diday whether he did not think a law interdicting the use of chloroform would not infringe upon the immunities of the Profession. Ovariotomy might in this way be interdicted, for it produces far more victims than chloroform. M. Diday, however, held firm to his proposition. M. Pétrequin, whose influence has been one of the chief causes of the Lyonnese chloroform-phobia, declared that the Society possessed an authority which it ought to bring to bear on this question, and it must not believe that its prior efforts have been useless. After each of his three works on the subject M. Pétrequin has received approbatory letters from a large number of Practitioners. The fatal results from chloroform have in turn been attributed to impurity, want of skill, or the dose employed, and all without reason. "Chloroform is mortal in itself, and it alone is to be blamed." No preventive measures offer any security, and sometimes the operation put into force to meet these accidents is more formidable—tracheotomy—(for the most part uselessly performed) than that for which the chloroform was resorted to. There has been no improvement in the administration of chloroform since its discovery, while, as regards etherisation, the agent has so improved that rectified ether of 63° or 64° may easily be procured, and the instrument now used is employed with the utmost facility—the operator himself, indeed, being able to watch his patient. The number of deaths which have occurred from it is quite insignificant, so that the Society, if it induce only some Practitioners to abandon chloroform, will have conferred a boon on humanity.

M. Marduel felt somewhat diffident in uttering a discordant note amidst this harmonious pæan in favour of ether; but he could not forbear calling to mind that at Lyons as well as at Boston there had been several deaths from ether. He would not say that chloroform is an innocent agent and does not want more *surveillance* and precautions than ether; but he much doubts whether, if a rigorous statistical account could be obtained, it would not be found that ether in its comparatively small number of applications had given rise to relatively as many deaths as chloroform. Dr. Richardson had to count up 15,000 chloroformations in English Hospitals before he met with a fatal case; and M. Elser, of Strasburg, has practised more than 16,000 chloroformations without a single death. M. Delore, although he has had pretty extensive practice with chloroform, prefers ether because he is then less preoccupied with the anæsthesia. In explanation of deaths from ether, idiosyncrasies must be taken into account, the existence of which nothing could lead to suspect. The deaths that have been recorded as resulting from ether in nowise resemble those from chloroform. They are not so sudden (*foudroyants*), and a certain number of them should be attributed to hæmorrhage, epilepsy, etc. M. Marduel, on the contrary, maintained that several of the deaths from ether had been just as *foudroyants* as those from chloroform. M. Vezu observed that one advantage of ether was that once pure it remained pure; while chloroform, however pure and whatever care be taken, undergoes chemical change.

M. Jules Simon, Minister of Public Instruction, has just issued a circular to the Rectors of the Lyceums of France announcing that in future lectures on hygiene are to be delivered to advanced schoolboys, and furnishing the programme (*vide Medical Times and Gazette*, May 4, p. 520) agreed upon by the Académie de Médecine. After alluding to the reports he had received concerning the fulfilment of his directions as to the teaching of gymnastics, living languages, history, and geography, he goes on to say:—

"With gymnastics are connected all questions relating to hygiene, all that concerns the development of the body and health. Very few persons in France have just ideas on this subject, and I have thought that five or six lectures, delivered at the end of their other studies, would suffice to make our pupils understand that health and strength, in a great measure, depend upon food, clothing, habitations, and a due regulation of life. Five or six lectures will scarcely require five or six hours; and as lectures on hygiene call for no effort of the mind, we may render them compulsory without interfering with the preparations for the examinations. If this teaching be well executed, as I hope, it will prove attractive, and these youths will easily understand its importance. I count upon the good-will of the Medical attendants of our establishments leading them to undertake these lectures according to the enclosed programme. I shall make no apology for this slight increase of labour which I impose upon our Doctors. They are true fathers of family for our pupils, and I am sure will enter upon my views with pleasure."

The following is the programme:—"1st lecture. Hygiene, its object and its means. Atmospheric agents, with reference to their influence on health (air, light, heat, electricity, drought, humidity, and winds); the chief changes in the air (climates, epidemics, and endemics). 2nd: Habitations, with reference to soil, exposure, ventilation, warming, lighting, and cleanliness; clothing as modified by age, seasons, climate, and weather; cosmetics, baths, and cleanliness in general. 3rd: Food—nature and qualities of the different alimentary substances, and their appropriation to temperaments, professions, and climates; the conditions of a good digestion; preserved meats; adulteration and falsification of foods; alimentary regimen. 4th: Drinks—potable waters, their characters and their deteriorations, with the means of preventing and correcting these; the preservation of potable waters; fermented liquids, wine, cider, beer, spirits, tea, and coffee. 5th: Hygiene of the senses—sleeping and waking; intellectual and manual labour. 6th: Exercise and repose; gymnastics; special exercises—swimming, riding, fencing, and dancing.

We have transcribed this as a very good specimen of what persons in Ministerial authority in France believe can be done merely by prescribing that it shall be attempted. We do not know which to pity most—the unfortunate Doctors attached to these schools, thus suddenly called upon to prepare amidst all their other avocations an elaborate course of hygiene, to be delivered to a listless and wearied compulsory audience; or the audience itself, having this tacked on to the end of a laborious term, and, when anxious to prepare for impending examinations, obliged to listen to what must seem to them singularly ill-timed addresses. The career of a French schoolboy has much about it to call for sympathetic compassion, and may offer some excuse and explanation of the wildness of his subsequent student years.

PARLIAMENTARY.—THE BROADMOOR ASYLUM—BIRMINGHAM SEWERAGE BILL.

On Monday, June 17, there was a long conversation on the vote for the Criminal Lunatic Asylum at Broadmoor, which Mr. M. Henry moved to reduce by 15,000*l.*, sharply attacking the management of the Asylum, and contrasting it unfavourably with the general success and economical management of Dundrum Asylum. Broadmoor was warmly defended by Mr. Bruce and Mr. Walter, and, in the end, the amendment was withdrawn.

On Tuesday Sir R. Peel attacked the Birmingham Sewage Bill, which stood for a third reading, in which he was warmly seconded by Sir C. B. Adderley, Mr. Osborne, and Mr. Bouverie. On the other hand, Lord Henley, Mr. Marling, and Mr. Mitford supported the members for Birmingham, Mr. Dixon and Mr.

Muntz, in advocating the Bill, but in the end the arguments against the Bill prevailed, and it was thrown out by the narrow majority of three—148 to 145.

PROFESSOR HOLMES'S LECTURES AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

In continuing his lectures on "The Surgical Treatment of Aneurism in its various forms," Professor Holmes said that the conclusions justified by present experience as to the applicability of Brasdor's operation in innominate aneurism appeared to him to be as follows:—

1. That the distal ligature of the carotid alone, or in conjunction with that of the third part of the subclavian, cannot be trusted to produce the complete consolidation of the tumour.

2. That the natural effect of the ligature of the carotid artery is to produce coagulation in that part of the sac directly connected with the mouth of that artery.

3. That this may suffice practically for the cure of the aneurism when the subclavian part of the aneurism is small and shows no disposition to grow.

4. That in other cases where the mouth of the subclavian artery is previously obliterated by impacted clot, the ligature of the carotid only may effect a radical cure.

5. That for these reasons it is better in any case which appears to require distal ligature to commence with the operation on the carotid alone, and afterwards to consider the propriety of securing the subclavian either in its first or third part.

As to the justifiability of operating on the first part of the subclavian, the Professor made the following remarks:—

The ligature of the first part of the subclavian has hitherto failed on account of the almost uniform occurrence of secondary hæmorrhage. There are dangers in the operation—viz., anatomical difficulties, and the possibility of wounding the sac or of finding the vessel diseased. Still, most Surgeons would allow that if the ligature of a large artery involved little or no risk of secondary hæmorrhage, the operation might be repeated under similar indications to those which would justify any other operation of equal importance. The less or greater risk of secondary hæmorrhage depends on the possibility or impossibility of securing an artery so as to obliterate without dividing it. Now, this has been an object with Surgeons since the first case in which John Hunter tied the femoral for popliteal aneurism; and the methods by which the attainment of the object has been attempted are the temporary ligature, the *presse artère* or acupressure, and the silver ligature. None of these, except the *presse artère*, has as yet afforded definite proof of success, and this only exceptionally.

A case lent by the College of Surgeons of Ireland, showing the obliteration of the femoral by this method for popliteal aneurism, proves, however, that an artery may be obliterated and an aneurism cured without division of the vessel. The only thoroughly satisfactory case of silver ligature is one in which Mr. Holmes employed the wire on the femoral artery for popliteal aneurism. In this instance the wound healed in a fortnight, and though suppuration occurred, the ligature was not discharged from the wound. But silver wire is dangerous, for if tied tightly it cuts the coats of the vessel more deeply, and produces more and more rapid ulceration than the silk thread. In preventing secondary hæmorrhage its use is too uncertain to be preferable to silk. Carbolised catgut, when properly prepared, may be used for the ligature of a large artery with perfect success without dividing the external coat of the vessel or interrupting its continuity, while the ligature itself is absorbed, and the wounds made over the vessels so tied often unite by first intention. This rapid union of the deep parts of the wound is a necessary condition for success.

The Professor then gave the history of the use of catgut for this purpose, mentioning especially the experience and comments of Sir A. Cooper (given in the "Surgical Essays" by Cooper and Travers, and in the 12mo edition of his lectures published in 1829) and of Porta, who gives in his work nine cases in which the operation was performed by himself, and two in which he assisted others. Porta nowhere, however, contemplates the occlusion of the vessel without its division; and, speaking of secondary hæmorrhage, says "that we shall never be able to annihilate its possibility by any method, or to reduce it within the limits which we observe in the lower animals." In the case where Sir P. Crampton used a ligature of moistened catgut in tying the common iliac in 1828, if the catgut had been properly prepared, the ligature tied firmly and cut off correctly, and the wound and the patient been so treated as to produce speedy consolidation of the deep parts, there would probably have been no hæmorrhage.

After referring to Mr. Lister's tract "On Ligature of Arteries on the Antiseptic System," Professor Holmes remarked that, whether Mr. Lister's explanation of his method of dressing wounds be or be not the correct one, that method is very frequently successful in producing rapid union, especially in the deep parts of the wound. This being granted, and as it can be demonstrated that catgut ligature, under favourable circumstances, will gradually melt away in the tissues without causing ulceration, it cannot be denied that the object which John Hunter and his followers so sought after has been discovered. A preparation of the lecturer's own case showing successful ligature of the carotid and subclavian arteries with carbolised catgut, and with no interruption of the continuity of either vessel, was exhibited. This specimen affords anatomical proof that a large artery in the human subject may be tied in such a manner that the wound may unite by first intention, and the patient never be in any danger of secondary hæmorrhage; and, further, the case shows that the catgut ligature may be removed by absorption, the vessel remaining undivided. Mr. Holmes expresses his opinion of the carbolised catgut in these words:—"No material can be imagined better adapted for a ligature than catgut long steeped in carbolised oil; it is perfectly tough, perfectly flexible, and perfectly smooth. It excites no irritation, absorbs no putrescent fluid, and, though it gradually melts away, yet holds the artery firmly enough to close its tube permanently. Having used it in all large operations for about two years, I can testify to the latter fact, and I can say that I have never seen any sign of irritation produced by it, nor witnessed the escape of any of the little knots from the wound, and that I hold it to be a very much better and more convenient hæmostatic than torsion, and infinitely superior to acupressure. In fact, I have found it to possess all the comfort of the silk ligature, without its disadvantages. I do not, however, imagine that catgut or any other ligature can be applied to an artery with perfect success unless the tissues around become rapidly coagulated by first intention. An artery exposed in the middle of a suppurating cavity will, I believe, always soften and give way, and it was most probably because they failed to secure this prompt union of the deep parts of the wound that Porta in most of his experiments and operations, and Sir A. Cooper in the operations which he performed after his first successful one, failed to obtain this perfect result." The inference, then, is that the subclavian may be justifiably ligatured in the first part of its course in those innominate aneurisms which advance after distal ligature of the carotid.

The applicability of the distal operation in the treatment of aortic aneurism, and the probable reasons of its beneficial effect in this form of the disease, were next discussed. With respect to the ligature of the left carotid for aneurism of the arch of the aorta, there is no doubt that there are cases in which it is very beneficial, though there are no theoretical grounds for believing that cure can be effected by this operation. The beneficial result no doubt is produced by the obliteration of that part of the sac which was previously distended by the current of blood passing into the left carotid. When, then, the growth of the tumour can be traced upwards towards the trachea on the left side this operation is indicated, and when on the right side the distal operation on the same side will suggest itself. Finally, the treatment of aortic and mixed aortic aneurisms by galvano-puncture was considered, and the difference in the clot produced in any albuminous fluid according as the positive or negative pole is used was mentioned; the positive pole producing a firm coagulum, and the negative a large frothy mass formed of minute coagula.

Mr. Poland's summary of Abeille's case proves that the clots produced by electricity may be as efficacious in the cure of an aneurism as those produced by other means; but it must be allowed that there is at present much uncertainty as to the value of the method, and as to the effects of any given operation, and many details as to the method of employing this agent have to be cleared up before our estimate of the value of it can be formed with certainty. Professor Holmes is disposed to think that both poles should be used, that the action should continue for a considerable time under anæsthesia, and that the needle should be partly coated with vulcanite, so as to defend the soft parts covering the tumour. The uncertainties connected with its employment, however, are sufficient for discarding

electro-puncture in cases of aneurism of arteries accessible to pressure or ligature, as these methods are safer and more reliable.

REVIEWS.

The Origin of Cancer, considered with reference to the Treatment of the Disease. By Campbell De Morgan, F.R.S., Surgeon to the Middlesex Hospital. London: J. and A. Churchill. 1872. Pp. 87.

A small book, thoughtful, and elaborately argued. The issue is, whether operations on cancerous tumours are expedient and beneficial. The author affirms that they are, because he believes cancer in its origin is local—like one ill weed that may have sprung up in a garden—and that it ought to be extirpated before it has had time to scatter its seeds broadcast; for if allowed to do so, it becomes a "general" or constitutional or infecting disease in good earnest. As to the local origin of cancer, Mr. De Morgan pleads against the notion that it is a blood disease manifesting itself in a part, just as gout is a blood disease manifesting itself in the toe. He admits that cancer is very often hereditary, but denies that the "terrible grasp" of the disease, the difficulty of eradicating it, the outburst of tumours in various parts of the body at once, and the so-called cachexia, are sufficient evidence of its inherent primary constitutionality. The constitutional character which the author admits is an inherent congenital tendency, which may be inherited—just as anyone may have a tendency to warts, or fatty tumours, or wens. The difference is, that a fatty tumour has no tendency to "infect"—*i.e.*, to diffuse its elements over the body—whilst cancer has, each tumour being as much constitutional at first as any other in its origin, but differing in the accidents of its structure. "The general conclusion at which I should arrive," says Mr. De Morgan, "is, that in some persons and in some parts there is a tendency, local in its origin, to the formation of tumours; that this tendency may in some have been implanted in the tissue, even in its embryonic condition, though the actual development may not take place till years after birth—in others, although there may be a disposition to morbid growth, the actual tumour will not be developed unless under some irritation; that the morbid growth having once taken place, it will remain localised or become diffused in proportion to the facility with which its elements can be taken up and carried off by the structures amongst which it lies; that the period during which these elements may remain dormant is indefinite; that, save in degree, there is no real difference between the malignancy of cancer and of some other forms of tumour; and that even the line between malignant and non-malignant growths is not clearly defined. I should place cancer, then, at the top of a scale, at the lowest point of which might be placed the simplest forms of outgrowth, identical in structure to the affected parts." There is in this statement nothing that has not been before the Profession these twenty years. The lesson it reads is, that a Surgeon of considerable powers of invention and great experience in this particular disease falls back upon early and ample operation with care to eradicate every possible germ of the disease, as the wisest and most merciful plan. Mr. De Morgan has full experience of the various plans in which the knife is replaced by what is infinitely more cruel; and his work produces the impression of the vast superiority of the confession of an honest man that he can do little good over the pretensions of the charlatans, whose "tender mercies are cruel," as Solomon said.

NEW BOOKS, WITH SHORT CRITIQUES.

Our Lord's Miracles of Healing, considered in relation to some Modern Objections and to Medical Science. By T. W. Belcher, M.D., M.A., Master in Surgery, Trinity College, Dublin; Fellow and sometime Censor, Examiner, and Chief Librarian, Royal College of Physicians of Ireland; Curate in charge of the Mission Church and District of St. Faith, Stoke Newington. With preface by the Most Reverend Richard Chenevix Trench, D.D., Lord Archbishop of Dublin. London and Oxford: James Parker. 1872. Pp. 168.

*** We well remember Dr. Belcher's early essays on the "Nature and Treatment of Fever," and the promise they gave of a successful Medical career; and we must concur in the admiration which Archbishop Trench expresses at the self-devotion of a man who can exchange the practice of Medicine for the obscure position of a missionary amongst a depraved suburban population. Of the book itself we would rather not speak, as we doubt if the writer has given the full study and consideration to the subject which it demands. Such a book is unnecessary to the true Christian, whose faith is founded on a Rock—not to be disturbed by any petty difficulties of detail. A discussion of particulars would not be suitable to our pages; but we would respectfully call the writer's attention to the case of Surgical injury at page 163, and to his commentary at page 164, which is contradicted by the experience of every Surgeon, and the authority of every book, and the treatment of every Hospital. We are sorry to speak thus disparagingly of a work which we should gladly praise if we could; but Criticism must be honest, or else hold her tongue.

Timely Counsel and Short Essays on Social Subjects. By Surgeon-Major T. Atchison, M.R.C.S.E., etc., H.M. Bengal Army. Second Series. (Pamphlet.) London: Richards. 1872.

*** A set of dashing, trenchant essays, by the writer whose most useful suggestion of "encampments" for the isolation of small-pox and cholera patients will not have been forgotten by our readers. In this series he pleads for freedom to visit wild scenery, condemns that demoralising penny-seeking habit which marks the idle classes of sea-side denizens, and pleads for opening the London squares, and for preserving historic remains. He combats Mr. Oldham's theory of the non-existence of malaria, and gives some weighty remarks on the alliance of variola and vaccinia. We except an article on the clergy from our commendation; for, to speak mildly, it does not exhibit the writer's good taste and charity.

Livret de Spencer Wells pour les Cas de Tumeurs des Ovaries et de l'Abdomen. Traduit de l'Anglais par le Dr. Gustave Boddaert, Chirurgien-Adjoint de l'Hôpital Civil de Gand. Gand: Hoste. Paris: Baillière. 1872. Pp. 32.

*** This is a French version of the little "Note-book" in which Mr. Spencer Wells enters every point in the previous history, the treatment, and the results, of every patient who comes under his care for abdominal tumour. The advantage of such a note-book, with its copious blank forms, is that it suggests to the Practitioner the various inquiries which he ought to make, and supplies him with convenient forms for filling in and tabulating the results. The translation has a highly complimentary preface, and does justice to the great success of Mr. Wells as an operator, and more especially to the increasingly favourable results of each series of cases.

A Handbook of Medical Microscopy. By Joseph G. Richardson, M.D., Microscopist to the Pennsylvania Hospital, etc. Philadelphia: J. B. Lippincott. London: Trübner and Co., 60, Paternoster-row. 1871. Pp. 332.

*** This book begins with a chapter on the microscope, and another on auxiliary instruments, manipulations, and reagents. This part is cleverly done, and whilst, of course, adapted to American readers and describing American instruments, shows the author to be well acquainted with instruments and observers on this side of the Atlantic. Then comes a series of chapters on the examination of the urine, pus, blood, discharges, Medico-legal questions, and morbid growths, in which, together with full instructions for the microscopic investigation, there is a good deal of information as to the nature and treatment of the diseases referred to. The author justly expresses his obligations to Beale, G. Harley, Roberts, Hughes Bennett, and McCall Anderson, and shows that Medical microscopy is in a very advanced condition in the United States. He gives especial praise to the microscopic photography of the War Department, whose sumptuous reports have often been held up by us to the admiration of our readers.

The Fallacies of Teetotalism, or the Duty of the Legislature in Dealing with Personal Freedom; and an Elucidation of the Dietetic and Medicinal Virtues of Alcoholic Liquors: comprehending an Exposure of the False Doctrines of the United Kingdom Alliance, and of the Detestable Tyranny of the Maine Law or Permissive Bill. By Robert Ward, Editor of the *North of England Advertiser.* London: Simpkin, Marshall, and Co. Newcastle-on-Tyne: R. Ward. 1872. Pp. 410.

*** Mr. Ward is more than a match for his teetotal antagonists, and successfully controverts most of the positions of the "United Kingdom Alliance." In particular, he shows with unanswerable force and great vivacity that whilst teetotalers carefully treasure up and parade every instance of crime committed by persons under the influence of liquor, they obstinately ignore, not only the palpable good effects of alcoholic liquors in debility and disease, but the good moral effects, the

reconciliation of estranged friends, the promotion of good feeling and kindheartedness which ensue from a temperate use of the "glass." In treating of the dietetic virtues, he takes the common-sense view, without entangling himself in the question, more curious than useful, whether alcohol is "food." His philosophy is that of King Solomon and the other Biblical writers, and of St. Jerome, to the effect that whilst persons in health, strength, and spirits may reasonably abstain from wine as unnecessary, the feeble, sick, and downhearted may derive infinite good from it. We must remind Mr. Ward, however, that there is one thing more tyrannical than the American Maine Law, and that is the English Poor Law; and if the ratepayers of any district find that destitution and poor-rates are enhanced by tippling, they have a perfect right to suppress both if they can.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, June 18.

Death of Dr. Adolphe Richard—Medical Men and the Commune—Paris Beggars—Decrease of Population in France—Bullock's Blood in Anæmia.

It is with deep regret that I announce the death of Dr. Adolphe Richard on the 12th inst. He was born on June 13, 1822, and was the son and grandson of the illustrious men who bore the same name. Both his immediate ancestors were Professors of Natural History at the Faculty of Medicine; but he and his brother preferred the more extensive field of the science and art of Medicine and Surgery. Adolphe took to the latter, and his brother Xavier is a distinguished Physician now practising in Paris. The attainments of Adolphe Richard were of a very high order, and his death is a great loss not only to science, but to the Profession at large. He was—besides being a thorough scholar—an accomplished Anatomist and Surgeon. At a very early age he became Assistant to the Professor of Anatomy, and subsequently Dissector at the School of Medicine. In 1853 he obtained by *concours* the sub-Professorship, and was appointed Hospital Surgeon. He was for his distinguished services rewarded with the title of Chevalier de la Légion d'Honneur, and was for a long time attached to the Hôpital Beaujon; and whilst in the active performance of his duties there he was (about two years ago) struck with the melancholy affection which put an end to his brilliant career. He was the true type of a French gentleman, and appeared much younger than he really was. His malady is attributed to over-study, and to the sore disappointment he felt at not being appointed to the Chair of Surgery, for which he presented himself as a candidate, and which M. Dolbeau, his junior, now fills at the Faculty of Medicine. This was too great a blow for him, and he had never since been the same man. He was the author of a most excellent work, entitled "Pratique journalière de la Chirurgie," which was published in 1868. It is a most practical work, and contains observations of his own Hospital and private practice. His funeral took place on Friday, the 14th, attended by several Professors of the Faculty and not a few of his pupils, and a most touching discourse was pronounced over his grave by Dr. Guibourt, one of his greatest friends and admirers.

You will have seen, by the newspapers, that a Dr. Pillot was lately convicted as an accomplice in the murder of hostages and in the burnings that were perpetrated by the Communists last year; but as there were "extenuating circumstances" in his favour, and owing to his advanced age (he being 63), he was condemned to simple imprisonment for life. I have not been able to ascertain what this man's calling was, but he certainly did not belong to the Medical Profession; and, if I speak of him here, it is to repudiate the fellowship of such a monster. He appears to have been one of those restless characters so commonly seen in France, and before becoming a member of the famous Commune he had several times been condemned for political offences. Almost every calling in life was represented in the ranks of the Commune—even the clergy; but, to the honour of our Profession be it said, not one of its members, as far as I am aware, joined the lawless set. The names of many respectable Physicians and Surgeons were borne on the strength of the Commune, but this was done without their will and consent, and without acting under their orders or pay they afforded Medical and Surgical aid to all who required their services in a most disinterested manner and without reference to position or creed.

Paris is just now so thronged with beggars that the Prefect of Police has added to his staff a Medical officer, whose special duty is to examine the blind and maimed so as to prevent imposture; but I would suggest the more salutary measure of sending all away to their native town or village, where they ought to be supported at the public expense, and thus relieve the already overcrowded capital to which workmen and others flock to obtain a livelihood. Among the maimed may be seen a number of armless and legless young men, the greater part being no doubt victims of the late war and insurrection; but, as they are otherwise strong and able-bodied, it strikes me that they may in some way be utilised for the public good. I would therefore venture to submit this as a problem worthy the consideration of political economists.

But while Paris is being thronged the authorities are alarmed at the decrease of the population throughout France from causes independent of the war, but said to have existed for the last twenty years. This period has been maliciously fixed upon as corresponding with that of the Empire, to which, besides other misdemeanours, the vile practice resorted to for limited population is ascribed. A certain Deputy lately went so far as to declare in open assembly that the republican form of government was the most favourable for the propagation of the species. How he came to this absurd conclusion it is not for me to say; but the worthy Deputy lost sight of the fact that there was one monarchy at least in the world in which the subjects were as prolific as any people can be, and, notwithstanding the efforts of the followers of Malthus, who lived before the Empire, these subjects carry out the divine precept, "increase and multiply"—the sovereign and royal family setting in this respect the best example. I need hardly say I here refer to old England. But, according to a report lately submitted to the Academy of Sciences by Dr. Decaisne, England is not the only country that has the advantage over France in this respect; and the latter has only to compare her population with that of other States, and she will find that she stands lowest in the scale as regards the fecundity of marriages, the number of births, and the proportion of these to deaths. Taking Prussia as his standard of comparison, Dr. Decaisne has found that in that kingdom to 100 marriages there were 460 births, whilst in France there were only 300; in the former country the number of births annually to each 100 inhabitants amounts to 398, whereas in France it is only 255; and, lastly, the proportion of births annually to each million inhabitants in Prussia is 13,300, whilst in France it is only 2400. These figures speak for themselves, and the cause of the progressive depopulation of France must be sought elsewhere than in the particular form of government.

In my last I mentioned as one of the results of the late war the discovery that France was the most favoured country in Europe. I have now to announce another, and that is that "the Prussians are not Germans." The French have discovered not only that the Prussians are not Germans, but, at a meeting of the Anthropological Society, it was shown by no less an authority than M. de Quatrefages that they were not even Europeans in the strict sense of the term; they are Asiatics, and belong to the Mongol race. It is therefore preposterous, he added, to talk about German unity, and still more so to constitute nations or political groups on ethnological grounds.

In the practice of Medicine, as in other worldly matters, certain things are in fashion for a certain time. Bleeding and mercury have had their day, cod-liver oil and chloral hydrate are already on the wane, alcohol and bullock's blood are now in vogue among the Parisians—the former for fevers and all inflammatory affections, and the latter for anæmia and pulmonary phthisis. It is a curious sight to see the number of patients of both sexes and of all ranks and ages who flock to the slaughter-house every morning to drink of the still fuming blood of the oxen slaughtered for the table. I was struck at the facility with which young ladies take to it, and I have heard many say that they prefer it to cod-liver oil. I shall not enter into any theoretical speculations as to its *modus operandi*, but what I can vouch for is, I know of several cases of anæmia that have been cured, and some of phthisis pulmonalis greatly benefited by the treatment—at least, as much as they would be under cod-liver oil. For the more fastidious, however, a pharmacien has prepared an extract of blood, which is administered in the form of pills, each of which, weighing about three grains, is said to be equivalent to about half an ounce of pure blood.

M. Boussingault, a distinguished chemist, lately read a paper

before the Academy of Sciences, giving an account of his researches on the composition of the blood, and expressed his surprise that, containing as it does all the constituents of a perfect aliment, it is not more generally employed as food. This is a subject worthy the consideration of philanthropists, especially in these days, when the price of meat is everywhere steadily increasing—at least, among the meat-eating population; and it strikes me that the rivers of blood that are daily spilt on the ground in the slaughter-houses might be utilised as food. In Europe, pig's blood is the most generally consumed in the form of sausages, but that of all animals, without distinction, might in this way be more usefully employed. It is well known that in the steppes of South America the natives have for a long time used as food the blood of the animals they chased, which they previously coagulate and season with different condiments.

According to M. Boussingault, of all nutritive substances the blood of animals contains the greatest quantity of iron, and, although varying in different animals, it is in physiological conditions found in certain fixed proportions in the blood. In man, to 100 grammes of blood, M. Boussingault found 51 milligrammes(a) of iron; in that of the ox, 55 milligrammes; of the pig, 59 milligrammes; and in that of the frog, 42 milligrammes. But it was not only in red blood that iron was found: the worthy *savant* detected it even in colourless blood; and after some experiments he found that the blood of snails contained as much iron as that of the ox or calf, and this he thought was sufficient to demonstrate that the red colour of the blood is not due, as is generally supposed, to the presence of iron in that liquid.

GENERAL CESPORRONDENCE.

PUBLIC HEALTH BILL.—MEDICAL OFFICERS OF HEALTH.

LETTER FROM DR. W. WOODWARD.

[To the Editor of the Medical Times and Gazette.]

SIR,—The importance of this subject at the present time will I trust be a sufficient apology for my again troubling you with it. I gave last week three or four reasons why I consider Union Medical Officers are unusually well qualified to undertake the duties of Officers of Health. Allow me to say in addition, that by giving the Union Medical Officers a higher status, the opprobrium which is generally attached to them (and through them to the Profession generally), especially in large provincial towns, will in great measure be removed. I might enlarge on this subject, but will content myself with reminding you that they are about 4000 in number, and represent about one-fourth of the Profession in the kingdom.

To show the importance of some change being made, I will merely remark that in Worcester the death-rate is now exactly the same as it was in the year 1850—viz., 23 per 1000—notwithstanding that we have spent £71,000 or £72,000 in public matters, and are now just landed in a Chancery suit.

The opposition to the Public Health Bill altogether will I am sure be very great, and I trust the Profession will rise as one man and support it. Domestic reforms are generally postponed until *next* session, when war breaks out, or Mr. Gladstone again mounts his political hobbyhorse, or some calamity occurs—when domestic reforms again go to the wall.

We all know the saving of life and money, and other good, which has attended the Contagious Diseases Act (animals.) If Mr. Stansfeld will give us dispensaries in large towns, and make an adequate arrangement for the appointment of Union Medical Officers as Officers of Health, we shall then have a Contagious Diseases Act (human beings), which will doubtless be attended with the same happy result as the former.

Worcester, June 17. I am, &c., W. WOODWARD, M.D.

LETTER FROM MR. J. WICKHAM BARNES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I wish kindly to ask all Poor-law Medical Officers to send me, on post-card, an answer to the following inquiry, mentioning the Union to which they are attached:—

Do you prefer being appointed sole Health Officers under inspectorial supervision of Local Government Boards, or Deputy Health Officers having one of your local Medical men appointed as Medical Officer of Health between you and the Board?

I may take the present opportunity of assuring Poor-law Medical Officers that Mr. Stansfeld has given a complete denial to the erroneous statement which has been made, and which has had the injurious effect of getting up petitions against the Bill, that the additional sanitary duties will not be attended by increased remuneration. I am, &c.,

J. WICKHAM BARNES.

12, George-street, Mansion-house, June 18.

(a) A milligramme is the one-thousandth part of a gramme, which is equal to about fifteen grains.

EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

[To the Editor of the Medical Times and Gazette.]

SIR,—"There must be something rotten in the state of Denmark." The examiners of the Royal College of Surgeons of England are pursuing a course equally disastrous to the College and to the Profession. The rejections for some time past of candidates for their diploma have attracted the attention not only of students, but of their parents and guardians. The number of these rejections has of late been without parallel in the history of the College. When Astley Cooper, Benjamin Brodie, Robert Keate, and Robert Liston were examiners, it was admitted that candidates were not rejected on merely technical points—and I mean by this on microscopical questions, and others equally useless to Surgeons in general practice. How is it, I will ask—and I am prepared to prove the fact—that the best men of the best schools have been rejected? The answer is clear. Either the best men have received honours to which they were not entitled, or some of the examiners of the Royal College of Surgeons of England are not capable to discharge their duties in a manner which is satisfactory to the Profession. I, for one, am so satisfied of this conclusion, that for the future no pupil of mine shall present himself for examination at the College in Lincoln's-inn-fields. I shall send them to the College of the "modern Athens," where I shall know, if they be rejected, it will be on practical and just grounds.

I am, &c., A FATHER.

P.S.—I enclose my card, as a guarantee of good faith.

HAY FEVER NON-ESTIVAL.

LETTER FROM DR. R. BARRATT.

[To the Editor of the Medical Times and Gazette.]

SIR,—A month ago I was requested by a lady, at midnight, to see her coachman, no great distance from my house. I found a married man, of 26 years of age, hardly able to describe his feelings from incessant paroxysms of sneezing, intense lachrymation, and of course much nose-bleeding with it. Veins of head very turgid, conjunctivæ injected, pulse rapid, much dyspnœa, and sense of oppression about heart. With difficulty he asked me to look at his neck, for there I should find an eruption; and also he stated that if he could only lie in bed, his body would be covered with the same eruption, to the immediate relief of his more urgent symptoms; and that this was one of many attacks before during two or three years. Further, he added, "They come on at a minute's notice; I may be mounting the coachbox, and then must give it up." No season of the year gives him impunity from the malady. I prescribed a brisk powder of hyd. chlorid., and some diaphoretics and pot. carbonat. I stated my views to him, and tried to get him to have some prophylactic treatment next morning when I saw him—but no; he was quite well, and "Sufficient unto the day" was his motto.

I have one or two clinical remarks to make. I never in a long experience in town and country saw a counterpart of this case.

I know the mews is healthy and well drained. I know the ill did not arise from any food, as shell-fish, etc. I know he is a temperate and well-conducted young man. And here *certainty* ends, and my theory begins. I should just think it probable some neuro-pathologists might hint, "Malarial miasm somewhere caught your patient."

My opinion is that it is a case of "hay fever non-estival." That he has a *latent susceptibility*, and after opening, as is his duty, hay-bundles from different sources of supply, the pollen of some plant is imbibed, and developes the intensely catarrhal condition of the mucous membranes of head and lungs.

Hitherto I should have believed hay fever never began before June.

The mews is very healthy, and has no kindred cases, and never has had.

The rapid retirement of the symptoms by twelve o'clock next day surprised me as much as the invasion. Had he responded to my advice I should have prescribed empirically arsenic for him. I should add, the eruption was something like urticaria wheals.

I am, &c.,
R. Barratt, M.D., F.R.C.S., etc.

"PITYRIASIS RUBRA."

Letter from Dr. Spender.

[To the Editor of the Medical Times and Gazette.]

Sir,—A letter from Dr. H. S. Purdon on the above subject appears in the *Medical Times and Gazette* for April 20.

I have seen only one case of this rare form of skin disease, and it ended in death after many months of suffering. The following is a clinical sketch of the case so far as it was under my own care:—Mr. K., a gentleman residing in Wiltshire, came to Bath to consult me in September, 1869. His health was then tolerably good, and the skin irritation not extensive; but there were certain tracts over the thigh and abdomen which were very red, and gave rise to a quantity of branny scales. He bathed in the Bath thermal waters on alternate days, and took an effervescing dose of citrate of potash every six hours, and tranquil nights were obtained by a moderate dose of morphia, administered subcutaneously.

After staying a month in Bath he returned home with no decided benefit. Very quickly, with the approach of winter, the redness and irritation of skin increased, both in extent and intensity. Small doses of arsenic were now given, and a sulphur-vapour bath was used once a week, but the suffering was appeased only by subcutaneous injections of morphia, which were resorted to by the patient's friends much more frequently than was at all justifiable. Twice in December, 1869, and once in January, 1870, I had the advantage of a consultation at the patient's house with Mr. Barrett, of Pewsey. Nothing gave any permanent relief, but a weak tar ointment was the best local application. I did not see Mr. K. any more, nor have I ever heard from Mr. Barrett about him; but I learned from other sources that he lingered in much misery, and died, quite worn out, in the spring of 1871.

Bath, June 1. I am, &c., John K. Spender, M.D.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 21.

Mr. Hilton, F.R.C.S., in the Chair.

The Morbid Growth Committee presented reports on various tumours submitted to their examination, including one from Mr. Waren Tay, which was pronounced to be a lymphadenoma; a breast from Mr. Cooper Forster, which was a fibroma; and a specimen from Mr. Squire of recurrent disease of the breast carcinomatous in character.

Dr. Sanderson then exhibited some Microscopical Specimens illustrative of his views on Pyæmia, and to answer objections, especially that some foreign matter had been produced of a septic nature. The liquid from the peritoneum contained minute organisms of a rounded form. This was most intensely active. Bacteria also existed in the blood of the animal whence this was taken. Another slide was intended to show that this was due to ordinary inflammation only. A third showed fluid from an abscess in the thigh of an infective kind; in this organisms were found on removal.

Mr. John Wood exhibited the Genitals and Pelvis of a Hermaphrodite, aged 60. This person had passed as a female all her life; she had been married, but her husband deserted her. The general appearance was feminine, and the mammæ were very well developed. The pelvis was broad, but its breadth was due to eversion of the upper iliac spines. The sacrum was broad. On the whole the pelvis transversely was female, antero-posteriorly it was male. The subject had very large labia majora, and each contained a well-formed testicle. In the median line was a clitoris, or penis, of some size; below it was a cul-de-sac, an inch in diameter and an inch and a half deep. It lay between the rectum and a well-formed prostate. There was a true vas deferens and vesiculæ seminales. The individual died of cancer. The vas deferens ended in the urethra.

Dr. Wilks thought they were hardly justified in calling this person a male, even though testes were found. If these were not developed the individual always remained feminine. There were other cases reported like this.

Mr. Hulke asked if the cul-de-sac was natural or acquired.

Mr. Wood said the testes in this case were well developed. He could not say what was the origin of the cul-de-sac.

Dr. Edwards-Crisp showed some specimens and models illustrative of Tubercle in Fowls produced by vaccination.

Mr. Holmes exhibited a specimen of Melanosis of the Penis spreading down the urethra. The man had been ill for several years. He did well after removal. (Referred to Morbid Growth Committee.) Also, a Tumour of the Scalp, apparently sebaceous in nature and diffuse in character, ulcerating all over. At first it seemed epithelioma, but Mr. Hewitt thought it sebaceous. It emitted a peculiar odour. It was removed; pyæmia followed, and death. Microscopical examination said the tumour was epitheliomatous. (Referred to Morbid Growth Committee.)

Mr. John Gay said he had seen a whole family troubled with sebaceous tumours. One he saw with a tumour on the back; he attempted to remove it, but did not quite succeed. The part took on a malignant aspect, and the patient died.

Mr. Gay also showed a Cyst from the Neck of a lady, apparently sebaceous in character. It mainly consisted of epithelium, and contained some leucin and tyrosin. Also, a Sequestrum from the Tibia of an individual who fourteen years before had broken his leg. Since that time there had been pain, and latterly an abscess formed. He trephined, and found a sequestrum of bone in the centre of the tibia where it had been fractured.

Dr. Crisp exhibited a specimen of Softened Cerebellum. The patient was a lady of middle age, who had suffered from recurrent pain in the back of the neck. She died suddenly, and the roof of the fourth ventricle was found softened. The vessels were plugged.

Dr. Barnes asked if she recently had any children. It had been shown that growths inside the brain sometimes originated during pregnancy.

Mr. Paddon, who attended the case, said there had been no child for twenty-three years; and in reply to Dr. Cholmeley, he said there was no diabetes.

Dr. Crisp showed a specimen of Intussusception from an infant, of which it died. After death he could not pull the cæcum and small intestine from the great intestine, in which they were invaginated, even though no lymph was effused.

Mr. Hutchinson asked what, then, was the reason why he could not withdraw the invaginated portion. In one case he saw the cæcum projecting at the anus. He opened the abdomen, hooked up the gut with his finger, easily drew it out, and the child recovered.

Mr. Arnott exhibited a specimen of Multiple Exostoses removed from the Thigh of a servant girl aged 17. She complained of pain in the knee shooting down the leg. The exostoses were removed by a chain-saw, but the patient did not do well, and ultimately died of erysipelas. There were exostoses on most bones of the body. They could see the structure and nature of such growth in this specimen. It was no outgrowth of the epiphyseal cartilage, as asserted by some; but a kind of cartilage was formed on the surface of the bone, and this ossified.

Mr. T. Smith asked if the patient was rickety, as such growths were not very infrequent in such.

Mr. Arnott said there was no rickety, syphilitic, or other hereditary taint.

Mr. Holmes said such specimens were not very rare. He asked if it were desirable to interfere with them surgically. He had often seen them terminate fatally. Usually they ceased to grow after attaining a moderate size.

Mr. Hutchinson's view was quite the same as Mr. Holmes's. He had seen patients die after the operation, and he would not interfere again. They were not limited to the epiphyseal line.

Mr. Hulke had no reason to regret removing any. He always fixed the knee, and applied ice after operating.

Mr. De Morgan confirmed what was said by Mr. Hulke. It was different when the bursa was interfered with.

Mr. Wood also concurred in this opinion.

Mr. Holmes asked if there was any reason for putting the patient to any risk. He thought not.

Mr. Arnott said he was unwilling to operate in this case, but the girl was in great pain, and asked to have it removed.

Mr. Adams said he removed one from the popliteal space of a boy, as it interfered with motion. He removed it partly subcutaneously. The patient was doing well.

Mr. Sutton Townsend exhibited a specimen of Ossified Aneurism of the Heart. The organ was large, the left ventricle being larger than the right. In its apex was the tumour shown. There were no signs of it during life.

Mr. Sebastian Wilkinson showed some specimens of Malignant Disease affecting the Eyeball and Brain, from a child aged 3. The eyeball was removed, but the disease extended by the nerve to the brain, affecting the meninges and bones of the skull. There was not very much pain.

Mr. W. Adams exhibited the Limbs of a Club-footed Child, on whom he had divided the tendons of the tibialis posticus. The tendons were perfectly repaired. The death took place six or eight months after the operation.

This concluded the work of the session, and after a few words from the Chairman, urging all to send in their contributions to the *Transactions* as speedily as possible, the Society adjourned till October.

CLINICAL SOCIETY OF LONDON.

Friday, May 24.

Sir William Gull, Bart., M.D., F.R.S., in the Chair.

Dr. Broadbent related a case in which tumours in the occipital lobe and in the posterior ascending parietal convolution of the right hemisphere had given rise to convulsion and paralysis of the left half of the body. The patient, a boot-maker, aged 65, was admitted into St. Mary's Hospital on October 15, 1871. He had been in good health up to October 7, when he had convulsive movements of the left arm; afterwards he had pain in the head, and on the day before his admission the entire left half of the body was violently convulsed, and he was sick, but never lost consciousness. The convulsions ceased in a few days, leaving the limbs incompletely paralysed, and sensation was diminished. Afterwards he had painful nervous shocks in the left arm and leg, but they gradually recovered power, till on November 10 he had pain in the head, and torpor, gradually deepening into coma, came on. He regained consciousness, however, after the application of a blister to the forehead, but remained very weak, and the paralysis of the left limbs was almost complete. He died on November 30. His mind was quite clear, except for a short time. The back of the eye could not be examined, on account of opacities in the lens. Two gliomatous tumours were found; one about the size of a cob-nut in the upper part of the second ascending parietal convolution of the right hemisphere, projecting from its surface; the other, about the size of a small orange, was embedded in the occipital lobe, not appearing on the surface at any point. Dr. Broadbent thought the tumour in the parietal convolution was probably the cause of the unilateral convulsion and paralysis. Interesting points in the case were the short time during which symptoms had existed, only seven weeks; the instant relief of stertor when the patient was turned on his side, as recommended by Mr. Bowles of Folkestone; and the recovery from coma after the application of a blister to the forehead; the tumours of course remaining, and probably increasing.

Dr. Hughlings-Jackson thought the case one of very great importance. It was especially interesting with regard to the localisation of changes which produce epileptiform seizures of different varieties. He agreed with Dr. Broadbent that in all probability the hemiplegia resulted indirectly from the anterior of the two lesions, and mentioned a case in support of this opinion. He referred to a case he had recently examined, in which a tubercle the size of a hazel-nut, lying in the third right frontal convolution, was associated with epileptiform seizures beginning in the left thumb. Another interesting point in Dr. Broadbent's case was the absence of mental symptoms. It was well known that a large quantity of one cerebral hemisphere may be destroyed when there are no obvious mental symptoms, but the exact locality damaged has to be taken into account. Dr. Charlton Bastian had brought forward evidence to show that the posterior lobes are the parts concerned in the highest intellectual operations, and Rosenthal has remarked that the psychical disturbance was incomparably more frequent in cases of tumour of the posterior lobes. He (Dr. Hughlings-Jackson) had been led to the conclusion that the right posterior lobe is more important in mental operations than the left, just as the left anterior is than the right. But he admitted that Dr. Broadbent's case tells very strongly against this hypothesis.

The President had recorded a case of encysted tumour in that situation. The tumour was large and of long standing; there were no mental symptoms. The arm and leg had been in a condition of spasm, but when seen that had ceased. Repeated attacks of convulsions ending in coma carried the patient off. There was a large encysted abscess in the right posterior lobe of the cerebrum.

Dr. Andrew read a paper "On Wide Daily Range of Temperature in connexion with Vegetations on the Mitral Valves (Rheumatic Disease) and Separation of the Spleen." Wm. Henry C., aged 16, was admitted into Victoria-park Hospital, under the care of Dr. Andrew, on October 27, and died on December 6, 1871. He had had a severe attack of rheumatic fever two years previously, and had never been well since; he had a slighter attack three weeks ago. On admission, he had still pains in the hips; was very pale and thin; pulse 120; tongue coated. His appetite was bad, and he was thirsty. The bowels were confined. He had a slight hacking cough. The dyspnœa was generally worse at night. The urine was of specific gravity 1020, containing a trace of albumen, which was never again found. The lungs were normal. The heart was greatly hypertrophical. A blowing systolic murmur, loudest at the apex and towards the axilla, was also heard posteriorly. The liver was slightly, the spleen greatly, enlarged. For the first ten days after admission the evening temperature ranged from 103° to 105°, the morning temperature from 98° to 101°. He had a slight attack of tonsillitis, and for two days the temperature remained at 103° to 134°; after this the daily variation returned and gradually diminished, the minimum rising and the maximum falling; on the whole, however, the mean temperature was somewhat increased. On December 1 the temperature began to fall, rising again for a few hours on the 4th. On the 6th, an hour or two before death, it was only 94°. At the post-mortem examination nothing was found except the disease of the heart and of the spleen, with one or two small fibrinous wedges on the kidneys also. The spleen grew larger for some time after admission, the gradual diminution in the daily variation of temperature coinciding with the subsequent gradual decrease in its size. The microscopical examination of the blood showed no increase of white corpuseles, but a pale shrivelled state of the red discs. The prominent features of the case were dyspnœa, without any physical evidence of pulmonary or pleural change, the extreme anæmia and muscular weakness, the constant drowsiness, and the absence of rigors and of any form of delirium. He seemed to die at last from cold.

Dr. Wilks had long been looking for a case of blood-poisoning from an arterial source. Before the thermometer was used he had seen such cases, and the temperature seemed to vary day by day. Dr. Ray, of Dulwich, suffered from such a malady. His only symptom was rigors. He had seen another case which occurred in a lady. He had seen several altogether, but had not taken temperatures exactly. The symptoms were mainly pain in the joints and varying temperature, and really depended on blood-poisoning. Kirkes had alluded to them in his paper, but the fact had been overlooked.

Dr. Cholmeley said he had now a case—that of a girl supposed to be the subject of rheumatic fever—but the only marked thing was variations in the daily temperature. Certainly there was no typhoid or heart affection.

The President said this was one of the most important pages in modern pathology. The condition gave rise to all kinds of doubts.

Dr. Hughlings-Jackson had seen a case of right hemiplegia with loss of speech, in which, as there had been a history of periodical shiverings, it was contended by one Physician that the cause of the palsy was malarious poisoning, and this notwithstanding that there was valvular disease of the heart. Besides blocking of a branch of the left middle cerebral artery, infarcts were found in the spleen post-mortem.

Dr. Powell asked if there was anything in the appearances to show that the date of the one corresponded with that of the other.

Dr. Baümler asked if there was pain in the spleen. In a case of embolism of that organ collapse and pain followed, but no variation of temperature. He had seen a case with these variations. The diagnosis was doubtful. Acute endocarditis was found after death. In pyæmia you might reduce the temperature by quinine, but this did the patient no good.

Dr. Weber thought such conditions were more frequent than was generally acknowledged. Some cases of so-called

rheumatic fever were of this kind. He remembered a case of tonsillitis where the organs suppurated. It was almost healed when symptoms of rheumatic fever occurred, with great variation of temperature. This terminated by pneumonia and pleurisy. There was no apparent disease of the heart. In another case it was apparently a pneumonia which gave rise to the poisoning. Symptoms of fever came on, and the spleen was affected. This was really a case of chronic embolism. In another case we might have tuberculosis; there is only a step between the two.

Mr. Callender referred to the case of a boy subject to repeated attacks of erysipelas. His temperature varied from normal to 106° F. in twenty-four hours. When the temperature went up they were sure to find next day a patch of erysipelas. They removed some necrosed bone from his tibia a few days after his temperature went up. He predicted an attack of erysipelas; next day it was out.

Dr. Andrews, in reply, said the range of temperature corresponded with the condition of the spleen. It was greatest when it was largest, and diminished with it. Some infarcts remained as cicatrices. Some years ago he had seen a case like this in the person of a lady. Often there was an extensive daily range when nothing could be made out.

Mr. Thomas Smith read a paper on a case of Strictured Œsophagus, for which Gastrotomy was performed. The patient, A.B., aged 38, was under Dr. Black's care at St. Bartholomew's Hospital. He had suffered from difficulty in swallowing for eight months. For a fortnight before admission he could take no solids, and for a week (as he said) no food of any kind. Treatment by bougies proved of no avail, as nothing would pass the stricture. There was no external evidence of disease of any kind; no swelling, tenderness, or pain; no expectoration of blood or matter. On March 21, 1872, gastrotomy was performed, and an indiarubber tube was introduced. Through this tube he was fed. The patient went on well for four days; and then was troubled by cough, which seemed to set up peritonitis, of which he died at the end of a week. On examination after death, the cause of obstruction was found to be a ring of epithelial cancer surrounding the œsophagus opposite the bifurcation of the trachea, producing complete obstruction, and involving the pneumogastric nerves. The stomach was firmly adherent to the skin and to the parietal peritoneum. Death was caused by peritonitis. Mr. Smith remarked that in this case the operation had been done under circumstances as favourable as were ever likely again to occur. The patient was not excessively exhausted. There was nothing in the local disease to have caused or even accelerated his death at the time when that occurred. The operation was easily performed. There was no failure in the process of union afterwards, and no hindrance to the administration of food; yet the case terminated as have all cases of gastrotomy for obstruction of the œsophagus. The author stated that there were now twelve recorded cases, all of which had ended fatally; and he expressed an opinion that, with our present experience of the dangers of the operation, it ought not to be undertaken when death is imminent from any other cause than starvation.

Mr. MacCormac gave the particulars of two cases in which Gastrotomy had been recently performed in St. Thomas's Hospital for Œsophageal Obstruction. In the first case, the patient was operated on by the author on March 19. He survived forty-five hours. In the other, Mr. Le Gros Clark operated on May 7, the patient living for six days afterwards. H. S., aged 40, was admitted to St. Thomas's Hospital under the care of Dr. Clapton. Up till the commencement of the present illness, about twelve months before, he had enjoyed excellent health. No history of syphilis or of cancer was obtained. One day he suddenly experienced difficulty in swallowing. This difficulty, with periodical remissions, steadily increased until he sought Hospital treatment. On admission, he was weak, emaciated, and scarcely able to swallow even small quantities of fluid. He did not complain of pain except when trying to swallow food, but the effort to do so always induced most distressing retching and cough. There had never been either pus or blood in the discharges. After consultation, it was deemed expedient to try to feed the man through an artificial opening made in the stomach, through the abdominal wall. Accordingly, at ten o'clock on March 19, Mr. MacCormac made an opening into the stomach, securing the cut edges of the viscus to the wound in the abdominal parietes by means of interrupted suture. The patient bore the operation well. There was no shock, and the vomiting and cough completely disappeared, giving him very marked relief. Food was introduced into the stomach by an indiarubber tube with a funnel, which allowed the fluid to gravitate into the organ. Surgical interference came too late, however, to make any material change in the patient's condition. It did not, perhaps, hasten his end; but he became weaker, and died on May 21, forty-five hours after the operation. An examination after death showed that a cancerous stricture existed low down in the œsophagus, and that by the spread of the disease the lung, in which was found a gangrenous abscess cavity, had become seriously implicated. The edges of the stomach were glued by lymph to the parietes, and in the abdominal cavity there was no trace of peritonitis. In Mr. Clark's patient the antecedent history was very similar to that of the last. Difficulty of swallowing suddenly appeared during eating, and this steadily increased until he came to Hospital, when he finally became unable to swallow almost anything. Some attempts were unsuccessfully made in each case to pass a small elastic bougie. After consultation, the operation of gastrotomy was performed by Mr. Clark on May 7. Food was first introduced into the stomach thirty hours after the operation. The patient experienced great relief for four days by reason of the cough and efforts to vomit completely ceasing; but then the cough returned, the adhesions partly gave way, and he died six days after the operation. Very extensive epithelial disease was found in the œsophagus, and an ulcerated opening had been formed between it and the lower part of the trachea. There was some peritonitis, but it was limited to the neighbourhood of the wound. Mr. MacCormac considered that the operation itself was not necessarily dangerous, and that the relief from the great distress, inducing coughing and retching, caused by futile efforts to swallow, which was observed in a marked degree to follow the operation in both these cases, was encouraging. Even although the operation only prolonged life a little, it seemed possible to give great comfort by it, just as in a similar way the operation of colotomy gave great relief in cancerous disease of the rectum. He did not consider that Surgeons were as yet quite in a position to decide whether or not gastrotomy was a proper operation to perform for impassable stricture of the œsophagus. He thought further experience, especially of operations performed in an earlier period of the disease, desirable, and would not on another occasion hesitate to perform gastrotomy in a suitable case.

Dr. Wiles said there was not on record a single case of recovery from this operation, and he had never known a single case of non-malignant stricture which required such treatment. Even a single exception to the fatal termination would be encouraging, but there was none. The patients in such maladies did not die of starvation. The disease spread to the lung, the vagus, or something of the kind carried them off.

The President said it was really a question of easy death: Which was the easiest?

Mr. T. Smith said some had lived after such an operation for other maladies. The patients after it were terribly shaken by cough. He threw a doubt on the successful cases of gastrotomy for foreign bodies. There were now twelve fatal cases from this operation on record.

OBSTETRICAL SOCIETY OF LONDON.

Wednesday, June 5.

J. Braxton Hicks, M.D., F.R.S., President, in the Chair.

The following gentlemen were elected Fellows of the Society:—C. J. Bracey, M.B., Birmingham; G. B. Denton, Esq., Liverpool; H. M. Fernie, Esq., Macclesfield; C. Leonard, Esq., Bristol; M. Tuchmann, M.D.; and C. B. Waller, Esq.

A report by Drs. Black and Potter on the growth attached to the mouth of a fœtus, and exhibited at the last meeting, was read. It was found to spring from the body of the sphenoid bone, and was composed of numerous pieces of bone and cartilage united together into a compact mass, with here and there little deposits of fat. The reporters believed that it probably represented a secondary fœtus.

Dr. Squarey read an account of the cases of three sisters in whom the Uterus and Ovaries were absent. The congenital defect seemed to have been derived from the mother's family. The first patient was 26 years of age, and had never menstruated. She suffered from pain across the back occasionally, but not regularly. The vagina was represented by a cul-de-sac one inch and a half or two inches long. No sign of uterus by vaginal or rectal examination. The pubes was devoid of hair. The breasts were well developed. The second patient was 18 years old. Menstruation had never appeared. A vaginal examination disclosed exactly the same condition as in her sister, except that the vaginal cul-de-sac was shorter and

smaller. The third sister, aged 16, was also the subject of a similar deformity. There was nothing in the external appearance of either of these to lead anyone to expect that such a malformation existed.

Dr. PHILLIPS said that in 1870 there were two sisters under his care at Guy's Hospital, in whom no trace of a uterus could be found. One was 20 years of age, rather diminutive in stature. The external genitals were well formed, and the mammary glands were well developed. The vagina was represented by a short canal, about an inch long, terminating as a cul-de-sac. So far as an examination during life could decide, there was no uterus, and the ovaries could not be felt. Her sister, aged 21, was found to be the subject of a malformation similar in every respect. Neither of them had ever menstruated. It was worthy of notice that in Dr. Squarey's cases and his own the breasts were developed. It was, of course, possible that the ovaries existed; but in one case he saw, the breasts were large, though it was in the highest degree probable that all the internal genital organs were absent. There was no opening between the urethra and the rectum, and the intervening septum was about the natural thickness of the urethro-vaginal septum. The finger in the rectum and the hand above the pubes met easily.

Dr. HEYWOOD SMITH referred to the case of a woman, aged 30, who had not menstruated, and in whom there was found merely a small knob, about the size of half a filbert, to represent the uterus. In another case there was no uterus, as far as he could ascertain; a very short vagina existed, and a wide urethra, through which menstruation occurred. In a third case there was a normal uterus, but total absence of menstruation, and she had full whiskers and beard.

Dr. ROGERS had had under his care three cases of absence of the uterus in otherwise well-formed and healthy women. The vulva, the labia, and the mammæ were well developed, but the most careful examination, even with the hand in the rectum, the patient being under the influence of chloroform, failed to find any trace of a uterus.

Dr. TILT was not prepared to admit that the ovaries were absent in women who owned to sexual feelings and presented a normal development of the mammary glands; probably in such cases the ovaries were placed beyond the reach of the observer's finger.

Dr. BARNES said that Kussmaul declared that the uterus and ovaries were rarely altogether absent. There was a specimen, however, in University College Hospital, from a girl, aged 21, who had never menstruated. No ovaries could be seen, and the uterus retained the characters of that of a young child. In one case he had dissected up an artificial vagina a year ago, and by means of an elastic dilator this was well preserved.

Dr. WILTSHIRE agreed with Dr. Phillips that cases of various degrees of malformation of the female genitals were not very rare. He suggested that some information might be obtained by external measurements of the pelvis, and by the condition of the breasts. He mentioned cases where patients had borne children after treatment of malformations supposed to be irremediable.

Dr. MATTHEWS DUNCAN read a paper on "Long Delay of Labour after discharge of Liquor Amnii." A patient was expecting her confinement in June, 1872. On March 10 there occurred during the night a copious flow of liquor amnii, and slight irregular pains were felt. The liquor continued to discharge freely but not constantly. The uterus gradually diminished in bulk, and in a fortnight's time it felt not much bigger than a large adult fœtal head. On April 25 regular pains came on, and the child was born alive, but survived a very short time. There appeared no doubt that pregnancy continued for forty-five days after the discharge of some of the liquor amnii, and the fœtus continued to live for several weeks in a very contracted uterus. The author considered that the hypothesis resorted to by Burns in explanation of such cases—that the torn membranes may be healed—was not only without rational grounds, but contrary to all we know. Among the conditions which may be mistaken for premature evacuation of liquor amnii he mentioned discharges of urine, watery discharges, such as are sometimes observed in virgins, and whose source may be Cowper's gland or the cervix uteri, discharges from the uterus of a fluid occupying the anatomical position of hydroperionic fluid, discharge of liquor chorii, discharge of the liquor amnii of one ovum in a case of plural pregnancy, discharge of the fluid in a cyst described as occurring between the chorion and the amnion. In the above case, however, that the discharge was liquor amnii was proved by the subsidence of the uterine tumour, by the diminution of its bulk, by the increase of its hardness, by the complete absence of discharge of liquor amnii at the time of labour, by the compressed state of the child, and by the almost complete rubbing off of the vernix caseosa. Here the discharge of liquor amnii in occasional gushes took place till labour came on, and long after it was evident that the uterus had been for the time as completely evacuated of this fluid as it could be. But this circumstance was easily explained by the accumulation of newly secreted liquor amnii. Winkler's researches proved that the amniotic membrane has the power of secretion and absorption in a high degree. The author believed that firm compression of the fœtus may take place without active uterine contraction, and it is firm compression by active uterine contraction that is incompatible with the continuance of pregnancy, or of fœtal life; not such mere firm compression as is seen in a case of missed miscarriage or missed labour. The explanation of the partial and repeated discharges of liquor amnii by a high position of the rent in the membranes and some sort of valvular action seemed to the author chimerical. The great question suggested was, Why do conditions which generally induce labour fail to do so in these rare cases? In our present state of utter ignorance as to the cause of the coming on of natural labour, it is not to be wondered at that we cannot tell the cause of its failing to come on. It is highly probable that he who discovers the cause of the coming on of natural labour will also be able to explain why in these abnormal cases labour does not come on.

Dr. SNOW BECK mentioned the case of a lady who, when six months pregnant, had a copious discharge of clear watery fluid. Labour came on at the natural term, and there was no escape of liquor amnii. Also another case in which at the fourth or fifth month there was a sudden discharge of two or three quarts of perfectly clear fluid, which continued more or less all night. This recurred every evening (except during one week) for ten weeks, when she was prematurely confined, and died from hæmorrhage two hours after the removal of the placenta. Dr. Beck believed this to be an exudation from the vagina, and perhaps the great venous congestion was relieved by rest during the night, and again increased by being about all day. He did not think that either set of glands in the uterus was involved in its production.

Dr. BARNES believed that hydrorrhœa, especially in early pregnancy, resulted from a hypertrophied condition of the glands of the uterine mucous membrane, and this might explain Dr. Beck's second case. He did not believe in the rupture of the membranes and the rent healing. He might offer a speculation in relation to the cause of labour. Why labour did not so readily come on under provocation before the natural term of gestation was because the nervous centres had not yet attained that remarkable degree of irritability which characterised them at full time. There was a less ready response to excito-motor stimulus.

Dr. RASCH said he found the characteristic smell of the liquor amnii a very valuable help to diagnosis in cases of alleged discharge of the waters.

Dr. MADGE read an account of an interesting case of Uterine Fibroids complicating Pregnancy. The patient was 40 years old, pregnant for the first time. Eight distinct swellings could be made out. All the tumours except one increased in size during pregnancy. Labour tedious; delivery by forceps; hæmorrhage from imperfect contraction. The hand in the uterus detected its walls to be full of nodosities. In three months one tumour was still the size of a cocoanut; all the other tumours were much smaller. In six months three of the smaller ones had disappeared. In sixteen months the uterus and the large fibroid were still but slightly lessened in bulk, and two of the smaller tumours were distinctly made out, but only traces of the others remained.

Dr. MUNDE exhibited for Professor Simon, of Heidelberg, a Scoop for removing the superficial portions of uterine cancer when more complete measures could not be entertained.

The PRESIDENT, Dr. BARNES, and Dr. RASCH assented generally to the principle of dealing with cancer by removing the superficial proliferating portions which were the seat of hæmorrhage and foul discharges. Dr. Rasch had used Simon's instrument. Dr. Barnes said it did not differ in its use from Marion Sims's curette which he used.

DR. LÖWENFELD, says a German correspondent, has purchased for the University of Strasburg the whole scientific apparatus and all the instruments which belonged to Alexander von Humboldt at the time of his death. The collection is said to be most valuable.

LEGAL INTELLIGENCE.

CONVICTION UNDER THE MEDICAL ACT.

At Marlborough-street, Dr. John Hamilton, of 494, Oxford-street, was summoned before Mr. Knox for unlawfully pretending to be, and taking and using the name and title of, a Doctor of Medicine, Surgeon, and General Practitioner, implying that he was registered under the Medical Act. Mr. Froggatt appeared for the prosecution, and Mr. Ricketts for the defence. Mr. Froggatt said the prosecution was instituted under the 40th section of the Medical Act, for improperly holding himself out as a Doctor of Medicine. The defendant had a shop in Oxford-street, and on the door and on a plate under the window, and on the window itself, there was "Dr. Hamilton, Surgeon, &c., Medical advice"; and he otherwise held out that he was a Medical Practitioner, and a printed book would be produced, issued by the defendant, in which he described himself as M.D., Surgeon and Accoucheur, and professed to give Medical advice. He should show that the defendant was not entitled to do so, that his name was not on the "Medical Register" issued by the Medical Council, and that he had rendered himself liable to a penalty of £20. Mr. Deakin, House-Surgeon at the Male Lock Hospital, Dean-street, proved that the defendant had on his lamp "J. Hamilton, M.D., Accoucheur"; on a brass plate under the window, "J. Hamilton, M.D., Surgeon;" and on the window, "Medical advice." The place had the appearance of a Surgical appliance shop. He bought a book at the shop with "J. Hamilton, M.D., Surgeon," on it. He did not know that the defendant was a graduate of the Metropolitan College of New York. (Diploma produced.) Dr. Francis Hawkins, M.D., Registrar of the Medical Council, produced the "Medical Register" referred to in the Medical Act, and stated that the name of John Hamilton, 494, Oxford-street, was not in it. In reply to Mr. Ricketts, Dr. Hawkins said the names of Kirk and Richardson were on the Register, they being Members of the Metropolitan College of New York; but if they were not Members before 1858, when the Act passed, they could not be registered, as the diplomas of foreign and colonial colleges were not recognised by the Act. The defendant had never applied to be registered. He knew that Mr. Mansfield and Mr. Raffles, at Liverpool, refused to convict in a similar case, and that the refusal on appeal was confirmed by the judges. Mr. Henry Chandler, Surgeon, Berners-street, had made a complaint to the Medical Council several times, and asked them to prosecute the defendant. He received a letter from the Council, and this summons was taken out. In reply to Mr. Ricketts, witness said he used the title of Doctor as a right, being a Member of the Royal College of Surgeons, and registered. Dr. Hawkins, when appealed to, said the witness had no right to call himself Dr. Chandler, as he was not a Member of the Royal College of Physicians. Mr. Chandler had asked for protection against the defendant, who called himself a Doctor, and who had set up in opposition to him. Mr. Ricketts said witness also improperly assumed the title of Doctor. His client had a diploma as Doctor, and had undergone a severe examination before he obtained it. Mr Froggatt said it was well known that any number of documents called diplomas were offered for a payment of £10 to £17. Mr. Ricketts said the kind of diploma which the defendant possessed had been sanctioned by an Act of Congress. Mr. Knox had nothing to do with that. Mr. Ricketts then argued that the summons must fail, inasmuch as the defendant had done nothing more than he was entitled to do under the diploma he had obtained after undergoing a thorough examination as to his Medical qualifications. He did not find anything in the Medical Act which prohibited him from practising, if holding a foreign diploma, and if duly qualified, although he might not be registered. The case had already been twice decided at Liverpool, to the effect that a person so qualified might practise, and that decision of the magistrates had been confirmed on a special case by the judges. He submitted that the mere assumption of the title "Doctor" did not imply or intend to imply that the defendant was registered under the Act. Unless, then, it was found that the defendant falsely assumed the title of "Doctor," he submitted there was no offence. Mr. Froggatt contended for the other view, and quoted authorities in support of his argument. Mr. Knox said that this was a summons taken out under the Act of 1858 for the regulation of the qualifications of Practitioners in Medicine and Surgery. The object of the Act, as stated in the preamble, was that persons requiring Medical aid should be able to distinguish qualified from unqualified Practitioners. The 40th section supplied us with the test appointed by the Legislature. It was this—"Any person wilfully and falsely pretending to be, or taking or using the name or title of Physician, Surgeon, General Practitioner, etc., implying that he is registered under the Act or is recognised by law as a Physician, Surgeon, etc., shall upon summary conviction for any such offence pay a sum not exceeding £20." Again, in the 37th section it is enacted that no certificate required from any Practitioner be valid except the person signing the same be registered under the Act. It is not pretended that the defendant is either registered or that he has applied to be registered under the Act. But a diploma from New York College (which is admitted by consent) is set up as entitling him to use the qualification of "Doctor, Surgeon, etc.," without registration. Allowing for argument's sake the validity of this document, he took it that the defendant was out of court by the very date of the diploma he had set up. By the 11th clause of Schedule (A) the Medical Council were permitted to grant registration to Doctors of Medicine of any foreign and colonial university who had actually practised in the United Kingdom before 1858, the date of the Act. No power is given to grant registration to gentlemen of this class save as thus provided. The Council could not, if they would, have granted registration to the defendant; and, as it appeared to him, under the 40th section, without registration he cannot legally use any of the names or titles mentioned in the section, the defendant must be fined forty shillings and costs. Mr. Ricketts gave notice in writing that he applied for a case for the Queen's Bench. It was arranged that a case should be agreed upon between the solicitors, and then Mr. Knox said he would grant the application.

NEW INVENTIONS.

DR. CLERTAN'S PEARLS.

(*L. Frère*, 19, *Rue Jacob, Paris; and Jozeau*, 49, *Haymarket, London.*)

Under the title "*Perles*" Dr. Clertan, of Dijon, some years ago introduced little gelatine globules, containing various medicaments, and especially those of a nauseous order, of which most patients desire to avoid the taste. The peculiar advantages claimed for Dr. Clertan's "pearls" over similar preparations are that they are smaller, rounder, and more easily digested; and we may add, as a recommendation of the capsule form of preparations in general, that they convey a drug to the organ fitted to absorb it, without wasting any upon the mucous membrane of the mouth and fauces. The contents of the "pearls" before us are ether, chloroform, turpentine, and the ethereal tinctures of assafœtida, castor, valerian, and digitalis. Their finished workmanship is a strong recommendation.

TWO NEW FORMS OF ENEMA APPARATUS.

Most of the enema apparatus hitherto invented present some disadvantages which militate against their usefulness. The ordinary brass enema apparatus is cumbersome, and extremely inconvenient to use alone, as it needs both hands to work it, so that it is difficult to keep the canula *in situ*. Again, if not often used, the packing on the piston is sure to get very dry, and in hot climates especially the instrument is in this way often rendered useless, it being no easy matter to pack a piston properly. The "irrigateur" of Dr. Eguisier is easy to manipulate, but it is very bulky, very liable to get out of order, and could only be repaired by an instrument maker. Perhaps the best form of apparatus yet made is either the Higgenson or Kennedy. They are both of them portable, and can be used with one hand, but they have also both of them one radical defect—namely, the vulcanised indiarubber ball. However good this may be when first manufactured, after a time it undergoes some molecular change and becomes worthless. Again, if the ball be made thin it fills but slowly; and if made thick it is very tiring to the hand; but, worse than all, oil or turpentine (so often used in enemata) soon destroy the indiarubber. Mr. Shepard has endeavoured to remedy all these various defects in two forms of enema apparatus made by Messrs. Arnold of 35 and 36, West Smithfield, E.C. It is proposed to call that depicted in Fig. 1 the "Simplex," and the other, Fig 2, the "Facilis."

The "Simplex" consists of two cylinders, sliding easily the one within the other. The upper and smaller of the two is

closed at the top as shown in the engraving, and is kept raised by means of a spiral spring which rests against the bottom of the lower cylinder. This latter is closed at its lower end by the solid base on which the instrument stands, and its upper end is made of rather larger diameter than the rest, so as to form a circular chamber, which has holes pierced at its under surface. An inlet-valve is fitted into the base of the lower cylinder, and an outlet-valve to an opening leading to a space between the inner and outer surfaces of the lower cylinder, which space is continuous with the discharge-pipe. To use the apparatus, it is placed in a basin or other vessel containing the liquid, the upper cylinder is pressed down by the hand, and then allowed to rise again by the action of the spring; it thus acts as a piston, and the fluid is drawn through the inlet-valve into the lower cylinder. On again depressing, the greater part is forced through the outlet-valve, and the little that escapes between the cylinders is forced into the circular chamber, from whence it runs through the holes on its under surface back into the vessel.

The "Facilis" is made essentially on the same principle, but it is constructed to feed itself from any vessel, and is intended to be used in cases where it would be inconvenient to stand the apparatus in the fluid—for instance, when it is required to be used in bed, or with delirious or unruly patients. It consists

Fig. 1.

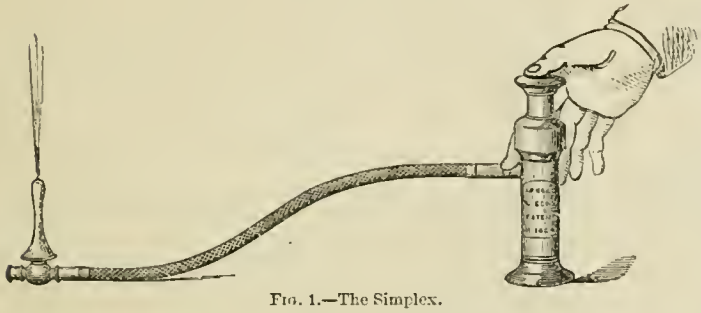

Fig. 1.—The Simplex.

of a cylinder, having the upper part of larger diameter than the lower, and fitted with a water-tight cover, which is pierced with an opening fitted with a stuffing box.

Fig. 2.

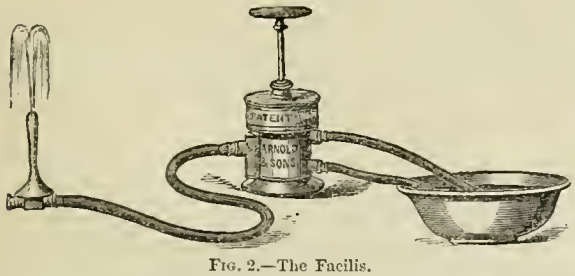

Fig. 2.—The Facilis.

Inside the cylinder is a *loosely-fitting* metallic piston, without packing, kept pressed against the cover by means of a spiral spring. In the centre of the upper surface of the piston is a depression corresponding with the opening in the cover. The piston-rod, which is loose, drops into this. An inlet valve is fitted to an opening in the lower part of the cylinder, to which the feed-tube (the lower of the two shown in the engraving) is attached. The upper tube is fitted to an opening on the under surface of the enlarged part of the cylinder, and acts as a waste-pipe. An outlet-valve is fitted to the opposite side of the cylinder, and is connected with the discharge-pipe. To use this apparatus the feed-pipe and waste-pipe are both allowed to dip into the vessel containing the fluid. Then, on alternately depressing the piston and allowing the spring to raise it, the liquid is drawn into the cylinder through the inlet-valve, and forced through the outlet-valve. What little makes its way beside the loosely-fitting piston gets into the large upper part, and runs through the waste-pipe back into the vessel.

The advantages which these apparatus are supposed to possess are—

1st. They are very easy to use, needing only one hand to work them.

2nd. They are eminently portable, the "Simplex" being only four inches high and an inch and three-quarters in diameter at its widest part. The "Facilis" is three inches high and two inches in diameter.

3rd. There is no packing on the piston, and they are so simple in construction that it is next to impossible they should get out of order.

4th. They can be taken to pieces to clean, and put together again in a few seconds, and without trouble.

5th. They are made entirely of metal, and the springs are of plated steel, so they are not likely either to rust or become weakened.

OBITUARY.

DR. JOHN BAYLDON.

It is with regret that we record the death of Dr. John Bayldon, Acting Superintendent of the Ararat Lunatic Asylum, Dr. Bayldon was a man of very rare attainments. He was Bachelor of Medicine and Bachelor of Science of the University of London, and Licentiate of the Colleges of Physicians and Surgeons of Edinburgh. In 1860, when he passed his first M.B. examination, he not only graduated in honours, but obtained the exhibition in anatomy and physiology and the gold medal in the same subjects. Indeed, as a physiologist, he was rapidly obtaining distinction, quite at the outset of his career in the Profession, when the malady to which he eventually owed his death commenced to trouble him, and, acting under advice, he went to Melbourne in the early part of 1866. By the large circle of private friends who now regret his loss his death will be deeply felt, for no member of the Medical Profession was ever more thoroughly liked or more deservedly respected than was Dr. Bayldon. He leaves behind him a widow, but no children.

JOHN THOMAS, M.R.C.S., etc.,

Died on the 6th instant, after a few weeks' illness, at Hebden-bridge. He was born in 1795. He served his articles under the present Dr. Alexander's father, at Halifax, and shortly after he attained his majority he commenced business in Commercial-street, but many years since removed to the residence he last occupied. On July 1, 1837, he was appointed Registrar of Births and Deaths, which post he held until a few weeks ago. In 1855 he was appointed a Medical Officer to Todmorden Union. For many years he was Certifying Surgeon for the Hebden-bridge district. The two latter offices he held until his death. He was greatly respected throughout the neighbourhood, and is deeply regretted by a large circle of relatives and friends.

JAMES QUILTER RUMBALL, M.R.C.S., L.S.A.,

Of The Limes, Harpenden, Herts, died on the 4th instant. He was born in 1795. Was the son of Mr. John Rumball, Surgeon, of Abingdon. Admitted on September 5, 1817, as a M.R.C.S. Was a pupil at Bethlehem Hospital, 1819, under Sir George Tuthill and Dr. Edward T. Munro, and was a pupil of Dr. Spurzheim, from whom he imbibed a strong affection for phrenology. He was for a long period Surgeon to Harpenden Hall Asylum for the Insane, near St. Albans, Herts. He was the author of the "Mother's Monitor," "Address to the British Association on the Claims of Phrenology," "Letter to the Lord Chancellor on Insanity," "Essay on Reason and Instinct," "The Anti-Mesmerist," and other works. Testimonials were presented to Mr. Rumball by several societies to whom he had given lectures, as marks of their esteem.

A Healthy County.—Statistics published in a local paper (Alpine county, California) show that in nine years only twenty deaths have occurred in the settlement. These twenty are thus recorded:—Four were murdered, one fell from a tree, three were killed by an avalanche, one was suffocated in a mine, one perished in a cave, three were lost in the snow, three died of consumption, and of the other four—two have the word "infants" written after their names in the explanatory column, and two the word "whisky." The actual number of the population is not shown, but an approximate estimate may be formed from election times, when the county casts 1600 votes.

MEDICAL NEWS.

UNIVERSITY OF DUBLIN.—TRINITY COLLEGE.—At the Trinity Term Examination for the degree of Bachelor of Medicine, held on Monday and Tuesday, June 10 and 11, the following were successful:—

Moriarty, Matthew Denis.		Hamilton, James Charles.	
M'Munn, Charles Alexander.		McLaughlin, Frederick.	
Smyly, William Josiah.		Archer, Robert S.	
Mackesy, William Lewis.		Gubbins, William L.	
Kingston, William F.		Fullerton, John C.	
Allen, James Henry.		Pope, Frederick.	equal.
Kerr, Elias William.		Goode, George.	
O'Meara, Thomas P.		Fleetwood, Thomas F.	equal.
Wade, Arthur Law.	equal.	Marsden, Charles.	
Grandison, Alfred.		Chartres, John.	
Tuckey, Thomas P.			
Ball, Charles B.			

At the examination for the degree of Master in Surgery, held on Monday and Tuesday, June 17 and 18, the following candidates passed:—

McLaughlin, Frederick.	equal.	Archer, Robert S.	equal.
Ball, Charles B.		Hingston, William F.	

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the monthly examinations held on June 11, 12, and 13, the Licence to Practise Medicine was granted to—

Mahon, Charles J.	Smyly, William Josiah.
O'Keiffe, John Leonard.	Warren, Frederick W.
Ryan, John.	

The diploma in Midwifery was granted to—

Fullerton, John Campbell.	Ryan, John.
Mahon, Charles J.	Smyly, W. J.
O'Keiffe, J. L.	Warren, F. W.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, June 13, 1872:—

Godfray, Armiroux, Jersey.
Savage, George Henry, Nent Head, Cumberland.
Welchman, Edward, Winchester.

As Assistants in Compounding and Dispensing Medicines:—

Oxley, Herbert Lister, Palermo, Sicily.
Stansby, Charles John, Victoria Dock-road, E.
Young, John Rymer, Warrington.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

ALLFREY, C. H., M.D., F.R.C.S. (Exam.)—Surgeon to the Asylum of the Governesses' Institution at Chislehurst.

BAILEY, G. H., M.R.C.S. Eng.—Additional Administrator of Anæsthetics to the Dental Hospital of London, Soho-square.

BARRIE, JOHN, M.D.—Medical Officer, etc., to the Central District of Govan, Lanarkshire.

BUCKLEY, SAMUEL, M.R.C.S., L.S.A.—Medical Officer to the Workhouse, and to the District comprising Crumpsall, Blackley, and Harpurhey.

FORREST, ROBERT W., M.D., C.M.—Medical Officer, etc., for the Eastern District of Govan, Lanarkshire.

GARRARD, WM. ARTHUR, L.S.A.—Assistant House-Surgeon to the Infirmary, Derby.

MAYNE, N., L.K. and Q.C.P.I., L.R.C.S.I., L.M.—Medical Officer for the Oughterard Dispensary District, Oughterard Union, county Galway.

PORTER, JOHN, M.R.C.S. Eng., L.S.A.—Medical Officer for the Blackpool District, Fylde Union, Lancashire.

ROBMAN, ROBERT, M.B., C.M.—Medical Officer, etc., to the Western District of Govan, Lanarkshire.

TILEY, W. G., M.R.C.S. Eng., L.S.A.—Resident Medical Officer to the London Fever Hospital, Liverpool-road, N., *vice* W. R. Cheyne, M.R.C.S. Eng., resigned.

WILSON, J.—Dispenser to the Infirmary, Derby.

MILITARY APPOINTMENTS.

MEDICAL DEPARTMENT.—In accordance with the provisions of her Majesty's Order in Council of February 22, 1870, the undermentioned officer has been placed on the retired list of his rank from the 7th inst.:—Staff Surgeon Charles Forbes, M.D. Deputy Inspector-General of Hospitals: John Fraser, M.D., C.B., to be Inspector-General of Hospitals, *vice* Robert Lawson, who retires upon half-pay; Surgeon-Major James Macmillan Scott Fogo, from the Royal Artillery, to be Deputy Inspector-General of Hospitals, *vice* John Fraser, M.D., C.B., promoted. James Tucker, M.D., Surgeon to the Sligo Rifles.

BIRTHS.

COGMAN.—On June 10, at Heathfield, Sussex, the wife of Charles Cogman, of a son.

FEGEN.—On June 13, at 6, Jean d'Aere-terrace, Stoke, Devonport, the wife of W. Banks Fegen, Staff Surgeon R.N., of a daughter.

GOOD.—On June 12, the wife of Joseph Good, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., of Wilton, Wilts, of a daughter.

MACTIER.—On June 13, at Strone House, Blairgowrie, Perthshire, the wife of W. F. Mactier, M.D., late Bengal Service, of a son.

MOFFITT.—On June 14, at Woolston, the wife of A. Moffitt, L.R.C.S.I. Army Medical Staff, of a son.

TEMPLE.—On June 14, at the Royal Arsenal, Woolwich, the wife of Staff Assistant-Surgeon Wm. Temple, V.C., of a son.

MARRIAGES.

DRIVER—INSOLL.—On June 11, at the parish church, Eastbourne, George Vernon Driver, M.R.C.S. Eng., L.S.A., of Gordon-square, London, to Ann, only daughter of Robert Insoll, Esq., of the Old Orchard, Eastbourne.

FETZER—CAPPEL.—On June 18, at St. George's German Lutheran Church, Little Alie-street, Karl Berthold Fetzer, M.D., of Stuttgart, Würtemburg, to Mary Theresa, eldest daughter of the Rev. L. Cappel, D.D., of 4, Primrose-hill-road, N.W.

LYCETT—RADFORD.—On June 12, at the parish church, Tutbury, John Lycett, L.R.C.P., Lond., of Atherstone, to Ann, elder daughter of Edmund Radford, Esq., Tutbury.

NUNNELEY—OMMANNEY.—On June 12, at St. Andrew's Church, Chew Magna, Somerset, J. A. Nunneley, M.B., of Leeds, to Katherine Agnes, fourth surviving daughter of the Rev. E. A. Ommanney, M.A., Vicar of Chew Magna, and Prebendary of Wells.

SMITH—M'LEOD.—On June 11, at Bidstone Church, Professor Smith, M.D., of the University of Sydney, N.S.W., to Mary (Minnie), eldest surviving daughter of Norman M'Leod, Birkenhead-park.

SUTCLIFFE—HADEN.—On June 13, at South Hackney Church, John Sutcliffe, M.R.C.S. Eng., to Elizabeth, youngest daughter of William Haden, Esq., of Hackney.

TICEHURST—VENABLES.—On June 18, at St. Mary's-in-the-Castle, Hastings, Augustus Rowland Ticehurst, M.R.C.S.E., of St. Leonard's-on-Sea, son of Frederick Ticehurst, Esq., J.P., of Hastings, to Amy Sophia, second daughter of George Henry Venables, Esq., of Brondesbury, Middlesex.

DEATHS.

CHAPMAN, ANN, daughter of Richard Chapman, M.D., at Kirbymoorside, on June 17.

DALLAWAY, SARAH ANNE ELIZABETH, daughter of the late Joseph Dallaway, Surgeon R.N., at her residence, Broad-street, Deal, on June 17, in her 58th year.

JERDON, THOMAS CAVERHILL, late Surgeon-Major in the Madras Medical Service, and eldest son of the late Archibald Jerdon, Esq., of Bonjedward, Roxburghshire, at Upper Norwood, on June 12.

MAY, WILLIAM GORMLEY, Assistant-Surgeon Bengal Medical Service, at Kussowlie, East Indies, on May 12.

RICE, SARAH, wife of Surgeon Rice, at 205, Lancaster-road, W., on June 13.

SEATON, JULIA, wife of Edward C. Seaton, M.D., at Rochester House, Surbiton, on June 17.

SLEIGHT, ROBERT LEADEM, M.R.C.S., late of Hull, at Hornsea, Yorkshire, on June 12.

TAYLOR, WILLIAM, M.R.C.S. Eng., L.S.A., of 126, St. John-street-road, Clerkenwell, at St. Mary's Hospital, Paddington, on June 15.

VALLACK, ADONIAH, M.R.C.S. Eng., at Wringford, Rame, near Plymouth, on June 5, aged 59.

WRIGHT, G. A. W., M.D., Army Medical Staff, youngest son of the late James Wright, Esq., of Lawton, Perthshire, at Edinburgh, of consumption, in his 31st year.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BETHLEHEM HOSPITAL.—Assistant Medical Officer. Candidates must be Fellows or Members of one of the Royal Colleges of Surgeons, and also Members or Licentiates of one of the Royal Colleges of Physicians, or Licentiates of the Apothecaries' Society. Applications, with testimonials, to A. M. Jeaffreson, Clerk, Bridewell Hospital, New Bridge-street, Blackfriars, on or before June 27.

CARNARVONSHIRE AND ANGLESEA INFIRMARY.—House-Surgeon. Candidates must be registered Medical Practitioners, and acquainted with the Welsh language. Applications, with testimonials, to the Secretary, Infirmary, Bangor, on or before June 27.

GLOUCESTER INFIRMARY.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin. Applications, with testimonials, to T. H. Pitre, Secretary, on or before July 4.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET, W.C.—Assistant-Physician. Candidates must be Fellows or Members of the Royal College of Physicians of London. Applications, with testimonials, to Samuel Whitford, Secretary, on or before June 26. Also, Medical Registrar. Candidates must possess some legal qualifications. Applications as above.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

LEWISHAM UNION.—Medical Officer for the Sydenham and Forest-hill District. Candidates must be registered under the Medical Act of 1858, and possess the double qualification prescribed by order of the Poor-law Board of December 10, 1859. Applications, with testimonials, to T. Watson Parker, 3, Greenaway-place, Lewisham, on or before June 26.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—Resident Medical Officer. Applications, with testimonials, to Ernest Morgan, Secretary, 20, John-street, Adelphi.

Seamen's Hospital, Greenwich.—House-Physician. Candidates must possess at least one qualification. Applications, with testimonials, to Kemball Cook, House-Governor and Secretary, on or before June 22.

Teignmouth, Dawlish, and Newton Infirmary.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Committee, on or before June 29.

York County Hospital.—Non-resident Dispenser. Applications, with testimonials, to Robert Holtby, Secretary, 5, New-street, York, on or before June 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Edmonton Union.—Dr. Rawlings has resigned the Stoke Newington District; salary £20 per annum.

Fylde Union.—The Blackpool District is vacant; area 7065; population 5693; salary £43 10s. per annum.

Honiton Union.—The First District is vacant; area 10,240; population 4914; salary £95 per annum.

Worksop Union.—M. Francis C. Crosslé has resigned the Whitwell District; area 9054; population 2222; salary £20 per annum.

APPOINTMENTS.

Mere Union.—Wilton Provis, M.R.C.S. Eng., L.R.C.P. Edin., to the Second District.

Sheffield Union.—Matthew Leach, M.R.C.S. Eng., L.S.A., to the South District.

Wandsworth and Clapham Union.—William H. Kempster, L.R.C.P. Edin., M.R.C.S.E., L.S.A., to the East Battersea District.

Westhampnett Union.—Alfred S. Bostock, M.R.C.S. Eng., L.S.A., to the Boxgrove and Rumboldswhyke United Districts.

The Volunteer Medical Officers.—At the meeting of the Volunteer Medical Officers held at the Grosvenor Hotel on Thursday, the 20th inst., Mr. Spencer Smith in the chair, there were present Messrs. Cock, Cordy Burrows, and about twenty-five others. It was resolved that the obnoxious orders relative to the Volunteer Surgeons ought to be rescinded, that the proposed examination should not be retrospective, and that a deputation be appointed to wait on Mr. Cardwell with the above resolutions. We understand that a subscription in aid of this movement has been already commenced in Edinburgh.

Royal College of Surgeons.—The following is an abstract of the unconfirmed proceedings of the last meeting of the Council, on the 13th inst.:—The Secretary submitted a report from the Court of Examiners of candidates passed and rejected at the Primary and Pass Examinations for the diploma of Member during the collegiate years 1868-69, 1869-70, and 1870-71; such report having been prepared in pursuance of the resolution of the Council on April 15 last. The Secretary laid before the Council a certificate of the conviction, at the Surrey sessions on the 6th ult., of William Brett (admitted a Member of the College in 1862), for stealing a book, and of his sentence to two months' imprisonment with hard labour, and stated that the said Brett had been identified by Mr. Stone in the Wandsworth House of Correction as the person so convicted and sentenced: whereupon it was resolved—"That in the opinion of this Council the criminal offence of which William Brett has been convicted is of such a nature as to render him unfit to remain a Member of the College, and that he accordingly be removed from being a Member thereof under section 17 of the by-laws." Mr. Hancock, in pursuance of his notice on the 28th ult., moved—"That in the opinion of this Council the conduct of Mr. Matthew Bass Smith, as shown by his own evidence in the case of Mr. Edmund Edmunds, of Newent, tried for manslaughter at the Central Criminal Court on May 8 and 9 last, was 'prejudicial to the interest and derogatory to the honour of the College, and disgraceful to the Profession of Surgery;' and that the solicitor be instructed to obtain a certified copy of the evidence in the case, with a view—should the same be found to have been correctly reported in the newspapers, and should the solicitor be of opinion that the offence committed is within the scope of the by-laws—to the removal of Matthew Bass Smith from being a member of the College, under section 17 of the by-laws." The motion having been seconded by Mr. South, and the votes of the Council having been taken thereon, the same was carried *nem. con.* Mr. Erichsen, in pursuance of his notice, moved—"That the Court of Examiners be requested to take steps to ascertain the manner in which 'Practical Surgery,' 'Practical Physiology,' and Anatomy have been taught in the different schools in the metropolis and in the provinces, and to report to the Council the result of such inquiry;" and the motion having been seconded by Mr. Hilton, and the votes of the Council taken thereon, a majority was in favour thereof. The Secretary then read a letter from Dr. Edwards-Crisp, of Beaufort-street, Chelsea, offering himself as a candidate for the officer of Professor; Messrs. Holmes, Flower, Wilson, and Humphry were nominated for election in July to their respective offices of Professors and Lecturer for the ensuing year. Drs. Farre, Barnes, and Priestley were nominated for election in July as members of the Midwifery Board; and Drs. Peacock and Wilks as Examiners in Medicine for the ensuing year.

Collegiate Election.—Notices have just been sent to the Fellows of the College that the only candidates for seats in the Council are Messrs. Hancock, Curling, and Holt.

Royal College of Surgeons, Edinburgh.—At the last meeting of the Council, Dr. Thomas Cawley, M.R.C.S. Eng., formerly of Guy's Hospital, Surgeon-Superintendent in H.M. Emigration Service, was elected a Fellow of the College. Dr. Cawley has proceeded to Sydney in the ship *La Hogue* in charge of emigrants.

St. Mary's Hospital Medical School.—The prizes were presented to the successful students on Thursday, June 13, by Thomas Hughes, Esq., M.P., in the presence of an unusually large company of visitors. The Dean's report showed that the School was in a prosperous condition, there having been considerable increase in the number of students who had entered the School during the past year, and the foundation of open scholarships in Natural Science, and the appointment of a Medical tutor, having been attended with highly satisfactory results. After presenting the prizes, Mr. Hughes delivered an eloquent address, in which he urged that it was the clear duty of every true man to be searching and questioning in the field in which he had to work, with a fixed resolve to follow wherever his inquiries might lead him. The object of honest search must be the discovery of truth, and the pursuit was perfectly consistent with a spirit of reverence and toleration. The speaker then drew attention to the great disadvantages under which Medical students labour in having to enter upon a study so vast and comprehensive as that of Medicine, without having, as a rule, any general knowledge of natural science to start from. Although a great advance has been made of late years by the introduction of physical science as an integral portion of primary education in certain schools, he was of opinion that the only immediate and certain mode of securing that each student should be properly grounded in elementary science before entering a Medical school, would be for these institutions to agree upon the establishment of a matriculation examination in the elements of botany, chemistry, and physics. In conclusion, Mr. Hughes dwelt upon the noble and beneficent nature of Medical work, and the obligation which rested upon all who undertook it to do so in no mere commercial spirit, but chiefly with regard to that highest reward of all high effort—a constantly widening insight into the great harvest-field of God in which they had been sent to labour.

Society of Arts.—The annual *conversazione* of the Society of Arts was held on Wednesday evening at the South Kensington Museum. Lord Henry Lennox, M.P., and the Council received the company in the South Court. The numerous corridors, courts, and galleries quickly became crowded, and the varied evening dresses of the ladies gave a grace and brilliancy to the scene. In the North Court a promenade concert was given by the band of the Coldstream Guards. In the lecture theatre a vocal concert was given every half-hour by the London Glee and Madrigal Union. The art library was specially opened, but it was too obvious there were greater attractions elsewhere. The picture-galleries were crowded—there were lingerers in front of well-known paintings to the last moment; nor were the refreshment-rooms forgotten, in spite of the innumerable objects of attraction contained in the museum.

Sheffield Medico-Chirurgical Society.—The members of this Society dined at the Royal Hotel last week, to commemorate the termination of the winter session. Dr. Hall, the President, was in the chair. There was a good attendance of the members; several good speeches were made, and a very pleasant, jolly evening was spent in right good fellowship.

Dr. Cameron, of Dublin, has commenced a short course of lectures on "Public Health," at the Royal College of Surgeons. The auditory was large, including many ladies and distinguished members of our Profession.

The following are the names appended to Mr. Barnard Holt's papers for the coming election at the College of Surgeons:—W. White Cooper, Berkeley-square; J. R. Martin, Upper Brook-street; John Marshall, Savile-row; James R. Lane, Berkeley-street; J. W. Hulke, Old Burlington-street; William S. Savory, Brook-street.

Dr. Paget, the Regius Professor of Physic, has been elected by the University of Cambridge representative of Medicine on the Medical Examining Board for England, and Professor Humphry as the representative of Surgery at the same Board.

Dr. William Carlos, of Long Melford, was thrown from a dog-cart on Monday (caused by the pony shying), and sustained a fracture of the skull and other severe injuries, from which he died within half an hour.

The Islington Guardians are determined to rigidly put the law in force with reference to vaccination. Mr. Broome, the Vaccination Officer, has been instructed to continue to prosecute a man who had been three times prosecuted, convicted, and fined, but still remained recalcitrant; and he was further instructed to prosecute in every other case of a similar character.

The Royal Berkshire Hospital.—We are glad to find by the annual report of this institution for the past year that the appeal of the Board of Management—not for donations only, but for increased annual subscriptions—was readily responded to, and that the total ordinary receipts amounted to nearly £920 more than those of the previous year, enabling the Committee to close the accounts of 1871 with a balance in hand of £11 3s. 11d., after clearing off the adverse balance (£32 3s. 6d.) of the previous year. The Committee draw especial attention to the appointment for the first time of a "Hospital Sunday," from which source alone the receipts amounted to £778 17s. 8d., being an increase of £257 3s. 5d. on the preceding year. There had been two more in-patients admitted during the year, making the number 862. The out-patient list shows an increase of twenty-two fresh cases; and the number treated is eighty-nine in excess of the former year, owing to a large number of out-patients of the previous year (1870) being still under treatment at the commencement of 1871.

It is announced that the net result of the fancy fair in connexion with Prince Arthur's visit to Liverpool amounts to £20,000, which will be handed over to the new Southern Hospital.

The outbreak of cholera at Cawnpore has been quite stamped out. No new cases had occurred for several days.

We regret to announce that on Friday last a son of Dr. Atkinson, of Leeds, a youth 8 years old, and Miss Rodier, his governess, were both drowned in Morecambe Bay. The latter lost her life in attempting to save the boy, who got out of his depth in wading a dangerous pool.

How to stamp out Small-pox.—The Local Government Board has sanctioned a gratuity of £5 voted to Mr. George Stevens by the Board of Guardians of the Sudbury Union for services rendered during the prevalence of small-pox in his district. He had ten cases under his care, and although three had the disease in its worst form (confluent), they have all recovered, and there has been no fresh case for the past five weeks. Primary vaccination and revaccination were attended to. A cottage, situated in the midst of fields some distance from the village, was furnished at the expense of the guardians. This cottage is called the pest-house, and in years gone by was used for the reception of small-pox cases in the days of inoculation.

The Monthly Report on the Health of St. Marylebone.—Dr. Whitmore states—"During the five weeks which ended on the 1st day of the present month, the number of deaths registered was 359—males 169, females 190. The consecutive weekly returns were 71, 84, 76, 51, 77, which in the aggregate were equivalent to an annual death-rate of 23·45 per 1000 of the living population of the parish. As compared with the rate of mortality of previous months in the year these returns are satisfactory, but they exceed by rather more than 2 per 1000 the death returns of the corresponding month of last year." Through the courtesy of Mr. Bedford, the clerk to the Board of Guardians, Dr. Whitmore will in his future reports be enabled to give the number of primary vaccinations performed in the parish by the public vaccinator, and also by private Practitioners. "These returns will be valuable, as showing the extent to which vaccination is carried out in this district of the metropolis. It may be estimated that of all the children born in St. Marylebone, from 12 to 15 per cent. of them die in the first few weeks of their existence—that is to say, before they are of sufficient age to undergo the operation of vaccination. If, therefore, it is found that during a period extending over six months the total number of vaccinations approximate to within 12 or 15 per cent. of the total births, it will be a proof that this necessary safeguard against small-pox has not been neglected."

A Fancy Fair.—The financial result of the great fancy fair held during the week of Whitsuntide for the benefit of the funds of the new Royal Southern Hospital, has been eminently satisfactory. The total proceeds have been £25,035 18s. 2d.; and, after deducting all expenses, the Hospital has been benefited by £20,051 11s. 5d. A small additional sum will accrue from a few things that are not yet sold.

Health of Scotland.—2609 deaths were registered in the eight principal towns during the month of May, of whom 1332 were males and 1277 females. Allowing for increase of population, this number is also 6 under the average for May during the last ten years. A comparison of the deaths registered in the eight principal towns shows that the annual rate of mortality was 18 deaths per thousand persons in Perth, 23 in Dundee, 24 in Aberdeen, 26 in Greenock, 27 in Leith, 31 in Glasgow, 32 in Paisley, and 33 in Edinburgh. Of the 2609 deaths registered, 1085, or 41 per cent., were of children under 5 years of age. In Perth, 15 per cent. of the persons who died were under 5 years of age; in Aberdeen and in Edinburgh, 33; in Paisley, 38; in Leith, 43; in Greenock, 44; in Glasgow, 46; and in Dundee, 47 per cent. The zymotic (epidemic and contagious) class of diseases proved fatal to 595 persons in the eight towns, and constituted 22·8 per cent. of the mortality. From the prevalence, however, of small-pox in Edinburgh and Leith, this rate was exceeded in each of these towns, the proportion of deaths from zymotic diseases being 36·0 in Edinburgh, and 33·6 in Leith. The most fatal epidemic was hooping-cough, which caused 185 deaths, or 7·1 per cent. of the mortality. In Glasgow 10·1, and in Paisley 10·8 per cent. of the deaths were caused by hooping-cough. Small-pox still continues on the decrease, the number of deaths from that cause being 149, or 5·7 per cent. of the mortality. As in last month, the towns which suffered most were Edinburgh, Leith, and Aberdeen, the proportion of deaths being respectively 18·6, 17·3, and 5·2 per cent. of the mortality in each of these towns. Fever caused 66 deaths. Of these, 37 were tabulated as typhus, 18 as enteric, 6 as relapsing, and 5 as infantile remittent fever. Scarlatina caused 58 deaths (of which 38 occurred in Edinburgh), measles 28, croup 28, diarrhœa 26, diphtheria 23, dysentery 3, metria 2, and cholera 1. Forty-eight deaths were ascribed to apoplexy, 61 to paralysis, 117 to diseases of the heart, 83 to hydrocephalus, and 146 to premature birth debility. The deaths from inflammatory affections of the respiratory organs (not including consumption, hooping-cough, or croup) amounted to 469, or 18·0 per cent. Those from consumption alone numbered 366, or 14·0 per cent. of the total deaths. Seventy-eight deaths resulted from violent causes, one of which was a suicide. One death was caused by delirium tremens, and six by intemperance. Seven of the persons who died had passed the 90th year of life. They were all females, and the eldest was aged 98 years.

Dr. Shortt's Cobra Experiments.—I invariably keep a cobra or two for the purpose of experiments, and these snakes are attended to by a snakeman that I employ for the purpose. Once in every ten days or fortnight they are fed with sour milk or curds (*tyre*): a leaf funnel is placed in the open mouth of the snake, and the curds are poured in till the snake is filled out from end to end like a sack. By this method I have kept snakes alive for two years without any difficulty, in full vigour and quite effective for purposes of experiment. When an experiment is about to be conducted the snakeman pushes the cobra out of its receptacle by the end of a stick, and then seizing the snake by the tail, he places his stick on the neck as close to the head as possible, and now stamping the tail with his right foot, he seizes it by the head with his left hand, and I receive the snake from him by seizing its head with my left hand, placing the thumb on the top and the index finger under the head near to the base of the skull, so as to give the jaws free play. In the meantime the snake entwines itself around my forearm, and its struggles against my forearm are very powerful. In the case of a full-sized cobra the animal to be bitten being already thrown and held fast by assistants, I seize a part of the back of the thigh with the thumb and index finger of the right hand, and the part to be bitten is pushed out prominently, and with the left hand the mouth of the cobra is brought to bear against the part. In the case of a fresh cobra there is always some difficulty in getting the snake to bite at first, and I am obliged to pass a little stick into the mouth of the snake and open it by the aid of an assistant, and apply it thus to the part intended to be wounded, when it seizes the part. After an experiment or two the cobra seems to understand what is required of it, and it is quite ready to seize any

part presented to it, which it grasps with its jaws two or three times, or even oftener if allowed to do so, more especially when much irritated. There is a free relaxation of the jaws after each grasp, and the snake endeavours to extend its holding beyond the first wound, or to gather in its jaws as much of the part as it can at each subsequent grasp. These particulars I have here entered into to explain the whole process, which I have been repeatedly asked to do.—*Madras Monthly Journal of Medical Science.*

Dr. Reuben A. Vance, of New York, says—"The careful observation of the intra-ocular structures with the ophthalmoscope, continued at short intervals for a length of time, will in certain cases reveal phenomena of great interest, both in a physiological and pathological point of view. This is especially true when the patients are women and the observations extend over such epochs as pregnancy and lactation, or menstruation and the climacteric period. We have then an opportunity of watching the effect upon the cerebral circulation of those bodily states which are notoriously competent to induce changes in the mental tone of the individual, and which, in certain cases, cause a most distressing form of insanity. The phenomena of menstruation may be attended by disordered vision, and it is possible that such visual disorders are due to the general commotion to which the female organisation is subjected at this time, yet such cases are rare; and Dr. T. Clifford Allbutt, of Leeds, in his recent work, says that he has never been able to satisfy himself of their existence. I have seen a number of cases in which photophobia and dimness of vision were complained of at the monthly periods, in which the ophthalmoscope did not reveal any disorder of the intra-ocular structures, and others again where hyperæmia of the disc and retina to a very marked degree, occurring at the same time, was unattended by any defect of vision. . . . The ophthalmoscopic appearances in the majority of cases in which symptoms referable to the cerebro-spinal system have been observed, are such as denote an increase in the quantity of blood in the intra-ocular structures. The retinal circulation is affected, but not to the same extent as that of the disc. The vessels of the latter are enlarged and their number increased. It may even assume a crimson appearance, and I have occasionally seen it so congested that the whole fundus oculi appeared of a uniform colour and the site of the papillæ could only be discovered by tracing the retinal vessels to their point of convergence. The arteries of the retina may be but slightly affected—as a rule they are not enlarged to any great extent—but the veins are increased in size and number, and their course becomes irregular and tortuous. It is the proper vessels of the disc which undergo the greatest change, and the chief evidences of congestion will be observed at the intra-ocular termination of the optic nerve."—*Boston Medical and Surgical Journal.*

Discoloration of Chinese Children.—We have often observed over the sacral region of new-born children, and during infancy, but never once in adult life, a peculiar bluish mark of considerable size. The Chinese are all familiar with it, and call it, *par excellence*, the "black" (*tsing*). From the general belief in metempsychosis, old women assert that it is caused by the dead person lying upon the cash which is placed in the coffin of the deceased. Money is added by the friends and others we know in such circumstances with the view of giving wealth to the departed in the other world. Or this may probably have originated in the older idea of placing gold and other metals in coffins to prevent putrefaction. We have obtained no physiological explanation of this mark. It is not a "mother's mark."—*Report of the Peking Hospital, by Dr. John Dudgeon.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Mr. Bryant's Lecture on Aneurism next week.

Dr. Pearse's Report on the Treatment of Small-pox shall appear as soon as possible.

We have received a copy of a letter addressed by Dr. Vans Bert, of Aberdeen, to the authorities of that city, with regard to Epidemic Hospitals. The remarks seem most sensible, and are certainly worthy of attention.

Dr. Johnson, Bayswater.—We think you will obtain all you require of Messrs. Butler and Co., Elm-street, Gray's-inn-road; or, if failing there, of Mr. E. Collier, 38, Myddelton-street, E.C.

We are sorry to see the announcement of the death of Mr. Thomas Edward Stainthorpe, a promising young Surgeon of Hexham. We shall give particulars next week.

W. P. S.—The late Sir William Blizard, of the London Hospital, suggested and first practised the operation of tying the superior thyroideal artery in bronchocele, and was one of the first Surgeons who secured the subclavian artery. He introduced the practice of large and repeated abstractions of blood in fractures of the ribs. See Mr. Cooke's memoir of this venerable gentleman, who died in his 93rd year.

Glycerined Lymph.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Can you inform me how the "glycerined lymph" spoken of by Dr. Müller is prepared? I am, &c.,

June 11. A. S. B.

*** Dr. Müller employs equal parts of chemically pure glycerine and distilled water. These are thoroughly mixed in a watch-glass by means of a fine pencil. The proportion of one part of lymph to five of this diluted glycerine forms a good inoculable matter. If immediate vaccination is desired the lancet should be charged by means of the pencil. If it be desired to keep the lymph it may be put either into capillary tubes or in a phial holding half or a whole drachm. This need not be filled, and has only to be secured by a cork; but before using the lymph it ought to be rubbed up again with a pencil. The lymph in this way may be kept for months, especially when placed between glass plates. It should not be exposed to the light, but warmth does not injure it.

Chromic Acid.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I have just now seen the *Medical Times and Gazette* for April 27, containing a notice of Dr. John Dougall's paper on "The Power of Various Substances in Preventing the Appearance of Animalcules in Organic Fluids," in which he praises chromic acid for being a powerful germicide, etc. I have merely to call your attention to a very interesting paper by Dr. H. S. Purdon, of this town, a few years since in the *Journal of Cutaneous Medicine*, vol. ii., where the same ideas are stated, and where its therapeutic action in different affections is clearly stated.

Belfast, June. I am, &c., General Practitioner.

Tinnitus Aurium.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Will any of your correspondents kindly inform me if they have met with a case similar to the following, or can suggest any hints as to treatment?—

E. G., aged 30; single female, healthy parents; two years since was revaccinated, being at the time in perfect health. The revaccination took well, but seems to have had rather a depressing effect on her mind. Within a month of the operation she complained of tinnitus aurium, and ever since she has never been for one moment—except when asleep—free from constant undefinable sounds in her head. The rushing of wind, or of a railway train in motion, or the roaring of the sea, are the comparisons she makes in describing them. Her wonder is that no one else hears them. In all other respects she is well, and I can discover nothing abnormal about her. She has had a slight paroxysm of hysteria since she has been under my observation. I have tried zinci val., steel, bromide of pot., arnica, nux vomica, argenti nitras, a seton, change of air, without the slightest result.

Ilfracombe, June 11. I am, &c., Edwyn Slade-King, M.D.

*** Our own experience is, that not a more intractable symptom has to be dealt with; but we pin our faith to steel, wine, and "recuperation." We assume that the physical state of the case has been explored.

The Derby.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The white hat, the blue veil, the dust-coat, and the field-glasses laid out as on former occasions by the faithful Shadrach, alas! will not be required. If ever a plan is arranged—a ball, dinner, stall at the opera, rose show at the Crystal Palace, ladies down to lunch, archery and croquet—some critical case invariably interferes. Supposing one participates in these sports, there is no enjoyment when the mind is full of anxiety.

This morning, at breakfast, I received one of these unpleasant notes winding up, "Come as soon as you can, and bring the instruments!" However, fortunately, the labour was easy—breech presentation, spina bifida, child alive; the mother frightened in seventh month of eighth pregnancy by a fire on board ship. In the last year six women (if not more), whose deliveries previously were instrumental, had natural labours. Still, Practitioners handy with the forceps are always to be envied. One patient states that her mother and three sisters died of puerperal fever. Another was a nurse six years in a Hospital where cholera, variola, scarlatina, and typhus were treated, she escaping until the last year, when attacked with the latter fever. In the early months of first pregnancy she was struck in the back by a drunkard, the child at birth similarly marked. Another attributes metritis to cold caught mending twenty pairs of damp stockings the day after labour, as her husband, who required three bottles of rum a day (tenpence a bottle in the colonies), was in pecuniary difficulties. Another, aged 36, gave birth to a girl fourteen years age; no children since. Now she is pregnant, the fact being that a break occurred. Her husband was in gaol two months, and returned bloated with Indian meal. "Sir, I wish they had kept him in prison or even hung him, sooner than this misfortune should have happened," piteously cried the poor woman. A lady contracted scarlet fever badly after sixth labour; child removed did not take. Four years after, when delivered of eighth child, she again had scarlet fever, which extended to all the family, including the young infant and the child previously exempt. A woman marries at 24, and two years after, dancing at a ball, menstruates for the first time, but only once until another ball twelve months after, when she became a little more regular, but not sufficiently so until she left Malta and came to England. Another woman, vaccinated in infancy, had variola badly in India, yet when recently revaccinated healthy infantile vesicles were developed. She states that she had jungle fever from quickening to delivery; at times maniacal, beating people with sticks; labour easy. The child unaffected; took

cholera six months after, but recovered. States, also, that marching from Deorallee to Seetapore, a young officer, bitten by a favourite dog, died three days after of hydrophobia—a disease prevalent amongst the jackals, and, once recognised, never forgotten. In 1858, making a post-mortem, I cut my finger badly without any rabid results. Probably the Turkish bath and hypodermic injections of morphia, atropine, and belladonna along the spinal cord and nerve tracks would be of service. The other evening, Sir W. Gull and Dr. Sutton gave the results of four years' work in an elaborate paper, to prove that Bright's disease is a gradual, general, insidious, and fatal condition, depending on thickening of minute arteries (of fibroid character) in all parts of the body, especially in the pia mater—as far as I could understand—but, as the Yankees say, it is one of the subjects not posted in. However, other speakers primed to the muzzle all about muscular hypertrophy, arterioles, the left ventricle, the elimination of urea, the condition of the sclerotic, etc., aired their own views, damned the paper with faint praise, and, amidst ironical cheers, said, "Where are *your* specimens? here are *ours*." Dr. Johnson gallantly and cleverly defended his castle of theories now attacked in a short and interesting speech; Sir W. Gull, waiting until the arrows of criticism were expended, none of which appeared to have penetrated his armour of good nature, then advanced smiling, and, promising to show the specimens, told us, amongst other stories, of a young lady at Brighton, noticed at dinner to have an uræmic breath, and who died in a few days. Although it is very sad to think that diagnosis so often spells death, we are taught the lesson, in scarlet fever and other diseases, to direct more than ever extreme attention to the renal functions. At the present time, peculiar phases of insanity demanding research, it is curious to read of Howard the philanthropist as a tyrant at home, killing his wife by cruel treatment; and of Dean Swift, who, noticing the branches of a tree decay, truly prophesied that he would die at the top first. The telegram comes in—"Cremorne," the winner of the Derby. As a Medical student, I once visited pleasure-gardens of that name by mistake, endeavouring to find Exeter Hall. Arrayed like Solomon in all his glory, my wife will not figure at Scarborough this summer. Our weakly boys will lose the advantage of the πολυφλοισβοιο θαλασσης as well as the pleasure of grubbing and digging in the yellow sands. There will be "wigs on the green" presently. Mrs. Smith is right—it does not matter to bachelors; but the father of a family, having given hostages to fortune, should stick to his practice instead of stock-jobbing, gambling, and making a fool of himself by betting on scratched horses such as

WINSLOW.

THE LATE MR. MCCHRISTIE.

An appeal is being made on behalf of the widow of the late T. Y. McChristie, Esq., Revising Barrister for the City of London for fourteen years. Mrs. McChristie, on the death of her husband, purchased an annuity in the European Assurance Society, and now, by the insolvency of that office, her annuity is entirely lost. The subscriptions already received amount to £131 8s.

Subscriptions will be received and acknowledged by A. C. McLaren, Esq., 60, Harley-street, Cavendish square, W.

Besides being a member of the Equity Bar, Lincoln's-inn-fields, Mr. McChristie had been, previous to being called to the bar, a Member of the Royal College of Surgeons of England since 1828. In the same year and subsequently he reported the well-known lectures of Mr. Abernethy.

COMMUNICATIONS have been received from—

Mr. RUMBALL; Dr. HUGHLINGS-JACKSON; Dr. SLADE-KING; Dr. PHILLIPS; Messrs. ARNOLD and SONS; Mr. TEEVAN; GENERAL PRACTITIONER; A BAYSWATER M.D.; Dr. ALLFREY; Mr. J. CHATTO; Mr. WILLIAM YEATS; Professor SPENCE; Dr. C. J. B. WILLIAMS.

BOOKS RECEIVED—

Notes on Sanitary Reform—The Health of Towns, by a Member of the Association for the Promotion of Social Science—A Treatise on Diseases of the Bones, by Thomas M. Markoe, M.D.—On Diseases of Infancy and Childhood, by J. Lewis Smith, M.D.

PERIODICALS AND NEWSPAPERS RECEIVED—

Edinburgh Courant—Ormskirk Advertiser—British Trade Journal—New York Medical Journal—American Journal of Insanity.

APPOINTMENTS FOR THE WEEK.

June 22. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

24. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

25. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

26. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

SOCIETY OF ARTS, 4 p.m. Annual General Meeting. (No visitors.)

27. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

28. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 15, 1872.

BIRTHS.

Births of Boys, 1103; Girls, 1086; Total, 2189.
Average of 10 corresponding weeks, 1862-71, 1932·4.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	617	590	1207
Average of the ten years 1862-71	665·6	568·5	1234·1
Average corrected to increased population	...	...	1358
Deaths of people aged 80 and upwards	...	...	44

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	6	1	1	1	5	...	3	3	2
North ...	751668	10	8	3	1	13	...	4	2	6
Central ...	333887	...	7	...	1	4	...	1	1	3
East	638928	6	4	..	...	8	...	1	...	2
South	966132	15	13	8	...	11	1	3	3	3
Total	3251804	37	33	12	3	41	1	12	9	16

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·640 in.
Mean temperature	57·9°
Highest point of thermometer	81·3°
Lowest point of thermometer	47·7°
Mean dew-point temperature	51·4°
General direction of wind	S.S.W.,S.W.,&W.S.W.
Whole amount of rain in the week	0·33 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 15, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending June 15.	Deaths Registered during the week ending June 15.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·1	2189	1207	81·3	47·7	57·9	14·39	0·33	0·84
Portsmouth ...	115455	12·1	81	63	77·6	40·0	55·5	13·05	0·81	2·06
Norwich	81105	10·9	62	34	77·8	41·0	56·3	13·50	0·73	1·85
Bristol	186428	39·8	140	85	68·1	47·1	55·8	13·22	...	...
Wolverhampton ...	69268	20·5	55	34	77·7	42·4	55·1	12·83	0·73	1·85
Birmingham ...	350164	44·7	275	145	74·6	43·6	55·4	13·00	0·94	2·39
Leicester	99143	31·0	79	62	82·2	41·7	55·5	13·05	0·52	1·32
Nottingham ...	88225	44·2	63	35	79·8	41·7	55·4	13·00	0·50	1·27
Liverpool	493897	97·9	399	258	71·1	47·0	55·0	12·78	0·59	1·50
Manchester ...	352759	78·6	299	175	...	...	...	...	...	...
Salford	127923	24·7	121	51	74·0	43·8	53·6	12·00	0·76	1·93
Oldham	81004	20·2	73	39	...	...	...	...	...	...
Bradford	151720	23·0	125	76	71·2	45·6	56·4	13·55	0·69	1·75
Leeds	266564	12·3	215	124	75·6	45·0	54·7	12·61	0·54	1·37
Sheffield	247847	10·9	188	102	75·2	44·0	55·3	12·94	0·33	0·84
Hull	124976	35·1	91	44	78·0	41·0	55·3	12·94	0·22	0·56
Sunderland ...	100665	30·4	82	37	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	100	64	68·0	45·0	53·7	12·06	1·00	2·54
Edinburgh	205146	46·3	159	103	71·0	45·0	56·4	13·55	0·69	1·52
Glasgow	489136	94·8	354	261	...	...	...	...	...	...
Dublin	310565	31·9	212	143	71·9	45·5	57·3	14·05	1·13	2·87
Total of 21 Towns in United Kingd'm	7393052	34·0	5362	3142	82·2	40·0	55·6	13·11	0·65	1·65

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·64 in. The highest was 30·06 in. at the end of the week, and the lowest 29·28 in. on Sunday evening.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office; this revision added 2156 (principally shipping population) to the unrevised number published in the preliminary Census Report. The population of Dublin is taken as stationary.

ORIGINAL LECTURES.

ON THE TREATMENT OF ANEURISM.

By THOMAS BRYANT, F.R.C.S.,
Surgeon to Guy's Hospital.

Lecture I.(a)

Gentlemen,—I propose to occupy the hour that is at our disposal to-day in considering the treatment of what is known as *aneurism*, and I shall make only just sufficient preliminary observations upon its pathology as to render the clinical remarks that are to follow intelligible.

In a practical point of view, aneurism may be divided into two classes—the *sacculated* and the *tubular* or *fusiform*. The sacculated consists of a sac communicating more or less freely with the artery, and a wall composed of some of the coats of the vessel or of the condensed tissues that surround it. As long as the aneurism is sacculated, it is immaterial whether one or more of the coats of the artery itself, the arterial sheath, or the parts around form the sac. When the sac ruptures, and the blood becomes effused into the surrounding tissues, a diffused aneurism is said to exist; but clinically it is well to regard such cases as these as examples of ruptured arteries, for they have practically to be treated on the same principles. For the present such cases may be dismissed from our consideration.

The tubular or fusiform aneurism is a general dilatation or expansion of the whole calibre of the vessel, and will possibly claim attention at a later period. The remarks I to-day intend to make are applicable only to the *sacculated aneurism*.

Pathologically, let us ask how such an aneurism is to be cured. What means does Nature adopt to cure such an affection when she is left to herself?—for upon such knowledge alone can a scientific treatment of the affection be based. Happily, our knowledge upon this point is tolerably definite; for in all cases of cured aneurisms the sac is found filled up with coagulum. And this coagulum we now know to be mechanically deposited in the sac by the stagnation of blood in it, or the feeble flow of blood through it. To obtain this feeble flow of blood or its stagnation are the objects of all our treatment, Medical and Surgical. In aneurisms that are beyond the reach of the Surgeon it is sought for by absolute rest and low diet, and sometimes bleeding—Valsalva in former days adopting such a practice very freely.

In aneurism of the extremities it is now sought for by arresting the flow of blood in the artery as it passes into the sac, and, when this cannot be successfully employed, by arresting the flow of blood in the vessel as it passes from it.

In the former cases the Surgeon's treatment is applied to the afferent vessel, in the latter to the efferent.

The treatment of an aneurism through the afferent vessel or artery by means of which the blood flows into the aneurism will now claim our attention. The treatment through the efferent will receive notice by-and-by.

Now what are the means at the Surgeon's disposal by which he can obtain the mechanical closure of the aneurismal sac by the deposition of coagulum? In what way can the circulation of the blood into the aneurism be arrested? In the extremities forced flexion of the joint will do this sometimes most effectually; and in certain cases, when it can be tolerated, nothing more is needed. Pressure upon the trunk of the vessel is the second way; and ligature of the artery is the third. By one or other of these means, or by the two former combined, most aneurisms of the extremities may be dealt with. We will now proceed to consider under what circumstances these three methods are applicable. But before doing so, let me remind you that they all act upon the same principle; by all the flow of blood through the aneurism is arrested, and the coagulation of blood, and formation of a clot in the aneurismal sac is favoured. In support of this assertion, I will just show you one or two specimens. This preparation was taken from a man whose case is as follows:—

Femoro-Popliteal Aneurism—Ligature of Femoral—Death from Pyæmia.

[Reported by Mr. Harrington.]

George T., aged 37, a railway ticket collector, was admitted into Naaman Ward, Guy's Hospital, under Mr. Bryant's care, having been sent in by Mr. Brenchley, of Camberwell. He reported that he had always been a healthy man up to sixteen days ago, when he strained his left knee when walking across the buffers of two railway trucks, which were moving slowly. He felt no ill effects at the time, and went on with his work. Three days after the accident a swelling appeared suddenly on the inner side of and behind the knee. The swelling was accompanied with some local pain. He walked home and went to bed, where he remained till he was sent to Guy's by Mr. Brenchley. On admission a large pulsating swelling occupied the inner side of the left thigh and popliteal space. The pulsations in the swelling were very marked both to the eye and hand; it expanded in all directions. Pressure upon the femoral artery above arrested it. Pulsation existed over a space of four or five inches vertically, and eight or nine transversely. The leg was œdematous. The circumference of the left limb was two inches greater than the right, over the tumour. Mr. Bryant, on account of the large size of the aneurism, its rapid progress, its expansive nature, and the œdema of the limb below the tumour, indicating vein pressure, determined to apply a ligature to the femoral artery. He feared delay, and that in such a case pressure was too hazardous.

This he did, therefore, on February 9, no difficulties being experienced in the operation. The artery was deep, as the man was fat.

On February 14 a slight blush appeared on the wound, and a rise of temperature—104·3°. Mr. Bryant opened its margins; some retained pus escaping.

18th.—Diarrhœa appeared. Temperature 103°.

19th.—Is in no pain; sleeps well; wound healthy; appetite indifferent. Temperature 103·9°. The aneurism has much diminished in size.

22nd.—Rigors and sweating appeared. Pulse 120; temperature 104·3°.

26th.—Died; having gradually sank.

Post-mortem.—Evidence of septicæmia. Aneurism divided after having been soaked in spirit. Aneurismal sac composed of muscle; artery ruptured, and the borders separated one inch and a half. Good clot in sac; efferent artery filled with clot. At seat of ligature inner coats divided, but not separated.

Now look at this preparation. Here is the artery divided; there is distinct rupture of all the coats of the vessel, the opening into the aneurism being at least an inch in length. The whole of the sac is composed only of condensed cellular tissue and muscle, none of the coats of the artery entering into its formation. As perfect a sacculated traumatic aneurism exists as any non-traumatic dilatation of the vessel you may imagine for yourselves. It is, moreover, filled with coagulum, which is indistinctly laminated. It was undergoing a cure, and had not pyæmia unfortunately appeared, a good result might have been expected. I should like to remind you in passing that, although so much is said about the laminated clot, you are not to look to obtain a clot like the one in this bottle; that specimen is the most perfectly laminated clot in existence, but that clot was taken out of an aneurism twelve years after Mr. Key had tied the subclavian artery for axillary aneurism. We can hardly say what process or changes that had undergone, considering it had been deposited for twelve years after ligature and cure had taken place. All clots, however, deposited during life are laminated to a degree. The slower the deposition the more laminated is the clot. An example of a rapidly formed clot you see in this preparation. This was cured by pressure in twelve hours; and here you see nothing but an irregular clot deposited in the aneurismal sac.

We will now proceed to consider these different modes of treatment; and first as to flexion. The advantages of arresting the flow of blood through an artery by flexion are not sufficiently recognised. It is not only useful in aneurisms, but it is most useful at times in hæmorrhage generally. For example, most of you in the course of practice will have cases of hæmorrhage from the palm of the hand—a punctured or deep wound that you cannot deal with; you cannot pick up the artery, you cannot cut into the palm of the hand, but you must adopt some means by which the hæmorrhage may be arrested. Most men would be contented with simple pressure and elevation of the limb; but in addition to this, and sometimes without it, you can do much better by flexing the arm upon the forearm and supinating it. You can thus completely arrest the flow of blood through the brachial artery. In some subjects, however, sufficient flexion cannot be obtained to produce such a result. In such you are perfectly justified in putting a small pad in the bend of the elbow, and thus effecting the desired end. In the leg we may get similar results by forcible flexion of the thigh upon the pelvis, so bending the artery upon itself as to produce its occlusion. In that way we may completely arrest the circulation through

(a) Delivered in March, 1872.

the femoral artery, and produce the cure of a popliteal aneurism. Of course, that plan of treatment is only applicable in cases of aneurism of the extremities, and in only a certain class of aneurism of the extremities. Unhappily, however, this practice is not very applicable in the large majority of cases, and for these reasons:—The first objection is the extreme pain it very often causes—of course, by doubling up the artery you double up also the nerves which run with the artery. As a rule, the pain is so great that it is almost impossible to keep up the treatment. How far that may be neutralised by the administration of anæsthetics is a question not yet fully determined; but there is no doubt it can be done to a great extent. Again, by applying forcible flexion you are apt to get some injury to the sac itself—it may even rupture, and, as I have said, rupture of the aneurismal sac is equivalent to rupture of the artery, and must be dealt with as such. When such an accident occurs to the popliteal artery it generally means amputation. Therefore, in the treatment of, say, popliteal aneurism, such a mode of treatment is to be practised with care. I myself, unfortunately, have never been very successful in this mode of treatment. I have tried it in three or four cases, but in no one could the patient bear it. I must say in passing that the credit of introducing into England the treatment of aneurism by forced flexion must be given to Mr. E. Hart, although Dr. Maunoir, of Geneva, in 1857 recorded the first successful case. I will give you some of the numerical facts now as bearing upon this form of treatment, which I have abstracted from a paper by M. Liégeois. Out of 45 cases of popliteal aneurism treated by flexion, 11 were cured, 11 were cured by flexion and other measures, 23 failed, and in 7 of these rupture of the sac took place. Now, that is a large proportion in which to get rupture of the sac—7 out of 23. What became of the cases where it failed, I do not know. The success I have recorded, however, is enough, accompanied with the theory of treatment, to warrant its application in all cases of small aneurisms of the extremities, in aneurisms that are not rapidly developing. I will now read you a case in which the treatment by flexion and pressure combined proved successful.

Aneurism in the Calf of the Leg, cured by Pressure and Flexion.

[Reported by Mr. Bettany.]

Thomas E., a stonemason, aged 40, was admitted into Guy's Hospital under the care of Mr. Bryant, on October 5, 1869. He was a muscular and healthy man in appearance. He had served in the army as an engineer during the Crimean campaign, and had received a severe injury to his skull from a rifle ball—the right frontal bone having been fractured and driven in at least half an inch. He had, however, no brain symptoms at the time, and even at present beyond the depression in the forehead feels no evil effects of the injury. When he came to England in 1857 he was discharged.

Three years since he observed a swelling at the back of his right leg, just under the knee. Six months after this he applied to St. Thomas's Hospital, where he was admitted under Mr. Simon for aneurism of the posterior tibial artery. It was treated by compression of the femoral artery in various ways for six months, when he was discharged as cured. Tourniquets, weights, and local pressure over the aneurism were employed at different times. The tumour became smaller and pulsated less by these means, but always "beat."

He returned to his trade on leaving St. Thomas's, when the swelling began to increase, and as this steadily progressed he came to Guy's. On admission a pulsating tumour was detected, three inches in diameter, in the upper part of the calf of the right leg. The leg at this part measured one inch more in circumference than the left. The aneurism was pulsatile and elastic; it could readily be emptied on the application of local pressure. Pressure upon the femoral artery having had its fair trial at St. Thomas's, Mr. Bryant wished to try flexion, as he found by flexing the leg upon the thigh all pulsation could be arrested in the aneurism. He accordingly so fixed the limb by means of a figure-of-eight bandage. The pain, however, in about an hour became so intolerable that the treatment had to be given up. The method was, however, re-employed on three different occasions, and on one with an air-pad over the aneurism, but with no success.

At 8 p.m., on October 8, Mr. Bryant placed the patient on his side with the leg and thigh flexed and raised upon a pillow. The patient with his hands forcibly flexed the knee, this action stopping all pulsation in the aneurism. At the same time he was told to apply digital pressure to the femoral artery in the groin when the crampy pain in the leg became intolerable.

October 9.—The patient kept up during last evening and night the treatment advised, alternating every half-hour or so the treatment by flexion with the leg upon its side and digital compression in the groin of the femoral artery; and at 2 p.m., eighteen hours after it was commenced, when Mr. Bryant visited him, all pulsation had ceased in the aneurism—the tumour feeling more solid. Mr. Bryant advised, however, that the treatment should be maintained for another twenty-four hours, to make the cure certain. This was done, and as at that time the tumour was quite solid it was given up.

The man stayed in the Hospital another three weeks, when he left with the tumour a small indurated swelling. He was seen a month or six weeks later quite well.

Now, the case I have just read to you is a very good one; it well illustrates the effects of a combined form of treatment. It was in no way troublesome; the man understood what he had to do. I simply suggested it to him on account of a case I had about a year before,(b) where a man who had been under my care for aneurism previously, cured himself of a second large aneurism by pressure in four hours and a half. So you see this combined form of treatment answered admirably. The man simply rested upon his side, clasped his hands round his bent leg, and forcibly flexed the leg upon the thigh, and thigh upon the pelvis. He stood this until the pain became unbearable, and then pressed the femoral artery in the groin, so alternating; and in eighteen hours a complete cure resulted.

We now come to the question of simple compression, and I will read you the history of a case most of you will have seen in Naaman Ward, and many of you have had a hand in its treatment.

Popliteal Aneurism—Digital Pressure—Cure in Forty Hours.

[Reported by Mr. Harrington.]

Robert R., aged 31, a corn dealer, residing at Clapham, was admitted into Guy's Hospital, under Mr. Bryant's care, on February 15, 1872, with a popliteal aneurism in his right leg. He had been sent in by Mr. Cock. It appeared that three months previously, when lifting a sack of corn, he strained his right knee, but he thought little of the accident. For a month he felt occasional pain and numbness in the leg, and then discovered a swelling on the outer side of the right popliteal space. This swelling gradually increased, and on that account he sought Mr. Cock's advice. He was a strong and healthy man. He had never had syphilis or rheumatism. In the right popliteal space a tumour two inches long in its vertical diameter existed, which pulsated. By pressure upon the artery above pulsation could be arrested, and by pressure upon the tumour the swelling could be greatly diminished. On removing the pressure the swelling reappeared, expanding rapidly. There was no œdema of the leg.

Mr. Bryant thought it was a good case for pressure. At 4 p.m. on the 15th, consequently, digital pressure was commenced, a number of qualified students undertaking the task, under the direction of a responsible dresser (Mr. Burgess). The artery was compressed by means of a finger or thumb, Bellingham's weight of ten pounds being placed over the finger to save muscular exertion. This was kept up for eight hours, till twelve at night, when the patient was allowed to sleep. It was recommenced on the morning of the 16th at 8 a.m., and maintained till twelve at night, to be reapplied at 8 a.m. on the 17th. At 12 p.m. it was taken away, the aneurism having consolidated and ceased to be a pulsating tumour. Four hours before this the dresser stated that this result had been secured; but for safety it was maintained up to 12 p.m., pressure having been employed for forty hours altogether. The patient left the Hospital ten days later quite well—to keep quiet at home; the tumour being quite hard, and free from all pain. He has remained well since.

In this case the digital compression commenced the day after admission, two students watching the case for twenty minutes together, one pressing upon the artery with his thumb or finger; and to save muscular effort a weight (Bellingham's) was employed to press upon the thumb or finger, the weight being suspended to an iron bar placed across the bed. This was kept on for eight hours, then discontinued, and the man had a night's rest. The pressure was resumed the next morning, kept up for another sixteen hours, and again a night's rest followed. On the third day, when the pressure was removed, the whole thing had completely consolidated. No bad symptoms followed. The man returned home ten days later, and has since been quite well. Now, that is as good a case as you can possibly have for showing the effects of simple pressure. The treatment of aneurism in both these last cases, then, you see, was conducted upon precisely the same principle—the principle

(b) Guy's Hospital Reports. 1868.

I laid down at the beginning of the lecture: arresting the circulation of blood through the artery into the sac; and I want you to notice that in both the pressure was absolute, for upon this turns the question of the lamination of the clot. If we look for a laminated clot no doubt the process must be a slow one; but in these cases of rapid occlusion of the sac, it is not possible that a laminated clot can be formed. These cases I have given you—and I might give you more—are quite enough to prove that rapid cure is really the best; better than the slow. It is not so much pain and inconvenience to the patient, and it produces precisely the same result. So I think we may consider, pathologically, that an aneurism can be cured as well by rapid as by slow means; and there can be no doubt, in a clinical point of view, that the rapid method is much to be preferred.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CASES OF FALSE ANEURISM, WITH REMARKS.

By JAMES SPENCE, F.R.C.S.,
Professor of Surgery, University of Edinburgh.

False Aneurism of the Posterior Tibial Artery.

History.—James A., admitted to Ward XVIII. this evening (March 2, 1871) suffering from the effects of an injury sustained six weeks ago. He was engaged in pruning a gooseberry bush with a large pocket-knife, when the knife slipped and entered the inner side of his left leg, burying itself in the calf for about two inches. He drew out the knife and went into the house, when he observed blood gushing from the wound; he tied a bandage round the limb and so stopped the bleeding. The patient first applied to a veterinary Surgeon. About eight days afterwards the patient called in a regular Practitioner, who attended him for three weeks; but as the wound bled repeatedly, he was at last recommended to apply to the Infirmary, and was accordingly admitted.

On Admission.—Patient very anæmic, conjunctivæ yellow, and numerous small vesicles about the leg. A small wound was found in the upper and inner part of the calf large enough to admit the tip of the forefinger. As there was some bleeding, Dr. Pitcairn plugged the wound with lint and applied a compress, which at once checked it.

March 3.—To-day Mr. Spence proceeded to examine the wound. Immediately the dressings were taken off a gush of blood followed. An assistant compressed the femoral, but still a good deal of venous hæmorrhage continued. On inserting his finger into the wound and feeling for the bleeding point, Mr. Spence was at once convinced that both the posterior tibial artery and vein were injured. A tourniquet was applied to the femoral, the patient carried into the theatre and put under chloroform. Mr. Spence then made an incision for about eight inches along the inner aspect of the calf, dividing the gastrocnemius and soleus muscles, and exposed the vessels. While doing so a quantity of clots and pus was evacuated from the large cavity near the wound, while the surrounding tissues were more or less disorganised. On exposing the vessels, it was seen that the posterior tibial artery was injured close to the bifurcation of the popliteal, and also one of the venæ comites. Mr. Spence applied a ligature above and below the wound on both artery and vein. A ligature was also applied upon the anterior tibial, just below the bifurcation of the popliteal. The ligatures were left hanging out, a piece of lint soaked in tepid water was applied over the incision, and the foot ordered to be covered with cotton-wool, and to be slightly elevated.

4th.—Patient has passed a quiet, painless night, but had not much sleep. The circulation in the foot is very good. Mr. Spence cleared out the wound and dressed it, supporting the edges of the incision with a many-tailed bandage of lint soaked in a weak solution of chloride of soda. A piece of carbolised lint was placed between the ligature and the skin to prevent undue irritation.

5th.—Patient doing well, but has passed a restless night, the wound causing him much pain.

10th.—A ligature came away this morning. Evening: All the ligatures remaining came away this evening while the limb was being dressed.

12th.—Wound looking very healthy. Dressed with a many-tailed bandage soaked in camphorated lotion, the wound gently syringed out with weak carbolic acid lotion. General health much improved.

25th.—Wound healing rapidly. Limb still dressed with a many-tailed bandage of lint soaked in chloride of soda lotion. A bedsore, which the patient has had for the past week or ten days, on the outer ankle, is looking healthy now. Limb rests on water-pillow. General health good.

April 9th.—Wound gradually contracting. Edges kept together by plasters.

30th.—Wound healing rapidly, dressed with a narrow strip of dextrined oiled silk along line of incision and many-tailed bandage of lint. General health good.

May 8.—Wound almost healed.

14th.—To-day the patient was dismissed from the Infirmary cured.

Note (May, 1872).—When I last heard of this patient he had resumed his employment as postman in a country district, and was quite well.

False Aneurism of Radial Artery.

John A., aged 33, a farrier by trade, was engaged in shoeing a horse, when the animal suddenly withdrew its foot, and the point of the nail, which had not yet been twisted off, entered the patient's forearm, evidently wounding the radial artery. A gush of blood immediately followed, which he stopped by placing the point of his finger over the puncture until the arrival of a medical man, who applied graduated compression. The man feeling little or no inconvenience from the wound, returned to his work, and continued at it for some days, when he was obliged to cease on account of the pain and swelling which followed.

On admission, on December 18, 1871, about a fortnight afterwards, the external wound had healed, though only covered by a thin layer of newly formed tissue, while a considerable pulsating swelling, fusiform in shape, was apparent on the front of the left forearm. A piece of lint soaked in dextrine paste was applied over the seat of puncture to prevent any chance of the cicatrix giving way, perfect rest and quietness enjoined, and a gentle purgative administered.

19th.—The patient having been put under chloroform in the ward and taken to the theatre, Professor Spence cut down upon the radial artery, and, having turned out the coagula, tied the vessel above and below the wounded point with silk ligatnres. Sutures were then inserted, the edges of the wound drawn together, and dressed with a saturated solution of boracic acid. On being carried to bed the arm was placed in the supine position on a pillow.

20th.—From this date the patient went on favourably; his pulse never rising above eighty beats per minute, while the last ligature came away on January 1.

January 3.—The wound shows a tendency to break up, and there is considerable swelling at the upper third of the forearm, probably owing to the patient injudiciously leaving bed. Pulse 88. Skin hot, and patient complains of headache.

6th.—For the last two days there has been no abatement in the feverish symptoms, nor in the swelling of the limb. There was also considerable discharge connected with the wound, which led Mr. Spence to make counter-openings to favour the escape of the pus.

11th.—There is a marked improvement in the appearance of the limb; the tension and œdema are steadily decreasing, and the patient expresses himself "much better." The wounds are dressed with the lotio sodæ chlor. and chloride of zinc.

16th.—The limb is nearly of the natural size and appearance, and the patient is able to get out of bed.

22nd.—There was now no swelling whatever, and the patient left the Hospital cured.

Remarks.—The cases of false aneurism just narrated are instructive as to the treatment of wounded arteries. I think they show the propriety of immediate ligature of the wounded vessel, even although there be no bleeding when the Surgeon sees the patient. It has been said that in the case of vessels such as the radial, ulnar, or tibial—or even in those of a larger size—that if bleeding has ceased or been controlled, it is not advisable to disturb the wound, but that we may trust to the natural hæmostatic processes to complete the cure. I have always looked on such doctrines as not only doubtful, but dangerous; and in my "Lectures on Surgery" I have stated my views strongly on this subject, instancing clinical cases corroborative of my opinions as to the practice to be adopted. In the case of the wounded posterior tibial artery, if a Surgeon had been called in at first, how much suffering and danger might the patient have been saved, had the circulation been commanded, the wound freely dilated with a probe-pointed bistoury, and the wounded

vessel been secured at once? In the other case we have an instance of a smallor vessel—the radial—in which the bleeding was at once efficiently arrested, gradnated compression applied, and the punctured wound healed by the first intention, without any consecutive hæmorrhage. Yet we find a false aneurism arising some time after the injury, and requiring the vessel to be tied under less favonrable conditions. Surely there can be little hesitation as to the safer plan of enlarging the wound, exposing and tying the injured vessel at once. Before leaving the case of the radial artery I would advert to the appearance of the false aneurism in that case. The swelling was of a bright red colour, and glazed exactly like an acute abscess, and, as there was considerable pain, a superficial inspection might have led a careless Practitioner to plunge a knife into it. In another case of false aneurism of the radial, which was sent to my care by the late Dr. Cochrane, of Anchterarder, and in which the false aneurism arose after a comminuted fracture of the radius, which had united, the tumour presented precisely the same appearance as in the case narrated. The general appearance, together with the history, except for the pulsation, might easily have misled the Surgeon to snppose that the swelling was an abscess connected with disease of the injured bone.

The case of false aneurism of the posterior tibial presents some points of interest in regard to the treatment. Prior to admission the patient had suffered from repeated losses of blood, and was exceedingly anæmic; whilst, at the same time, the enormously swollen and painful state of the limb, and the severe irritative fever present at the time of admission, left little room for doubt that putrefaction and unhealthy suppuration were going on amongst the extravasated blood. Althongh, when the limb was examined by the resident Surgeon, on the arrival of the patient at the Hospital, there had been some bleeding, it was not of such a kind as to excite alarm or require more than a clean compress to be applied to replace the dressing removed. I was therefore unprepared for the forcible gush of blood which took place when the dressing was removed. I was looking at the general appearance of the limb, when the flat compress was gently lifted off, and in an instant I felt my face deluged with blood. I at once thrust my finger into the wound, and compression was made on the femoral. Of course there could be no hesitation as to immediate action, notwithstanding the very unfavonrable condition of the patient. The procednre adopted has been already described. It was the direct method, which I have always advocated—viz., enlarging the wound upwards and downwards in the conrse of the vessel which we suppose to be wounded. The reason which led me to make such a very extensive incision in this case was not merely to expose the artery easily, bnt chiefly to lay open fully the collection of coagula and fetid pns, and thus get rid of the sonrce of "the irritative fever," and avert if possible the pyæmia which seemed to be threatened. The point at which the posterior tibial was wounded, taken in connexion with the tender and swollen state of the leg and imperfect circulation in the foot, is a matter of interest, as showing how much we may trust to the vitality of tissue, even when not very healthy, and when the circulation must be carried on by the smaller arterial branches only. In this case the position of the wonnd necessitated ligature of the anterior as well as of the posterior tibial; indeed, properly speaking, the upper ligatnre embraced the lower part of the popliteal artery, and thus the arterial supply was chiefly dependent on the sural arteries and the anastomoses between the anterior tibial and articular branches of the popliteal and anastomitica magna. When we consider, moreover, that one of the large veins had been wounded, and required to be tied, and that several of the branches of the sural arteries were necessarily divided in the long incision which I made—looking also at the state of the leg and the debilitated condition of the patient—I think it will be allowed that few cases could be conceived of as less promising for saving the limb; and yet the result of this and similar cases which I have seen and recorded convinces me that amputation should never be resorted to without giving a trial to conservative measures, carefully carried out.

Mr. Edwin Ray Lankester, B.A., late junior student, Christ Church, has been elected to a Natural Science Scholarship at Exeter College, Oxford. Mr. Lankester was elected to the Burdett Coutts Scholarship in 1869, and to the Radcliffe Travelling Fellowship in 1870. There were four candidates.—*Nature.*

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Medical Times and Gazette.

SATURDAY, JUNE 29, 1872.

THE DIFFUSION OF CHOLERA IN EUROPE IN 1870-71.

A most important paper has recently been published by the Local Government Board from the pen of Mr. John Netten Radcliffe, prefaced by an epistle from Mr. John Simon, relative to the recent diffusion of cholera in Europe, and a new road to Europe for the invasion of Asiatic cholera.

In 1869 cholera prevailed, bnt not to a very great extent, in Southern Central Russia. In 1870 it broke out much more violently over all the conntry lying between Moscow and the Sea of Azov. At the same time it prevailed in St. Petersburg and along the line of the Caucasus to the Persian frontier.

In 1871 cholera became diffused through Russia in Europe, whence it extended into Siberia; bnt it did not extend westward except at four points. In July it attacked Königsberg in East Prussia, and thence it crept along the Baltic coast as far as Hamburg. In September it appeared in Sweden, and about the same date in Constantinople; and in October it had appeared at the mouths of the Danube. During the autumn, too, the disease prevailed in Asia Minor. In October an ill-furnished emigrant ship, sailing from Stettin, carried the infection with her. She was bound for America, and, the disease breaking out on the voyage, she had to put into Halifax, and introduced the contagion of cholera, of which some people died near Halifax. Two cases were imported in steamships into the port of Hartlepool from Hamburg; but being intercepted, though one of the cases terminated fatally, the disease did not spread. About this same period, too, cholera prevailed in Persia along the Euphrates and Tigris, and was introduced into Eastern Arabia; and cases occurred both at Mecca and Medina.

As to the origin of this very peculiar outbreak of cholera, Dr. Pelikan, the Director of the Medical Department of the Russian Government, as cited by Dr. Fauvel, holds that it was a recrudescence of the outbreak of 1865, which in 1866 sharply warned us of our liability to attack. This view, however, Mr. Radcliffe is not prepared to accept. As far as our knowledge goes, the former attack of cholera had entirely disappeared in Russia a year before this one broke

out. Further, ordinary experience shows that outbreaks in Russia are generally preceded by exacerbations of the disease in Northern Persia; and the outbreaks of 1830-31, 1847-48—probably also of 1852-56—seem to have passed from Persia into Russia following the ordinary lines of commerce. In all probability, therefore, the outbreak of 1869, corresponding as it did with an exacerbation of the disease in Northern Persia, followed the same rule, and broke out in Russia in a manner similar to previous attacks.

In Persia the disease has been more or less prevalent during the period of 1866-71, and some have come to the conclusion that it is beginning to be naturalised in Persia. But India, where the disease is undoubtedly endemic, had two great outbreaks within the period alluded to—one at the fair of Hurdwar, in 1867, whence it spread into Affghanistan with the pilgrims; and a somewhat similar eruption extended in 1869 as far as the Persian frontier. From Meshed, where it is known to have prevailed on both occasions, it might be easily distributed over Northern Persia, Meshed being a place of great resort both of merchants and pilgrims. In this way we can easily understand the possibility of the disease being renewed, though in the meantime it had never entirely disappeared, and so the source of the malady may still undoubtedly be referred to India.

The passage of cholera into Russia by way of Persia having been fairly made out on former occasions, it might be as well to search into the possibility of the same thing having occurred in 1869. At that time cholera was raging in Persia, and in that year it broke out in Russia, but at Kiev, far inland and remote from the Persian border. The course of cholera is always along well-defined routes of human transit—commercial or otherwise—and inquiry served to show that since 1864 the old trade routes had to a very considerable extent been disused, and a new one sprung up. Instead of going by way of Astrachan, much of the merchandise had been transmitted south of the Caucasus, between the Black Sea and the Caspian. This would readily account for cholera taking a new route from Persia to Europe, but why it should break out at Kiev does not at first sight appear. However, in that year two new lines of rail connecting Kiev with the Black Sea came into use, one of them going to Odessa, one to Taganrog on the Don. By either route communication between the centre of Russia and the Persian districts subject to cholera would be greatly facilitated. We are familiar with the fact that cholera may take great leaps, so to speak, between point and point, without, for the time, the mode of transmission being plain, though in others this is as unmistakable as the fact of the leap; and we are quite prepared to admit that such may have been the case in the outbreak of 1869. Meantime, certain links in the chain remain awanting, and no final verdict as to how these outbreaks began can as yet be given. Nevertheless, there can be but one opinion as to the immense value of Mr. Radcliffe's researches. It is well known that cholera follows the routes of human migration, and that it is most likely to follow the shortest routes. The starting up of a new trade route which is likely to bring a country like Persia—where for practical purposes cholera may be considered as naturalised, and where it is so much closer to Europe than is India—within easy reach, is fraught with danger to our Eastern neighbours. What steps should be taken to meet the danger have yet to be considered.

The opinions of Mr. Radcliffe, as given in this paper, are, we understand, calculated rather to elicit information than to lay down any absolute law. Either way it well deserves attention.

SLAUGHTER-HOUSES IN THE METROPOLIS.

In one of the clauses of the Metropolitan Building Act it is enacted that slaughter-houses in the metropolis should be closed after a certain date, now near at hand. The ground taken for this is that slaughtering cattle is an offensive or noxious business, and inimical to the public health. The Act could not come into operation at a more inopportune time than the present, if we were to admit its expediency at any time. But we contend that there are certain advantages from slaughtering cattle and sheep in the metropolis which far outweigh the evils resulting from the system. We are pleased, therefore, to see that Dr. Brewer has a Bill before the House which contains the following clause:—"From and after the *passing of this Act* the slaughtering of cattle or sheep by a butcher in his private slaughter-house, duly licensed, shall not be held to be the carrying on of an offensive or noxious business within the meaning of the said Act"—*i.e.*, the Metropolitan Building Act. In support of the view which we entertain on the subject we cannot do better than quote some passages from the "Quarterly Report of the Sickness and Mortality of St. George, Hanover-square, for the Quarter ending Christmas, 1858." This Report is so exhaustive, and treats the matter so ably, that we make no apologies for reproducing it here.

We may say that, though the Report was issued fourteen years back, the statements and arguments contained in it are even more applicable to the present time than then. The frightful price of meat, the diminution in the numbers of cattle and sheep in the country, make it of the utmost importance for us to economise in every way; and, above all, to prevent the waste arising from the slaughtering of cattle at a distance from the place where the meat is to be eaten. Of course it is to be understood that the metropolitan private slaughter-houses are to be duly licensed and strictly examined periodically. Under such supervision we have no hesitation in saying that the slaughtering of sheep may be carried on without the slightest injury to the public health, and that of cattle without any serious injury. We trust that Dr. Brewer will succeed in carrying his Bill. The following are the portions of the Report alluded to:—

"The question of the entire abolition of slaughter-houses from towns, and in particular from London, is one which we have carefully examined into; and as every circumstance connected with the supply and price of an article of prime necessity, like butchers' meat, is of importance to the whole community, we will venture to make a few remarks thereon.

"On abstract grounds, both of health and economy, no perishable matters ought to be brought into a town which will have to be carried out again as refuse, and be likely to be offensive or dangerous to health in the meanwhile. For thus the consumer has to pay double carriage, and is liable to nuisances into the bargain. As a rule, whatever is to be consumed should be brought into town; and all offal, even to pea-shells, be left behind.

"Vegetable refuse, as we know to our cost, creates trouble enough. Still more, then, does it seem unreasonable to bring a whole live animal into the heart of a town from a long distance, whereas only six-eighths of the animal are used as food, and the residue is a source of disgust and annoyance till it is carted away. Undoubtedly the consummation to be aimed at is, that animals should be killed in the country, fresh from pure air and wholesome food, without the loss of weight and fevered blood caused by driving, thirst, and ill-treatment on their way to a town slaughter-house. The eatable parts should be sent and the offal be left behind.

"But, on investigating the matter practically, we find that, under present arrangements, there is liable to be so much loss of country-killed meat from putrefaction in hot weather, and consequently such uncertainty in the supply, and such an increase of price, that we are compelled *for the present* to acquiesce in the expediency of maintaining some slaughter-houses in town.

"The question of the supply of meat is, as we have said, of such immense consequence in a social and political point of view, that we make no apology for introducing some of the scientific details involved therein; for it is only by public discussion that a better system can be brought about.

"After the death of an animal, whilst the body is cooling, there comes on the well known state of stiffness, technically called *rigor mortis*. This state consists in a partial solidification of matters in the flesh which were previously fluid, and is of the greatest value in hindering putrefaction, by prevent-

ing the admixture of the blood, which is alkaline, with the juice of the flesh, which is acid. This state is promoted by keeping the dead animal at perfect rest, and allowing it to become quite cold; and, so long as it lasts, putrefaction is absent.

"But, unfortunately, meat killed in the country in summer is packed whilst warm (and the natural heat is just that degree which is most conducive to putrefaction), and is kept in constant movement till it reaches the shop of the retail butcher. Hence it cannot *set*, and is often tainted before unpacked, or becomes so soon afterwards.

"Besides, there are many details in the killing and preparation of meat which ought to be attended to. For instance, if the animal be not entirely and quickly drained of blood; if it be allowed to rest on its side so that the blood may stagnate; if there be any defect in cleanliness; or even if the ripe, full-fed, juicy meat be too roughly handled, decomposition is apt to begin very early and suddenly—so that a parcel of meat which arrives fresh in appearance may become tainted in a few hours.

"Considering, then, what losses the town butchers would be exposed to from the careless manufacture of meat in the country; considering, moreover, that all the risk of loss from putrefaction at present belongs to the retail butcher, who purchases in the wholesale market, it cannot be wondered that the town butchers should desire to keep the management of the slaughtering in their own hands; and we believe that the summary abolition of town slaughter-houses might be attended with a most unpleasant rise in the price of meat.

"The real point to aim at, in order to procure the removal of these places from towns, is the introduction of a more careful system of killing, cooling, packing, and conveying meat from the country; and a proviso that, if the meat putrefies within a certain time after delivery in town, the loss shall fall on the vendor."

The *Times* of June 27 says that during the past fortnight "the enormous quantity of 35,799 lbs. of meat had been seized at the various City markets and slaughter-houses, and destroyed as unfit for human food. It consisted of 165 sheep, 58 pigs, 15 calves, 80 quarters and 466 joints of meat: 1072 lbs. were diseased, 33,972 lbs. putrid, and 755 lbs. had come from animals that had died from disease or accident." It will be noticed that nearly 34,000 lbs. out of the 35,799 lbs. were putrid—doubtless from the heat. Sanitarians must judge whether it be safer for a population to have empty bellies or to have their noses occasionally offended.

THE WEEK.

TOPICS OF THE DAY.

TIME does not allow us this week to go into the subject of the "Habitual Drunkards" Report; but we may say three words in commendation of the patience, the moderation, and the thoroughness of the investigation which led to it. The recommendations of the Committee offer to many a family the only means of safety from the ruin and disgrace liable to fall on them from the drinking habits of father or mother, whom neither religion, nor morality, nor self-respect, nor affection for children, nor the esteem of their neighbours suffices at present to restrain from this miserable bondage.

The Queen's University of Ireland has not yet given in its adhesion to the Conjoint Scheme, which has been accepted by the other Irish bodies. In Scotland, as our readers are aware, there is no Conjoint Scheme worthy of the name, and the University of Edinburgh will have nothing to say to any Conjoint Scheme at all. In England the University of London and the Apothecaries' Society, with the best wishes to join, are still without the legal power to do so. But, more fatal still, there is a growing conviction that due weight has not been given to the arguments which are against the reduction of the standard of Medical education to a minimum level; and many of the friends and *alumni* of the Royal College of Surgeons see with regret the dangers which beset the College—the danger of loss of *prestige*, for it will no longer be an independent body; the danger of loss of funds, for there can be no doubt, unless an equal and a perfect Conjoint Board can be established in each kingdom, numbers of English students will flock to Edinburgh, where an equally useful, and much cheaper, Surgical diploma can be obtained; and the danger that, in consequence, the museum, the library, and the teaching in the College will be starved. As far as at present appears, the partial Board will satisfy nobody, lower the standard of Medical education directly or indirectly, or both, and mine the foundations of the Royal College of Surgeons of England.

Dr. H. W. Acland, Regius Professor of Medicine, and Dr. G. Rolleston, Linacre Professor of Physiology, have been nominated to represent the University of Oxford on the Committee of Reference for the Medical Examining Board for England.

The University of Durham, at the meeting of Convocation, on June 25, elected Dr. Philipson, of Newcastle-on-Tyne, as the representative of Medicine, and Dr. Heath, of Newcastle-on-Tyne, as the representative of Surgery, on the Committee of Reference under the proposed scheme for a Conjoint Examination for England.

The minutes of a meeting of the Executive Committee of the General Council of Medical Education and Registration held on the 16th of last month contain an important report from Dr. Francis Hawkins, Registrar to the Council, on the measures which are being and have been adopted to insure a greater accuracy in the Register. It appears from this report that no less than 3500 letters of inquiry were despatched at the latter end of the last and the beginning of the present year, with the result of correcting 2000 addresses in the Register of the present year. Six hundred letters were returned marked "Dead" or "Not known" or "Gone away." In the latter cases "registered letters" have been sent, to which if no answer be returned within six months, the names will be erased from the Register. Further efforts of the same kind are to be made; but it is clear that the officials of the Council are not the only persons responsible for the correctness of the Register. Members of the Medical Profession who change their residences are bound, for the sake of the Profession and of the public, and especially for their own sakes, to notify the change to the Registrar. It is surprising, considering the interests at stake, that this is not more regularly done, especially as no additional fee is payable for making an alteration in an address. We are glad to see that the extra work which has been thrown on the Clerks to the Council—Messrs. Bell and Roope—in connexion with the revision of the Register has been acknowledged by a gratuity of £10 to each of these gentlemen. The sum might, we think, have been larger. By a resolution of the Executive Committee, the President, Dr. Acland, and Dr. Quain have been requested to wait upon the Government on the subject of obtaining premises for the Medical Council. We do not think that the Medical Council have any right to apply to the nation to find them a home, and we cannot say that the public services they have hitherto rendered entitle them to do so. If we mistake not, the Medical Council have already sufficient funds invested to enable them to buy or rent a suitable house in one of the less modern parts of London, wherein their business of registration might be conducted, and their meetings held.

Mr. Jonathan Hutchinson is delivering a course of lectures on "Skin Diseases" at the Hospital for Skin Diseases, Blackfriars. They are delivered on Tuesday and Friday at 3 p.m.

The answer of Mr. Cardwell to Lord Elcho and Colonel Lindsay the other night, on the subject of the recent regulations for Volunteer Medical Officers, pledges, we think, the Government to rescind the distasteful orders. Mr. Cardwell said distinctly "if the proposal were unacceptable it need not be insisted on." That it should ever have been proposed proves the two faults with which Lord Elcho charged the Government—"the pedantry of officialism and absolute ignorance of

human nature." We hear, however, that up to the time of our going to press no answer has been received from Mr. Cardwell in reference to the reception of the deputation of the Volunteer Medical Officers to the War Office.

Dr. Rayner, of Hanwell, has been appointed Lecturer on Psychological Medicine at the Middlesex Hospital.

Dr. Nunneley having resigned his Assistant-Physicianey at St. Mary's, we hear that among the candidates for the post are the following:—Drs. Gowers, Ralph, and Garrod, jun.

Dr. R. J. Lee has been appointed Assistant-Physician to the Hospital for Sick Children, Great Ormond-street.

We hear that Dr. Eustace Smith is a candidate for the post of Physician to the Eastern Hospital for Diseases of Children.

THE PUBLIC HEALTH BILL.

The eleventh clause of Mr. Stansfeld's Public Health Bill makes it imperative on urban sanitary authorities, within three months from the enforcement of the Act, to proceed to the election of a Medical Officer of Health. It has been conceived that this clause necessitates the termination of existing appointments, and will render it necessary for gentlemen who now hold office to be re-elected; and this objection has been circulated, amongst other arguments, against the Bill. We are authorised to state, however, that no such grievance is contemplated, or will be inflicted, or is possible to be inflicted by Mr. Stansfeld's Bill.

THE ROYAL COLLEGE OF PHYSICIANS.

It having been determined by the Royal College of Physicians that an abstract of the proceedings of the College shall be suspended in their Hall on the day after meeting, we shall from time to time furnish our readers with an account of such of the proceedings of the College as possess any interest for the Profession at large. An extraordinary meeting of the College took place on Wednesday, June 19. The principal business done was the election of Dr. C. J. B. Williams a Councillor of the College, in the place of Dr. Bence Jones, resigned. Apart from the high scientific and Professional standing of Dr. Williams, the active part which he took in obtaining a certain measure of reform in the mode of electing to the Fellowship will render his return to office a matter of congratulation amongst those who would wish to see the College placed upon a broader and fairer basis. Various communications were received; amongst others, a petition from the Medical Board of Trinidad, which, after stating that only those Practitioners can be admitted to the membership of the Trinidad Medical Board and licensed to practise in the island who hold a British qualification, or who are registered under the Medical Act (1858), prayed "that holders of foreign diplomas may be enabled to obtain the licence of the College after passing an examination in Medicine, to be conducted by means of sealed papers, under the supervision of the officers of the Medical Board, in a manner similar to that now pursued in regard to the Cambridge Local Examinations." This communication was referred to the Council, by whom we presume the legal power of the College to grant diplomas in the colonies will be ascertained. A letter from the Under-Secretary of State, conveying Lord Kimberley's thanks for the report of the College on the alleged "Spread of Leprosy by Contagion in the Island of Curiense"; a letter from the Committee of the Harvey Tercentenary Memorial, accepting the offer of the use of the College for the purpose of meeting; and a letter from the University of Bishop's College, Montreal, asking for recognition, were also read. The College, in view of the probable formation of a Conjoint Examining Board, postpone the question of recognising any more Medical Schools and Universities. The report of the Council calls attention to the increase of work thrown on the Registrar since his appointment to the office. The office of Bedell is vacant. Recommendation to the vacancy is in the hands of a committee, consisting of the President, Censors, Treasurer, and Registrar. Dr. Quain gave notice of his intention to move the following resolution at the next meeting of the College:—

"That it is desirable that the "recommendations" of the Conjoint Committee, laid on the table at the last Comitia, be submitted for consideration and approval by the College prior to their being transmitted to the Committee of Reference now about to be constituted."

THE HARVEIAN ORATION.

Dr. Arthur Farre delivered this annual address before a larger audience than usual, including many senior members of the Profession. The orator took for his subject the less known of the great works of Harvey—his seventy-two exercises on generation—and gave an interesting account of the circumstances of their publication. Harvey, tired of battling with prejudice and ignorance, reproached the friend who besought him to give up his manuscript, and remarked, with some bitterness, that it conduced far more to a man's comfort to keep his knowledge to himself than to make known truths which others are interested in suppressing; and, though he reluctantly gave his consent to the publication, it is clear that the papers were merely the materials for his intended great work, and not the work itself. Indeed, it appears that he never even revised the proofs. The opinions prevalent on the subject before Harvey, especially those of Aristotle and Galen, were glanced at, and Harvey's advocacy of "epigenesis" as against "metamorphosis" was explained. But the greater part of the lecture was occupied with a sketch of the additions made to our knowledge since Harvey's time, ending with a confession of our total inability to cope with the great problems of hereditary predisposition and atavism.

It is interesting to note that though the microscope was practically unknown, Harvey speaks, in discussing the then generally received doctrine of spontaneous generation, of ova so minute that they are borne through the air and evade our sight. And more distressing to Harvey than all the other losses which he had to endure was the destruction of his manuscript notes on the generation of insects, of which he was deprived in the civil war. Dr. Farre may be congratulated on having further illustrated the genius of Harvey by bringing to light a branch of his studies which previous orators had passed over.

ARMY SURGEONS IN PARLIAMENT.

We are not entirely without friends in Parliament, and we are glad to see a member of our own Profession—Mr. Mitchell Henry—does not forget his *quondam* brethren. He took occasion on Monday evening, when a vote for the militia was proposed, to express his opinion that it was very hard that the Militia Surgeons should have their emoluments so seriously interfered with as they were by the new regulations. Major Arbuthnot remarked on a vote for the Army Medical Department that a great deal of dissatisfaction existed among Army Surgeons, and he inquired of the Secretary for War whether he could give these gentlemen hope of a better state of things? Mr. Cardwell, in replying, said that no doubt after the Crimean war and the Indian mutiny the large additions made to the Army Medical Department much retarded promotion, but he might say the whole subject was under the consideration of the War Office.

ACTION FOR MALPRAXIS.

At the Winchcombe County Court, on the 12th inst., Mr. Samuel Smith, a Surgeon practising at Temple Guiting, was summoned by William Greening, a carrier, for injuries sustained by his wife through the defendant's Professional

negligence. The damages were laid at £50. The plaintiff's wife broke the fibula and dislocated her ankle by a fall on the slippery footway in the winter. Greening went to the defendant and told him of the accident. Instead of seeing her he sent word that she should have a poultice put on, and next day himself put on a pitch-plaster and bound the leg up in plain pieces of boards as splints. A fortnight later another Medical gentleman was called in, and it was then found that the dislocation had not been reduced, and that the broken bone had united so as to throw the foot out of its natural position. Medical evidence was called to prove that a Surgeon's first duty was the reduction of the dislocation, without which the proper union of the broken bone was impossible. The defendant, who exhibited considerable eccentricity in court, contended that he had treated the case properly; but a verdict was found for the plaintiff for the full amount claimed—£50.

ST. ANDREWS MEDICAL GRADUATES' ASSOCIATION.

The anniversary session and dinner of the Association will be held at Willis's Rooms on Saturday, July 6. Inspector-General Gordon, C.B., will deliver the presidential address at 5 p.m., and the dinner will be at 6.15 p.m. The time has been changed from December to July, to meet the convenience of country members.

SANITARY STATE OF CLERKENWELL.

Whilst some vestries are apathetic and others altogether negligent of their duties respecting sanitary matters, the Vestry of Clerkenwell seem to be in advance of their Officer of Health. At all events, at the meeting of that body held last week the following resolution was proposed and carried unanimously:—"That the sanitary state of the parish of Clerkenwell is in a most unsatisfactory condition, and that the vestry, therefore, call upon Dr. Griffith, the Medical Officer of this parish, to report fully thereon, and to suggest remedies for the same."

IN THE RIGHT WAY.

The law is strong enough to remove some of the means to aid quackery and imposture which are resorted to by the filthy advertisers of "cures" and medicine. At the Clerkenwell Police-court last week a man was charged by the Clerkenwell Vestry with posting indecent bills in Owen-street. Mr. Cooke fined the accused twenty-one shillings, or twenty-one days' imprisonment. He was sent to prison in default.

A NEW COTTAGE HOSPITAL.

A Hospital, to be called the North Cambridgeshire Cottage Hospital, is about to be erected at Wisbeach by Miss M. E. Watford Southwell, of Hyde-park. Miss Southwell will also endow the Hospital with £3000. This proposal has been supplemented by Mr. William Peckover, of Wisbeach, who has placed in the hands of trustees £2000, and Mr. Algernon Peckover, of the same town, £500, to permanently endow the Hospital.

TESTIMONIAL TO A SURGEON.

Dr. Patrick Smith, who has been appointed Resident Medical Officer of the Ararat Lunatic Asylum, has been presented, on leaving the Benevolent Asylum in Melbourne, with an address signed by 500 of the inmates. The address expressed in emphatic terms the gratitude of the subscribers for the kindness and attention that had been shown them by him, and the regret felt at his having relinquished his connexion with the institution.

A MEDICAL GAZETTE IN TURKISH.

The first number of a Medical journal in Turkish has just been published at Constantinople. Several Medical works have also been published there in the Turkish language.

THE MEDICINE OF THE FUTURE AT JAPAN.

The Government of Japan, with a sagacity and foresight which promise well for her future position in the community of nations, has determined to lay the foundation of a good scientific Medical school. For this purpose they have rightly chosen the City of Nyaka (or, as it is otherwise called, Kioto)—the residence of the Mikado—and there they will establish a complete Medical school and clinical Hospital, making use of existing temples and other public buildings till new buildings can be constructed. The model for the Hospital is that of Leipsic, on the separate pavilion principle. They directed their agent in Germany to select for them, as the head or director of the whole establishment, a German Physician, whose qualifications and duties they defined with praiseworthy minuteness. He must be well versed in the theory and practice of Medicine and the allied sciences, but above all must have seen plenty of practice, and not be a mere theorist or bookworm. He must understand English, and be able to lecture in that language, inasmuch as English interpreters are more easily procured than others. He must learn the Japanese language, and be prepared to teach in it, in due time. He must be well versed in chemistry and physical science, and be ready to give information when appealed to. He must be a man of good general education, good manners, and kind-hearted; must love children, and be just such a man as children would take to readily. He must not be pedantic, or like a drill-sergeant; and must be of temperate habits. He must be in good health, sound in wind and limb and eyesight; not finicking, or of artificial manners, but upright, straightforward, and spontaneously courteous; if he saw military Surgery in the late war, so much the better. Lastly, the Japanese instructed their agent to choose out of two candidates (all other things being equal) the *shorter*, because, as they are not a tall people, they would expect more sympathy from a man who was not tall himself. The duties of this Physician are sufficiently ample and responsible. He has to superintend the erection of the Hospital and school; to instruct a body of assistants who begin with some knowledge which they have acquired under the Dutch at Nagasaki, and of students who begin *de novo;* to teach science in general and Medicine in particular; to treat the sick; and to lay the foundation of the Medicine of the future at Japan. We must not fail to add that the arrangements proposed for remuneration are liberal and thoughtful in the highest degree, and do the Japanese Government infinite credit. The task of selection was entrusted to the Professors of the University of Leipsic, and their choice fell on Dr. Junker, whose late essay on tracheotomy is well known to our readers. He is an M.D. of Vienna, M.R.C.S. England, and was attached to the Samaritan Hospital, which he resigned on the outbreak of the late war, during which he served at Bazeilles, and was afterwards Surgeon-in-Chief of the German Hospital at Saärbrucken.

ANCIENT USE OF ANTISEPTICS IN EGYPTIAN SURGERY.

"Medicus," who sends us a short article on antiseptics, which will be found in the "Notes and Queries," tells us in a private note that the earliest instance he has met with of the use of an antiseptic as such in Surgery, is the case of St. Syntellectica, an Egyptian Christian lady of the second century, of whom an account is preserved in the "Lives of the Saints," and whose "day" is observed in January. This lady, whose life was devoted to the good of the poor, died at last of cancer of the face, which was attended with so odious a smell that she used to have the ulcer bathed with the *liquid which was employed to mummify dead bodies*, in order that those about her might not be injured.

FROM ABROAD.—ERECTILE TUMOUR OF THE INTESTINAL CANAL.—NEW FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

M. Laboulbène, one of the candidates at the Académie de

Médecine for the vacancy in the section of pathological anatomy, was fortunate enough, in the paper which it is customary to read announcing his pretensions, to be able to lay before the Academy, at its meeting on the 4th inst., an account of what he believed to be an entirely new fact in pathological anatomy—viz., the occurrence of erectile tumours in the alimentary canal. A patient, aged 74, having vomited blood and passed it by the anus, it was diagnosed, after a careful examination, that he was suffering from ulceration of the duodenum. He died in the course of some hours, presenting the signs of internal hæmorrhage. A most careful autopsy showed that almost all the organs were in a state of complete integrity, considering the age of the person. In the duodenum, however, a little lower than the orifices of the bile and pancreatic ducts, was found an oblong tumour the size of an almond, its projection being very visible when the blood which filled the duodenum had been washed out. Examined under water, the mucous membrane which covered the tumour presented a small, irregular ulceration, whence the recent discharge of blood had evidently issued. Two other blackish points seemed to indicate former orifices, which had undergone repair. On cutting through the tumour it was found to have invaded the entire substance of the mucous membrane, the muscular fibres and peritoneal coat being still recognisable. The mass consisted of capillary vessels of various sizes, which were dilated at several points, the dilatations being either uniform or only lateral. M. Laboulbène regards the tumour, in fact, as being precisely similar to erectile tumours met with on the surface of the body. Similar tumours, hitherto unobserved in this locality, may have given rise to fatal intestinal hæmorrhages, the causes of which have remained unknown.

The "French Association for the Advancement of Science" has just issued its programme, and we heartily wish it success. Its members are to consist of three classes, all, however, possessing equal rights. These are—1. Foundation members, who take 500-franc shares; 2. Perpetual members, compounding for 200 francs; and 3. Ordinary members, with an annual subscription of 20 francs. Already, besides a great number of annual subscribers, there are 158 foundation members, and these, together with 230 shares taken by the administration of large commercial companies, furnish a capital of 115,000 francs. The Administrative Council consists of Professor Claude Bernard, President; Professor Broca, MM. Delaunay, Quatrefages, and Wurtz, of the Institut; M. D'Eichthal, a former Deputy; Professor Cornil, of the Polytechnic School, Secretary; and M. G. Masson, publisher, Treasurer. The first meeting will be held at Bordeaux on September 5. In its address the Council states that its object is to follow in the steps of the successful British Association, seeking to encourage as far as possible both the advancement of theoretical science and the development of its practical applications. These aims it believes will be best brought about by interesting in scientific progress first the large towns of the kingdom, and then those of lesser importance; and annually, at one of these, "the first names in French science, without other aim than the love of science and of country, will expound recent discoveries and the advancement due to the industrial progress of theories; in a word, lighten up and support in all parts of the country scientific curiosity, the source of all labours and of all progress. The Association, entirely uninfluenced by the spirit of party, has no other object in view than that of contributing to the intellectual development of France. It solicits the co-operation of all those who love their country, and who believe that a nation should derive, from the assiduous investigation and diffusion of new truths, the moral energy which raises it, and the material prospects which assure its independence."

The programme contains no intimation of a desire for any foreign co-operation; and that there is some danger of the Association becoming too exclusive an engine for the advancement of "French science" may be feared from the grossly partial accounts furnished by the French *savants* of the share their country had taken in the recent progress of science in the Reports which they prepared to illustrate this on the occasion of the Exposition of 1867.

PARLIAMENTARY.—INFANT LIFE PROTECTION BILL—THE EMPLOYMENT OF CHILDREN IN COAL MINES—ARMY MEDICAL OFFICERS—MILITIA SURGEONS—THE NEW REGULATIONS FOR VOLUNTEER MEDICAL OFFICERS.

In the House of Lords, on Friday, June 21,

The following noble lords were named of the Select Committee on the Infant Life Protection Bill:—Earl of Derby, Earl of Shaftesbury, Earl of Morley, Lord Bishop of London, Lord Boyle, Lord Saltersford, Lord Wharncliffe, Lord Skelmersdale, Lord Portman, Lord Egerton, Lord Kesteven, and Lord Fitzwalter.

In the morning sitting of the House of Commons,

In Committee on the Coal Mines Regulation Bill, two attempts were made—one by Mr. Pease and the other by Mr. Kay-Shuttleworth—to extend the age below which boys shall not be employed underground. Mr. Pease moved that the age be extended from 10 to 12 years; Mr. Kay-Shuttleworth moved that in thin-seam mines the age be extended from 12 to 13 years. Both amendments were negatived.

On Monday, June 24,

In Committee of Supply on the Army Estimates, on the vote of £17,700 for the Medical Establishment, Mr. Cardwell stated, in reply to Major Arbuthnot, who asked if any steps were about to be taken to improve the flow of promotion among the Medical officers, that there had, no doubt, been a large addition made to the number of those officers during the Crimean war, which threatened to produce a retardation of promotion; but the subject was under consideration, with the view of seeing what could be done to remedy that state of things.

On the vote of £963,300 for pay and allowances to the militia, Mr. M. Henry complained that the new regulations dealt unfairly towards the Militia Surgeons. One of the grievances of those regulations was that they deprived them of the principal source of their income—the fees for the examination of recruits.

On the vote of £473,200 on account of the volunteers, Colonel C. Lindsay strongly objected to the regulations as to Medical officers, men of high Professional attainments, who, with few exceptions, held diplomas both in Medicine and Surgery. They were to be subjected to an examination highly unpalatable and derogatory to their Professional status. Clause 43, moreover, provided that Surgeons of corps and administrative regiments should attend on the adjutants and drill-sergeants, and their wives and young children, receiving 2d. per week for each person. Thus, for 8s. 8d. per annum they would have to attend an unlimited number of persons, scattered, perhaps, in the case of an administrative battalion, over thirty or forty miles. If their assistants did the work, it came to the same thing. Who was to pay their travelling expenses? A commanding officer who had written to him mentioned a case in which the adjutant lived at head-quarters, while the Surgeon was twenty miles off. It would be much better to give these officers the 2d. a week, and let them procure Medical attendance themselves. He was aware that this regulation had been framed on the rule as to Militia Surgeons, but the staff and adjutants of a militia regiment were a large body of men, and were all at head-quarters. Every time Volunteer Surgeons attended they did so at considerable loss, without the slightest equivalent, but the right hon. gentleman could not expect them to continue their gratuitous services if they were treated in the way proposed. He had dwelt at some length on this point, because it dealt with a class for whom we ought to have the highest respect, and whom we could not afford to lose.

Lord Elcho said this Government had two faults—the pedantry of officialism and absolute ignorance of human nature. The latter was exemplified by the Prime Minister early in the session, when he insisted upon his construction of the Washington Treaty on grammatical grounds. The same ignorance of human nature had been exhibited in this rule relating to the Surgeons of the volunteer corps. Men of great professional distinction volunteered for the service—men who had taken Medical degrees at the best universities. Was it to be supposed they would submit to an examination at the hands of Army Surgeons, whom they regarded as inferior in Professional standing?

Mr. Cardwell, in the course of his reply on the subject of the

vote for the volunteer force, said the main point appeared to be the mode of treating the Medical men. At present the Volunteer Medical Officers earned a capitation grant for their corps, but without any conditions of service. Now, two proposals had been made, neither of which, however, was intended to be injurious to the Medical Officers, and he did not know that either of them would be insisted upon if they should prove unacceptable to the Medical Profession or to the volunteers generally. One of them was that Medical Officers should be experienced in those parts of Medical science which had special reference to military duties. If a Medical Officer qualified in the manner specified in the regulations, he would be allowed to earn £2 10s. for his corps just like any other officer. It was thought that the permanent staff of the volunteers ought to be placed on the same level with that of the militia, and therefore it was proposed to allow the Medical Officers of volunteer regiments to attend them on the same terms as the Medical Officers attended the permanent staff of the militia; but if this proposal were unacceptable it need not be insisted upon. He supposed, however, his hon. friend wished that the attendance of the Medical Officer should be secured to the permanent staff.

PROFESSOR HUMPHRY ON HUMAN MYOLOGY.

Professor Humphry gave his first lecture on "Human Myology" at the College of Surgeons on Monday, the 17th inst. After paying a tribute to the College for the good work done by it in promoting the science of Anatomy and Physiology, and so elevating the character and social status of the Profession, he stated that it was his intention to consider the muscular system of man morphologically and teleologically. Morphology and teleology are always associated in nature, and should therefore be associated in our study of nature. Every muscle, and also every fibre of muscle, is framed with relation to the work it has to do, and to the manner in which it may do that work best. The performance of work—*i.e.*, function—is the stimulus to the maintenance of its nutrition, but is not the stimulus to its formation. Each fibre is formed of a length proportionate to the range of action required. There are various provisions for lessening the range of action, and so for shortening the muscular fibres. Such are the obliquity of the direction of the fibres, their crossing (as in the case of the pectoralis major), and the passage of tendons under loops or bands (as at the ankle), and the insertion of the tendons near the centre of motion. These, and other like provisions, diminish the operative force of the muscles concerned; but they compensate for this, inasmuch as they increase the motive effect produced by a given amount of contraction of the individual fibres. Hence the fibres can be shorter, and admit of being massed together in convenient positions, and of being so arranged that a great number can, through the medium of tendons, be brought to bear upon a given point. The osseo-muscular system of the trunk is composed of a series of alternating, transverse, skeletal and muscular planes. The skeletal parts may be membranous, cartilaginous, or osseous. This is best illustrated in the fish. In higher animals and in man the regularity of the alternation is much broken—in some instances by the obliteration of the skeletal intermuscular septa consequent on the extension or anchylosis of the muscular fibres through them; and in other instances by the prolongation and varying direction of the skeletal septa, which thus come to form the tendons. It was thus shown that the successive tendons of the dorsal muscles are modified intermuscular septa, and that they so correspond homologically with the transverse or oblique septa of the dorsal division of the lateral muscle of the fish.(a) The dorsal muscles were described as divisible into three groups—first, a superficial oblique group passing from the spines towards the transverse processes, and including the splenii and the obliquus capitis inferior; second, a middle (rectus) group, including the erectores spinæ, the interspinales, and intertransversales, etc.; thirdly, a deep oblique group passing from the transverse processes towards the spines, and including the complexus and biventer, the semispinales, multifidus spinæ, and rotatores. In considering the ventral part of the lateral muscle of the trunk, the Professor showed how, by alteration of the direction of the fibres and the loss of the transverse septa, the oblique and transverse muscles of the abdomen are modified from the primitive simple pattern which is still to a great extent preserved in the rectus muscle. He entered into the purposes served by the septa in that muscle, as well as into the cause of their comparative absence below the umbilicus, and gave suggestions to account for the disposition of the oblique and transversalis tendons at the lower part of the abdomen being different from that higher up. The series of ventral muscles admit of being divided into three strata, as shown in the accompanying table:—

Scheme of Ventral Muscles.

Superficial Stratum.

Gracilis	External oblique	Pectoralis	Sterno cleido mastoid	Digastric ant. Genio-hyoid
Sartorius Tensor vaginæ femoris	External oblique		Deltoid	
Gluteus max.		Latissimus dorsi		Trapezius

Middle Stratum.

Compressor urethræ Ischio-cavernosus Transv. perinei Sphincter ani int.	Internal oblique Rectus and Pyramidalis			Sterno-hyoid, Stylo-hyoid Sterno-thyroid, Digastric post. Omo-hyoid, Lingual Thyro-hyoid, Pharyngeal
	Internal oblique	Intercostals ext.	Serratus	Subclavius Levator scapulæ
Muscles from Pelvis to Femur	Quadratus lumborum	Intercostals ext.		Scaleni

Deep Stratum.

Levator ani	Transversalis	Diaphragm	Intercostals int. Triangularis sterni	
Levator ani	Transversalis Psoas and Crura of	Diaphragm	Intercostals int.	Longus colli Rectus capitis ant. major

In speaking of the intercostals, the Professor showed, by diagramatic expositions of their arrangement with reference to the ribs in different positions, that both the external and internal fibres are in their whole extent agents in inspiration, and that there is not, as has been supposed by many observers, an antagonism in the action of the different parts of the internal intercostal series. He gave also mechanical reasons for

(a) For the further elucidation of these views the Professor referred to papers recently published by him in the *Journal of Anatomy* and to his "Observations on Myology."

the absence of the external intercostals near the sternum, and of the internal intercostals near the spine. Speaking of the cervical muscles, he associated the form of the digastric muscle with its derivation from two strata of the ventral part of the lateral muscle—the anterior belly belonging to a superficial stratum, and the posterior belly being derived from a deep stratum; whereas the connecting tendon is a remnant of one of the connecting transverse septa of the lateral muscle—of that septum in which the hyoid bone is formed.

VOLUNTEER SURGEONS AND THE NEW WAR-OFFICE REGULATIONS.

(*From a Correspondent.*)

It was natural enough that the Volunteer Medical Officers who met on the 20th inst. at the Grosvenor Hotel, London, should express their indignation at the "twopence-a-week" clause of the regulations just issued. To attend a number of persons, varying from about ten to twenty, on these terms, when the persons live at considerable distances apart, would probably be a serious loss, and could not be remunerative—to say nothing of the supply of medicines, which many of the Medical officers would be prevented from undertaking on any terms. But the wonderful twopence is easily explained: it is the sum paid according to existing regulations to civil Surgeons who attend the staff of militia regiments, or other bodies of troops for whom no regular Medical officer is provided. This, which amounts to double the ordinary rate of clubs, has been accepted as fair average remuneration when given for a large number of healthy persons residing within a narrow compass; it is the application of the same scale to a totally different case that makes the injustice of the present proposal, against which Mr. Spencer Smith, the chairman, Mr. Cock, Dr. Squire, Dr. Carr, Mr. Cordy Burrows, and other speakers inveighed. The impracticability of the scheme is so patent on the face of it that discussion is scarcely needed. The question must be decided by the withdrawal either of the clause or of the present staff of Volunteer Medical Officers; and as the difficulty probably arose from nothing more than an office blunder, there is little doubt that the former alternative will be chosen.

The meeting objected to the proposal to make examinations in field Hospital and ambulance duties retrospective. It is probable, however, that the increased confidence placed by the volunteers in Medical officers who had made themselves acquainted with these indispensable matters would compensate the latter for the trouble which they underwent in doing so. This, however, is not a pressing question; but it will be well that the Volunteer Medical Officers should show—by joining the deputation which Dr. John Murray, the Honorary Secretary, was instructed to ask Mr. Cardwell to receive—that they object to become paid servants of the State at the rate of twopence a week.

FOREIGN AND COLONIAL CORRESPONDENCE.

FRANCE.

Paris, June 18.

Infant Mortality—Proposed Prohibition of Certain Work to Women and Children—New Hospitals—Thoracentesis—Hospital Cases: Reduction of Dislocated Hip.

Infant mortality continues to be very high in France, and at a meeting of the Society for the Protection of Infants I learned that one *nourrice* (which means dry or wet nurse) alone lost sixty-four nurslings within a few years. If this is not a "massacre of the innocents," I really do not know what it might be called; and the authorities, justly alarmed at this, have caused an investigation into the matter. You are aware that the Imperial Government and the Academy of Medicine had already taken the subject into consideration, and although the Republic is the ruling power in France, infant mortality does not seem to decrease; but to the praise of the National Assembly it must be said that legislative measures are being taken, not only for the better protection of infant life, but of children of a more advanced age. A project of law is under consideration for the regulation of the working hours of children, and also of women in the different manufactories, by which no child is allowed to enter one of these before the age of 10, and until the age of 13 no child is to work more than six hours a day, and he cannot be called upon to do any night-work until past 16 years. Girls and women of any age are strictly forbidden to work at night, and are not on any account to be admitted into the mines or quarries, from which children under 13 are also excluded. Moreover, up to that age children are expected to attend school at certain hours of the day. Boys under 16, and girls and women of all ages, are not to work on festival days, Sundays being included; but as regards Sunday I would take the liberty of proposing the following amendment—"That men, women, and children of all ages be allowed to rest on that day."

Notwithstanding all that has been said against Hospitals, and against the new Hôtel-Dieu in particular, four millions of francs have been voted for its completion and for the construction of a Hospital in the twentieth arrondissement, in the Ménilmontant quarter, which is situated near the eastern boundary of Paris. It is high time that something should be done in that direction, for the number of Hospitals at present in Paris is far from being sufficient for the requirements of the population—indeed, it has long been in contemplation that each arrondissement or district should have its own Hospital, church, theatre, and market, with a multiplicity of schools, which in every point of view would be a most desirable arrangement. But one of the most sanitary measures that has been decided upon is the creation of new cemeteries outside the fortifications, the importance of which cannot be overestimated.

You will have seen by the Medical journals that thoracentesis is *à la mode* in the Paris Hospitals, and the all-absorbing topic at the Academy of Medicine; but I have noticed that in the discussions that have taken place on this subject the expediency or results of the operation are set aside for personal consideration on the part of the speakers; and as each man has his own hobby, one may guess beforehand what his arguments and conclusions will be. For instance, Chassaignac prefers drainage, and Jules Guérin the subcutaneous method, to simple thoracentesis in empyema, and both can boast of about an equal number of champions on each side. But whatever may be said of this operation, it is impossible to refer to it without calling to mind that it is to the illustrious Trousseau that is due the honour of having popularised it, as it were, in Medicine; and M. Béhier, one of his disciples, has zealously perpetuated the practice.

In my walks through the Hospitals, I have, since my last, seen much to write about. Your readers will remember the case of corrosive poisoning I communicated in my letter which appeared in the *Medical Times and Gazette* of May 4. I have now to announce the death of the patient, which took place eight or ten days ago, in a state of extreme emaciation. He had not been able to take any solid food, and even liquids were with difficulty swallowed and retained. The fatal termination was immediately preceded by coma and a low muttering delirium. At the autopsy the œsophagus and stomach were found highly injected, and the former was studded with superficial ulcerations resembling those in the colon in dysentery; some of them had been cicatrised, and a stricture was found at each extremity of the tube. That at the pharyngeal end was overcome by catheterisation, but the cardiac extremity was so contracted as scarcely to admit of a probe. The stomach was the seat of an extensive but superficial ulcer, which occupied its great curve, and radiated towards its lesser curve and cardiac extremity. Nothing worthy of note was observed in the other organs, except that the vessels and substance of the brain were highly injected.

In the letter above referred to I made mention of a severe remedy which was employed by M. Béhier in a case of arthritic affection of the knee, but I have found its match at the Hôpital St. Louis, where M. Tillaux, one of the Surgeons, punched several holes with heated irons in an indolent bubo (a simple adenoid tumour of a strumous nature), which he said would never have suppurated nor been dissolved by other milder means. In my opinion, however, it is unnecessary to resort to such a painful remedy; I should give the preference to extirpation of the gland.

On the same day M. Tillaux reduced a recent dislocation of the hip-joint in a man of about 50, which was caused by a weight falling on him whilst in a position between kneeling and sitting, and which, M. Tillaux observed, would probably have broken the spine if the head of the thigh-bone had not given way. He said the dislocation was a modification of the fourth variety—that is to say, between the symphysis pubis and obturator foramen. The patient was placed under chloro-

form, and when the anæsthetic effect had reached the fourth degree he reduced the dislocation without any difficulty whatever, by simply flexing the thigh on the pelvis; then, with a combined movement of abduction and rotation, the bone slipped into its place. In his lesson on the subject, and with particular reference to the employment of chloroform in the reduction of dislocations, I was glad to find that he dwelt upon the necessity of pushing the anæsthetic to its fourth degree, when the muscles are perfectly relaxed, as French Surgeons are in general very timid in its administration, and I have seen cases where the Surgeon had attempted reduction before going so far, and had to give it up, owing to the violent involuntary resistance of the patients. Even as regards other Surgical operations I have seen the same mistake made, and, instead of waiting until the desirable effect is produced, patients have been cut and branded, thus depriving them of the benedictive influence of this valuable agent.

Owing to the death of Michel Lévy, Professor Laveran has been appointed Director of the Army Medical School of Val-de-Grâce. M. Laveran is very popular, and his administrative qualities well suit him for the exercise of his new functions.

M. Ulysse Trélat has been appointed Professor of Surgery at the Faculty of Medicine in the room of Professor Verneuil.

The following is the order in which the names of the candidates are inscribed for the vacancy caused by the death of Professor Langier at the Academy of Sciences:—MM. Sédillot, Gosselin, Richet, Jules Guérin, Hnguier, Piorry, Sappey, Marey, Vulpian—all well-known names; but disaffection prevails, owing to the candidature of those who are not Surgeons in the strict sense of the word, as the vacancy exists in that branch.

After the almost constant fall of rain we have had for nearly a month, and the consequent diminution of the temperature, the weather has become suddenly warm, and the thermometer, which only three days ago ranged between 55° and 60° Fahrenheit, now marks 75° in the shade.

The mortuary return exhibits a great fall in the number of deaths for the week ending June 14, but phthisis pulmonalis continues its ravages, the deaths from that affection alone amounting to 122, or about one-sixth of the general total, which is put down at 678.

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL OFFICERS AND OFFICERS OF HEALTH.

Letter from Mr. J. Wickham Barnes.

[To the Editor of the Medical Times and Gazette.]

Sir,—Since my letter of last week I have been reminded that one of the two propositions—namely, that Poor-law Medical Officers should be deputy officers under a local Medical Officer of Health—is only the idea of a certain few, in opposition to Mr. Stansfeld's carefully studied Bill, which will become law unless the Poor-law Medical Officers themselves follow the advice of others instead of consulting their own interests, and oppose it by their petitions.

Knowing from experience what Poor-law Medical practice is, both in town and country, I most strongly urge all Poor-law Medical Officers to fight well for the position which is now offered them, and which they may not get the chance of again. To my mind, this 13th clause seems to have been one of the chief objects our Association has been striving to obtain, as it will of necessity place the Poor-law Medical Officer in his proper position in the social scale, besides adding to his income, and he will treat with the contempt they deserve all such insinuations that duty will be sacrificed to interest. Trusting that all Poor-law Medical Officers will continue to respond to my letter of last week,

I am, &c., J. Wickham Barnes.

[To the Editor of the Medical Times and Gazette.]

Sir,—The differences of opinion which have arisen on this question ought to be not difficult of solution. It is agreed on all hands that the Poor-law Medical Officers ought to be the Medical Officers of Health of the first instance. They ought to report the existence of any nuisances they may observe, and any disease of the epidemic order; in fact, who but they can do it in scattered country districts?

The twaddle that is uttered about the "fear and unwillingness" of country Medical men to inform against nuisances on the territory of their squire or farmer patients is most ridiculous and degrading. A Medical man afraid to do his duty? Turn him out! The duty in this case is to make a true report on those prevalent causes of disease which rob the national purse and murder the poor and their children. We have gone on far too long on the "make-it-pleasant" system, and the sooner a change comes the better.

One evil which I hope will be avoided is the employing Medical men to "take proceedings." This he should never do. It is a lawyer's work, and the Doctor should be a witness, not the complainant.

In cities many complex questions will arise, and then scope will be found for the consulting chemist or such a Physician as Dr. Gairdner, or both. But he ought to have full, early, and punctual information from the Medical attendants of the poor.

London, June 24. I am, &c., Anti-Muddle.

*** See Professor Acland's sentiments: "Sanitary Organisation," p. 748.

Letter from Dr. Henry W. Rumsey.

[To the Editor of the Medical Times and Gazette.]

Sir,—The alternative placed before Poor-law Medical Officers by Mr. Wickham Barnes in your last number is—doubtless unintentionally on his part—a singular perversion of the real points at issue in this controversy. He, being a Practitioner in the metropolis, which is hardly touched by this Bill, may be excused for ignorance of the question as regards the remaining six-sevenths of the population of England to which the Bill does apply. I beg leave, therefore, to ask every Poor-law Medical Officer in the provinces to send me, on a post-card, an answer to the following inquiry, which states correctly the rival propositions; and I promise every one who favours me with a reply that it shall be made good use of for the improvement of his position:—

"Which of these two alternatives do you prefer?

"(*a*) In Urban Districts, the being set aside by the single Officer of Health, who is (by Clause 11) to be appointed by each urban authority, and who will generally be your rival in practice; and, in Rural Districts, being appointed sole Health Officers under the Board of Guardians, and occasionally inspected by an itinerant official from the Local Government Board; or

"(*b*) The being constituted, in town and country alike, Deputy Officers of Health, under (*not* 'one of your local medical men,' but) a County or Principal Officer of Health, debarred from private practice, who would be ready at all times to support you and to relieve you from the disagreeable duty of initiating proceedings against nuisances created by your private patients, and whose post, on a vacancy, would be filled by one selected for good service from your own ranks."

Mr. Wickham Barnes has secured an advantage by having been the first to put the question. But let me caution your readers against any conclusion which may be drawn from false premisses.

I am, &c.,

Cheltenham, June 22. Henry W. Rumsey.

OBITUARY.

ROBERT WIGHT, M.D., F.R.S., etc.,

Was born at Milton Duncra Hill, East Lothian, on July 6, 1796, and died on the 26th ult. at Grazeley Lodge, Reading. He took his degree at Edinburgh in 1816, and shortly afterwards entered the East India Company's service, first as Assistant-Surgeon, and then as full Surgeon in the 33rd Regiment. He paid great attention during his long residence in India to Indian plants. In 1834, whilst in Edinburgh on leave, he published, jointly with Professor Arnott, of Glasgow, the first and only volume of "Prodromus Floræ Peninsulæ Orientalis"—a work of great value on Indian botany—but it was never completed, owing to Dr. Wight's return to India. After his return to Madras he published "Illustrations of Indian Botany," and subsequently a larger work, entitled "Icones Plantarum Indiæ Orientalis," illustrated with 2101 plates; then a third illustrated work, on the flora of the Neilgherries, entitled "Spicilegium Neilgherrense." He was also the author of many memoirs published in various botanical journals. Dr. Wight bestowed considerable attention to the development of Indian products and to the introduction of tea, cinchona, and cotton. For several years he was superintendent of the cotton plantations at Coimbator, and published several papers

on cotton. In 1853 Dr. Wight left India, and since that time has been employed at the Indian flora, and, by his great experience, largely assisting others engaged in the same field. Dr. Wight leaves a widow, four sons, and a daughter. He was one of the ablest Indian botanists, and may be honourably associated with Roxburgh, Griffith, Royle, and others.

THOMAS CAVERHILL JERDON, M.D.

Death has robbed us of another of the able band of Indian naturalists. Dr. Thomas Caverhill Jerdon died on Wednesday morning, June 12, after a long and weary illness. Having passed many years of Indian service with unbroken health, he contracted fever when at Gowhatty, in the Assam valley, in the spring of 1869, where he had been travelling to prosecute further researches into the fauna of that part of India. Diarrhœa and dysentery supervened, which, spite of his naturally strong constitution, he never shook off. Thus he overtaxed his strength by a still longer residence in India, and has really fallen in the pursuit of that early love of natural history which never died out even to the very last. He was the son of Archibald Jerdon, Esq., of Bonjedward, in the county of Roxburgh, Scotland, and was born in 1811, being thus only 60 at the time of his death. A student of the University of Edinburgh, which has produced such a long roll of distinguished naturalists, he received an appointment as Assistant-Surgeon in the service of the Hon. East India Company, in 1835, and proceeded to Madras. He early evinced a love of natural history, and commenced collecting the fauna of the above Presidency. Ornithology became his favourite study, and the first fruits of his labour were the publication in 1844 of the "Illustrations of Indian Ornithology," the plates turned out under his superintendence, the moiety by native artists. His name will be best known to the Indian collector and student of natural history associated with his work the "Birds of India," published, in 1862, under the auspices of the Government. No work has done more to familiarise the avi-fauna of India, or has led more students into the same field than this. His close study and long observation of the habits of the many species described are to be seen on every page. He possessed a wonderful knowledge "by eye mark" of every bird, and aided his memory by making rough tinted drawings of every species that came in his way or that he could obtain a drawing of. Of such sketches he had accumulated a very large and valuable series. It was a real pleasure to witness (as the writer often has) his ready discrimination of some dull, indistinctly marked form put into his hand, and hear the points detailed wherein it might differ from some other allied form. His other work, "The Mammals of India," was published in 1867, and it had been his design to bring out like text-books on the reptiles and fishes, and a great mass of materials had been collected. Had he been longer spared, a second edition of the "Birds of India," greatly enlarged, and with the addition of the forms of the eastern districts and Burmah would have been brought out. It is to be hoped that some competent naturalist will carry out Dr. Jerdon's intention. A supplementary list of Indian birds, lately published in the *Ibis*, and not completed, employed his time up to within a few days of his decease. Many of his other writings are to be found in various scientific journals. He was in his younger days a keen sportsman, and shooting, fishing, and hawking were his delight. He was a good specimen of the hard, wiry Scot, and his native country may be proud of her border son. His indefatigable energy was untiring, and few men take out to the full and employ the waking hours of life as did Surgeon-Major Jerdon. Of active service in the field he had not a very extended share. With the 2nd Madras Light Cavalry he took part in good and arduous duty in Central India during the days of the Indian mutiny. That he was not the man to spare himself on such service the writer can well imagine, and he and many other old friends who knew him well will long deplore his loss. In a scientific point of view it is also great.

WILLIAM CARLESS, M.B.

On Monday last, while out visiting some of his patients, on his way home he stopped at a chemist's shop, where his driver alighted to give directions with regard to some medicines, when the horse, somehow taking fright, darted off, and Dr. Carless, failing to arrest its progress, was hurled out with great violence, his head coming in contact with a stone. The unfortunate gentleman never again spoke, and shortly afterwards breathed his last. He was the son of Dr. Carless, of Stroude, finished his Medical studies in Aberdeen, and graduated only in May last, after which he proceeded to Long Melford, Suffolk, as assistant to a Medical Practitioner there. Dr. Carless, during his last year of study at the University, was appointed (an appointment never before given to an unqualified man) Resident House-Physician at Elmhill Lunatic Asylum, and while there, as also throughout his whole Medical course, gained many friends, not among the members of the Profession and the students with whom he was coming in contact only, but among the citizens of Aberdeen, many of whom feel his death like the removal of a relative, and sincerely mourn his early and untimely fate, taking place, as it does, in the prime of life, and at the commencement of the practice of that Profession to which he had devoted himself.

ADONIAH WALLACK, M.R.C.S.,

Died at Wringford, Rame, near Plymouth, on June 5. Mr. Wallack commenced his studies at the Aldersgate School of Medicine, where he obtained the gold and silver medals for his chemical acquirements; the former given and awarded by the late eminent Dr. Pereira. After passing his examination as Surgeon and Apothecary, he left England for New South Wales, and settled at Singleton, which place he left in 1848, and joined in an expedition undertaken for the relief of the explorers of "the Cape York Peninsula in tropical Australia," and, with two others, was successful, at great personal risk, in rescuing the survivors; the gallant leader, Mr. E. B. Kennedy, and others of the exploring party, having been speared by the aborigines, or starved to death. The account of the whole transaction was published at the time in a pamphlet printed in Sydney, and forms an interesting appendix to the second volume of a "Narrative of the Voyage of H.M.S. *Rattlesnake*, commanded by the late Captain Owen Stanley," by John Macgillivray, Esq., F.R.G.S., naturalist of that expedition, published in 1852 by T. and W. Boone, New Bond-street, under the sanction of the Lords Commissioners of the Admiralty. Mr. Wallack subsequently travelled much in California, Canada, etc., and wrote a description of the former country soon after the first gold discoveries, which was partly published in the Sydney newspapers. After an absence of between twenty and thirty years in the colonies, where, as a Medical man, and from his kindliness of disposition, he was much appreciated, he retired from the active exercise of his Profession, and spent his latter days in rural occupations on a small family estate in his native county.

NEW INVENTIONS.

DOMESTIC HYDRAULICS.

A patent has been taken out by Mr. Thomas Morris, of Carlton-chambers, architect, for improved apparatus for the water service of buildings. By a concentrated system of pipes, with close cisterns, valves, and other contrivances, he proposes to effect saving in plumbing, and prevent the waste, exposure, and contamination of water.

Instead of making it the sole duty of the main pipe to feed a cistern with water, and employing other pipes for drawing it out again, one pipe is made to answer for the up and down service. It is qualified for this twofold use by a valve at the base that keeps it always charged, whether the supply be constant or intermittent. From this main, branch pipes are carried to the several points at which water is to be drawn, and are there terminated with suitable fittings. At the summit is a valve that admits air when there is not a perfect complement of water; but as the latter rises it drives the air out, and closes the valve without any waste whatever, though the contents of the pipe continue under atmospheric pressure. By this concentration the length of pipe in a building will be much reduced.

Another reform relates to cisterns. Nothing could well be more obnoxious than receptacles of the old box shape. A considerable part of every such cistern is sacrificed in giving requisite scope to the floating ball—an instrument, by the way, that now and then, with suicidal persistency, sticks vertically down, and so, as the plumbers say, gets "drowned." Frequently such a cistern is without a lid, and various abominations soon accumulate; or, if there be a lid, the consequences may be yet worse, for in order to guard against the known irregularities of the ball, there always stands close by it the capacious waste-pipe for carrying the overflow to the drains. This forms a direct channel for the sewer gases to rise up into the cistern to be there absorbed by the water. This mode of poison is,

perhaps, quite as prolific of disease as the direct emanations of the soil-pipe, and will be entirely got rid of under Mr. Morris's patent. He would prefer to dispense with cisterns *in toto*, but they will be kept in use by two causes. Where the quantity for the day is delivered in a single hour, the cistern must hold the day's supply, and the feed or main pipe must be of great diameter; but where the supply is constant, a smaller cistern will suffice, as the object is merely to accommodate the difference of velocity of the influx and that required for the drawing off. The main pipe may also be proportionately smaller.

It is not to be assumed that because the supply of water to the metropolis is to be constant it must necessarily be more copious. There will be a precise equation of velocity and time. If the daily consumption of a house amounts to 180 gallons, that quantity will be supplied at the rate of about a pint a minute. A cistern, therefore, is necessary to allow that to be drawn rapidly off that comes so slowly in. All the vices of the old cistern are, however, effectually cured, and it becomes, in fact, a mere enlargement of the pipe. The actual pressure on the main will be just as hitherto, and beyond the consumer's control; but the cistern, though filled to repletion and subject to the pressure of some surcharge, is to be under regulation, and excessive stress upon the vessel is to be avoided. Taking into account the general circumstances, it is seen that the cistern must be most effective when placed in the upper part of an edifice. The details, however, upon which the patentee is still engaged will embrace some novelties, and, whether much saving in expense be effected or not, we are prepared to welcome any plan by which the water we drink shall be presented to us pure and unpolluted.

MEDICAL NEWS.

University of Dublin.—At the Summer Commencements, held in the Examination Hall, Trinity College, on Wednesday, June 26, the following degrees and licences were conferred by Sir Joseph Napier, Bart., LL.D., Vice-Chancellor of the University:—

Doctor in utroque Jure, honoris causâ.

Armstrong, Alexander (eques ordinis honoratissimi de Balneo).

Baccalaurei in Medicinâ.

Allen, Jacobus Henricus.
Archer, Robertus S.
Chartres, Johannes.
Fleetwood, Thomas Falkiner.
Goode, Georgius.
Grandison, Alfredus.
Gubbins, Gulielmus Lancelot.
Hamilton, Jacobus Carolus.
Hingston, Gulielmus Freke.
Kerr, Elias Gulielmus.
Mackesy, Gulielmus Ludovicus.
McLaughlin, Fredericus Peard.
McMunn, Carolus Alexander.
Marsden, Carolus Georgius Wilson.
Moriarty, Matthæus Dionysius.
O'Meara, Thomas Patricius.
Pope, Fredericus Alexander.
Purefoy, Ricardus Dancer.
Smyly, Gulielmus Josias.
Wade, Arthur Law.

Magistri in Chirurgiâ.

Archer, Robertus S.
Ball, Carolus Bent.
Hingston, Gulielmus Freke.
McLaughlin, Fredericus Peard.

Doctores in Medicinâ.

Butler, Franciscus Theobaldus.
Cooke, Edvardus Jones.
Cranny, Johannes Josephus.

Licentiatus in Medicinâ.

Kelly, Thomas Josephus.

Sir Alexander Armstrong, K.C.B., Director-General Navy Medical Department, was much cheered on receiving the honorary degree of LL.D.

Royal College of Surgeons.—Amongst the many valuable and important changes in the mode of conducting the examinations for the various diplomas and licence of this institution is that which was inaugurated on the 21st and 25th inst., for the diploma in Dental Surgery, when the candidates, in addition to the oral examination, were subjected to one in writing, having the following questions on Anatomy and Physiology, and on Pathology and Surgery, to answer from two to four o'clock, viz.:—Anatomy and Physiology: 1. Describe the process of mastication, enumerate the muscles which are concerned in it, and state their respective functions. 2. Describe the structure of the salivary glands, their situation and relative size, the course and terminations of their ducts, and the influence of the saliva on food. Pathology and Surgery: 1. Describe the situation, pathology, and treatment of an epulis. 2. What are the local symptoms of periostitis of the lower jaw? and what are its effects? The following were the questions on Dental Anatomy and Physiology, and on Dental Surgery, to be answered from five to eight o'clock, viz.:—Dental Anatomy and Physiology: 1. Where is the enamel pulp situated? and what is its structure? 2. Describe the anatomical condition of the lower jaw in relation to the teeth, both temporary and permanent, in a child 5 years of age. 3. In what direction does calcification take place in the dentine, the enamel, and the cementum? Dental Surgery: 1. What symptoms, local and general, would lead you to diagnose between inflammation of the pulp and inflammation of the investing membrane of the root or roots of the teeth? 2. What conditions of the teeth give rise to chronic closure of the jaws? How would you treat such closure, and the conditions giving rise to it? 3. Describe the casts numbered 1, 2, 3, and 4; and state how you would treat the irregularities of the teeth which they exhibit.

The following gentlemen, having acquitted themselves to the satisfaction of the board of examiners, were admitted Licentiates in Dental Surgery after the oral examination on the 25th inst., viz.:—

Baylis, Leighton, Cheltenham, student of the Middlesex Hospital.
Coles, James Oakley, Wimpole-street, of King's College.
Harding, William Edward, Acton-crescent, Stafford, of the Middlesex Hospital.
Hutchinson, Samuel John, Manchester, of University and King's Colleges.
Poundall, William Lloyd, London-terrace, Derby, of King's College.

It is deserving of mention that all the candidates passed their examinations.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, June 20, 1872:—

Cartwright, John Peploe, Oswestry.
Dove, Henry, Norwich.
Laver, Arthur Henry, Rayleigh, Essex.
Paradise, Thomas Decimus, Stamford, Lincolnshire.
Pridmore, Campbell William, Abbey-street, Bermondsey.

As Assistants in Compounding and Dispensing Medicines:—

Jones, Owen, Long-acre, W.C.
Badcock, Daniel, Barnard Castle.

The following gentlemen also on the same day passed their Primary Professional Examination:—

Foster, Reginald Henry, Guy's Hospital.
Kirby, Samuel J. J., Middlesex Hospital.
Perrin, Alfred Charles, St. Thomas's Hospital.

APPOINTMENTS.

*** The Editor will thank gentlemen to forward to the Publishing-office, as early as possible, information as to any new Appointments that take place.

Beach, Fletcher, M.R.C.S.—Medical Registrar to the Hospital for Sick Children, Great Ormond-street.

Flower, B. B., M.R.C.S.E., L.S.A.—Assistant House-Surgeon to the General Infirmary, Sheffield.

Gorton, Wm., M.R.C.S., L.S.A.—House-Surgeon to St. Thomas's Hospital.

Laver, Arthur Henry, M.R.C.S., L.S.A.—House-Physician to St. Thomas's Hospital.

Lee, Robert James, M.A., M.D., M.R.C.P.—Assistant-Physician to the Hospital for Sick Children, Great Ormond-street.

Puzey, Chauncy, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A.—Assistant-Surgeon to the Eye and Ear Infirmary, Liverpool.

Rayner, Henry, M.D., M.B., M.R.C.S. Eng., L.S.A., Medical Superintendent of the Male Department of the Hanwell Lunatic Asylum—Lecturer on Psychological Medicine at Middlesex Hospital.

Richards, J. Peeke, M.R.C.S.E.—Medical Superintendent of the Female Department of the Middlesex County Asylum at Hanwell, *vice* Dr. J. Murray Lindsay, appointed Superintendent of the Derby County Asylum.

Sergeant, Edward, M.R.C.S., M.R.C.P.—House-Surgeon to St. Thomas's Hospital.

Snone, Richard L., M.R.C.S. Eng., L.S.A.—Second Assistant Medical Officer to the Essex County Asylum, Brentwood.

Slater, J. S. M.R.C.S., L.S.A.—Resident Accoucheur to St. Thomas's Hospital.

Vernon, Bowater John, L.R.C.P. Lond., F.R.C.S.—Ophthalmic Surgeon to the Great Northern Hospital, *vice* E. C. Hulme, Esq., resigned.

Waters, A. T. H., M.D., F.R.C.P.—Lecturer on the Principles and Practice of Medicine at the Liverpool School of Medicine.

NAVAL APPOINTMENTS.

Admiralty.—Staff Surgeon William Banks Fegen has been placed on the retired list of his rank from the 18th inst.

Medical Department.—John A. Robertson, Assistant-Surgeon to the *Boscawen*.

BIRTHS.

Bowen.—On June 15, at Birkenhead, the wife of Essex Bowen, M.D., of a son.

Fowler.—On June 16, at Kennington-park, the wife of George Fowler, L.R.C.P. Edin., L.M., L.S.A., of a daughter.

Hayden.—On June 19, at Frogmoor House, High Wycombe, Bucks, the wife of W. G. Hayden, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., of a daughter.

Hopkins.—On June 24, at 180, Shoreditch, the wife of Alfred Boyd Hopkins, M.R.C.S. Eng., L.S.A., of a daughter.

MEANE.—At Umballa, India, the wife of John Meane, M.D., Surgeon 72nd Highlanders, of a daughter.

SOLOMON.—On June 8, at Malmo, Sweden, the wife of Ernest Solomon, M.D., of a daughter.

TARRANT.—On June 14, at Lausanne Villa, Bath-road, Hounslow, the wife of Dr. Tarrant, Surgeon 12th Royal Lancers, of a daughter.

MARRIAGES.

NOAD—DIXON.—On June 20, at All Saints', Kensington-park, Henry Caiden Noad, L.R.C.P. Lond., M.R.C.S.E., of Lower Norwood, only son of Dr. Henry M. Noad, F.R.S., of Bayswater, to Caroline White, youngest daughter of Edward Dixon, Surgeon-Major H.M.'s Madras 2nd Light Cavalry.

PAYNE—FREEMAN.—On June 24, at the parish church, Edgbaston, David Payne, of Harborne, to Gertrude, daughter of James Freeman, M.D., of Birmingham.

SWETE—ROYLE.—On June 18, at St. Ann's Church, Sale, Cheshire, Fanshawe Carrington Beaumont, only son of Henry John Beaumont Swete, Esq., late of Oxton, Devon, to Mariana Fanshawe, only daughter of Peter Royle, M.D., J.P., of Vernon Lodge, Brooklands, Cheshire.

WAKEFIELD—BROWN.—On June 25, at St. Andrew's, Plymouth, William Wakefield, M.D., 6th Dragoon Guards, eldest son of J. C. Wakefield, Esq., of Eastwood-park, Renfrewshire, to Amy, niece and adopted daughter of H. Brown, Esq., of North-hill House, Plymouth.

DEATHS.

BOWEN, CECILIA, the beloved wife of Essex Bowen, M.D., at Birkenhead, on June 18, aged 31.

CARLESS, WILLIAM, M.B., C.M., eldest son of Dr. Carless, of Stratford Lodge, Stroud, at Long Melford, Suffolk, on June 17, aged 29.

ELLIOTT, ROBERT, F.R.C.S. Eng., L.S.A., F.S.A., of North-street, Chichester, on June 20, aged 69.

ELLIOT, SOPHIA, third daughter of the late Thomas Elliot, M.D., of Carlisle, at 3, Victoria-terrace, Weymouth, on June 19.

FAWSSETT, REBECCA, youngest daughter of the late John Fawssett, M.D., at Horncastle, Lincolnshire, on June 24.

TRUSTRAM, CHARLES, M.R.C.S. Eng., L.S.A., at his residence at Tunbridge Wells, on June 25, suddenly, aged 64.

VACANCIES.

In the following list the nature of the office vacant, the qualifications required in the Candidate, the person to whom application should be made, and the day of election (as far as known) are stated in succession.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—Resident Medical Officer and Secretary. Candidates must be duly qualified. Applications, with testimonials, to Arthur Chamberlain, Esq., Hon. Secretary, 8, The Crescent, Birmingham, on or before July 15.

DORSET LUNATIC ASYLUM.—Two Assistant Medical Officers. Candidates must be duly qualified and registered. Applications, with testimonials, to John Brown, Clerk to the Visitors, on or before July 10.

GLOUCESTER INFIRMARY.—Assistant-Surgeon. Candidates must be Fellows or Members of the Royal College of Surgeons of London, Edinburgh, or Dublin. Applications, with testimonials, to T. H. Pitre, Secretary, on or before July 4.

HOSPITAL FOR SICK CHILDREN, 49, GREAT ORMOND-STREET.—House-Surgeon. Candidates must possess some legal qualification to practice. Applications, with testimonials, to Samuel Whitford, Secretary, on or before July 9.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, MARGARET-STREET, CAVENDISH-SQUARE.—Visiting Physician. Candidates must be Members of the Royal College of Physicians, London. Testimonials to be sent to Francis Baily, Secretary.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Candidates must possess at least one legal qualification (registered). Applications, with testimonials, to John Horsfall, 31, Albion-street, Leeds.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Lecturer on Physiology; also, Demonstrator of Anatomy. Applications, with testimonials, to R. Harrison, Registrar (from whom further particulars may be obtained), on or before July 6.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY.—Resident Medical Officer. Candidates must be doubly qualified and registered. Applications, with testimonials, to the Secretary, A. R. Emmerson, on or before July 15.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—Resident Medical Officer. Applications, with testimonials, to Ernest Morgan, Secretary. 20, John-street, Adelphi.

SEAMEN'S HOSPITAL, GREENWICH.—House-Surgeon. Candidates must possess at least one qualification. Applications, with testimonials, to Kemball Cook, Secretary, on or before July 6.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY.—House-Surgeon. Candidates must be duly qualified. Applications, with testimonials, to the Chairman of the Committee, on or before June 29.

WESTERN GENERAL DISPENSARY, 10, LISSON-GROVE, N.W.—Resident Surgeon and Apothecary.—Candidates must be Members of the Royal Colleges of Surgeons of London, Edinburgh, or Dublin, and Licentiates of the Apothecaries' Society. Applications, with testimonials, to W. Kimpton, Secretary, before July 15.

YORK COUNTY HOSPITAL.—Non-resident Dispenser. Applications, with testimonials, to Robert Holtby, Secretary, 5, New-street, York, on or before June 29.

UNION AND PAROCHIAL MEDICAL SERVICE.

*** The area of each district is stated in acres. The population is computed according to the census of 1861.

RESIGNATIONS.

Upton-on-Severn Union.—Mr. Wm. T. White has resigned the Fourth District; area 7613; population 2266; salary £60 per annum.

APPOINTMENTS.

Holbeach Union.—Alfred H. Haines, M.R.C.S. Eng., L.S.A., to the Long Sutton and Sutton-bridge Districts.

Peterborough Union.—Joseph Baker Bodman, L.S.A., to the Castor District. Thomas Southam, M.R.C.S., L.S.A., to the Peterborough District.

MR. F. PORTER SMITH, M.B. Lond., has been elected an Honorary Fellow of King's College, London.

THE foundation-stone has been laid of an Hospital and Dispensary at Louth.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC, TRINITY COLLEGE.—The Medical Travelling Prize, value £50, has been awarded to Mr. Matthew Denis Moriarty. The Surgical Travelling Prize, value £50, has been awarded to Mr. Charles B. Ball.

WE are informed that Dr. Sharpey, who has for so many years filled with such great advantage to science and personal distinction the post of Biological Secretary to the Royal Society, has recently sent in his resignation of that appointment. There is a very general hope among Fellows of the Royal Society that Professor Huxley may allow himself to be nominated as his successor.—*Nature.*

POISONING BY HEMLOCK.—The *Manchester Guardian* relates several cases of poisoning from eating the roots of wild hemlock. Two of the cases were fatal.

NOVEL AND ECONOMICAL, IF NOT COMPLIMENTARY TO THE PROFESSION.—The *Liverpool Mercury* contains an advertisement of a "Surgeon wanted," who will be required to act as purser for a steamer.

A MEETING of the National Health Society, which is intended to "unite men and women in a systematic effort to promote health amongst all classes of society," has been held in the rooms of the Social Science Association. Dr. W. H. Corfield read a paper, "How to keep Typhoid Fever out of Houses." The rooms were well filled. Mr. James Heywood, F.R.S., presided. Several speeches were made pertinent to the objects which the Society had in view.

ST. THOMAS'S HOSPITAL MEDICAL AND SURGICAL COLLEGE.—PRIZES FOR THE SESSION.—*First year's students:* H. C. Sanford, Brixton, College Prize, £20, and Hon. Certificate; J. Brock, Northwich, College Prize, £15, and Hon. Certificate; J. K. Pickford, Brixton, College Prize, £10, and Hon. Certificate; H. P. Potter, Denmark Hill, Hon. Certificate. *Second year's students:* C. M. Taylor, Wrawby, Brigg, College Prize, £20, and Hon. Certificate; G. F. Rossiter, Taunton, College Prize, £15, and Hon. Certificate; J. W. Clarkson, Surbiton, College Prize, £10, and Hon. Certificate; J. B. Pike, Leicester, Hon. Certificate. *Third year's students:* A. V. Maybury, Frimley, College Prize, £20, and Hon. Certificate; J. Boulger, Gravesend, Sir William Tite's Scholarship; A. H. Laver, Rayleigh, College Prize, £12 10s., and Hon. Certificate; G. Cleghorn, Bedford, Hon. Certificate; S. Taylor, Burton-on-Trent, Hon. Certificate.

THE LEVÉE.—At the *levée* held on Saturday, at St. James's Palace, by his Royal Highness the Prince of Wales, on behalf of her Majesty, the following presentations were made:—Surgeon Walter F. C. Bartlett, R.N., by the Director-General of the Medical Department of the Navy; H. Barber, M.D., 5th Administrative Lancashire Rifle Volunteers, by Lord Muncaster; Dr. Fleetwood Buckle, R.N., by Sir Francis Pettit Smith; Staff Surgeon-Major T. G. Fitzgerald, by the Director-General of the Army Medical Department; Dr. Frank, by Lord Richard Grosvenor; Surgeon-Major Dr. J. Fayrer, C.S.I., Bengal Army, by the Secretary of State for India; Professor Gross, D.C.L., of Philadelphia, by the United States' Minister; Mr. Samuel Grose, Surgeon R.N., by the Director-General of the Medical Department of the Navy; Deputy Inspector-General of Hospitals N. Hefferman, M.B., by the Director-General of the Army Medical Department; Dr. Thomas Sigertwood, M.D., Deputy Surgeon, by Sir Sydney Cotton, K.C.B.; Dr. J. A. Lush, M.P., by Mr. Thomas Fraser Grove, M.P.; Dr. Minter, Inspector-General of Hospitals, by the First Lord; Deputy Inspector-General of Hospitals W. Munro, M.D., C.B., by the Director-General of the Army Medical Department; Mr. MacCormac, by Colonel the Hon. W. J. Colville; Staff Surgeon William Ross, M.D., R.N., by the Director-General of the Medical Department of the Navy; Deputy Inspector-General Dr. Rutherford, C.B., on appointment as Companion of the Bath, by the Director-General of the Army Medical Department; Sir Henry Holland and Sir Galbraith Logan; Drs. Vernon Bell, Hickes Bird, Brewer, Thomas King Chambers, Frederick Farre, Day-Goss, Gream, Jonas R. Leake, Lowe, MacCormac, Alexander Marsden, Minter, W. M. Muir, C.B., Nicoll, Charles D. F. Phillips,

Poore, Frederick G. Reed, and Swettenham; Messrs. Oscar Clayton, Du Pasquier, Robert Ellis, Fraser (Surgeon-Major), Cæsar Hawkins, Prescott Hewett, Leonard Sedgwick, and T. S. Wells.

CONFIDENTIAL VISITS OF MEDICAL MEN.—At the Quarter-sessions at Coleraine, co. Londonderry, on June 22, before Mr. J. C. Coffey, Q.C., an appeal was made from a decision of the Kilrea magistrates, by whom the defendant had been fined £2 and costs, with the forfeiture of his licence, for selling spirits to be consumed on the premises, contrary to the statute, he having only a grocer's licence. The chief witness for the prosecution before the magistrates was Dr. John M'Kay, who had been attending a patient in defendant's house. The Sessional Crown Solicitor explained that Dr. M'Kay did not volunteer information in the case—on the contrary, he only gave evidence when compelled to do so on summons by the police. His Worship, in confirming the conviction, but reducing the fine, said he wished it to be distinctly understood by those who instituted these prosecutions that, so far as his individual judgment was concerned, the production of Medical testimony in such cases was highly improper. He must repeat emphatically that he utterly disapproved of anyone in charge of those prosecutions, or in any way connected with them, using the evidence of persons in the position of Medical men, or ministers of the gospel, who might happen to be upon the premises in attendance on patients or others requiring their attention. He entirely disapproved of their being taken up and made use of in carrying out convictions of this sort.

THE QUEEN'S UNIVERSITY IN IRELAND.—A stated meeting of the Senate of the Queen's University was held at Dublin Castle, on Wednesday, June 19, at which the following members of the Senate were present:—Sir D. J. Corrigan, Bart., M.P., Vice-Chancellor of the University; the President of Queen's College, Belfast; the President of Queen's College, Cork; the President of Queen's College, Galway; Professor Moffett, L.L.D.; and David Ross, M.A. The Secretary of the University was also present. A meeting of the University was held on the same day, in the Council Chamber, Dublin Castle, at which the Vice-Chancellor conferred the following degrees and diplomas:—*Doctor of Medicine:* John G. Adamson, Queen's College, Belfast; Archibald Adams, Queen's College, do.; James B. Bailey, Queen's College, do.; Robert Evans Burges, B.A., Queen's College, Cork; Richard Davis, Queen's College, Belfast; John G. Collis, Queen's College, Cork; Henry A. Fogerty, Queen's College, do.; James Graham, Queen's College, Belfast; John Hegarty, Queen's College, Galway; Wm. Hickman, Queen's College, do.; H. Maturin Johnston, Queen's College, Cork; Francis B. Kane, Queen's College, do.; John R. Leach, do.; Samuel M'Cutcheon, Queen's College, Belfast; Denis Peter Macdonald, Queen's College, Cork; Peter J. M'Quaid, Queen's College, Galway; Henry Madders, Queen's College, Cork; John A. Malcomson, Queen's College, Belfast; Timothy Moloney, Queen's College, Cork; W. E. Bensall Moynan, Queen's College, Galway; Bartholomew O'Brien, Queen's College, Cork; Patrick O'Connell, do.; Bernard O'Connor, B.A., do.; Simeon Holgate Owen, Queen's College, Belfast; Thomas Patterson, B.A., do.; Richard Read, do.; James Ring, Queen's College, Cork; J. Nashville Ryan, Queen's College, Belfast; J. M. J. Scott, do.; Thomas Francis Sparrow, Queen's College, Cork: William F. Spencer, Queen's College, Galway; William Thomson, B.A., do.; Hugh Charles Wilson, Queen's College, Belfast. *Master in Surgery:* John George Adamson, Queen's College, Belfast; Archibald Adams, do.; Moses Black, M.D., do.; Robert Evans Burges, B.A., Queen's College, Cork; Richard Davis, Queen's College, Belfast; Wm. Fleming, M.D., Queen's College, Galway; Henry A. Fogarty, Queen's College, Cork; James Graham, Queen's College, Belfast; John Hegarty, Queen's College, Galway; William Hickman, do.; Francis B. Kane, Queen's College, Cork; John R. Leach, do.; Peter J. M'Quaid, Queen's College, Galway; Timothy Moloney, Queen's College, Cork; Bartholomew O'Brien, do.; Patrick O'Connell, do.; Thomas Patterson, B.A., Queen's College, Belfast; Richard Read, Queen's College, Belfast, and Galway; James Ring, Queen's College, Cork; J. M. Scott, Queen's College, Belfast; Wm. F. Spencer, do. *Diploma in Midwifery:* J. M'Mahon Brown, M.D., Queen's College, Cork; Ebenezer E. Sloane, M.D., Queen's College, Belfast; J. King Kerr, M.D., do.; Alexander Young, M.D., do.; Moses Black, M.D., do.; John Knox, M.D., do.; John G. Adamson, do.; Robert Evans Burges, B.A., Queen's College, Cork; John G. Collis, do.; Henry A. Fogerty, do.; James Graham, Queen's College, Belfast; Henry Madders, Queen's College, Cork; John A. Malcomson, Queen's College, Belfast; W. E. Bensall Moynan, Queen's College, Galway; Bernard O'Connor, B.A., Queen's College, Cork; Patrick O'Connell, do.; Simeon H. Owen, Queen's College, Belfast; Thomas Patterson, B.A., do.; James Ring, Queen's College, Cork; J. M. J. Scott, Queen's College, Belfast; William Thomson, B.A., Queen's College, Galway. The Secretary of the University announced that the following candidates had passed the first University Examination in Medicine, viz.:—R. C. Burke, Queen's College, Cork; Martin F. Cleary, do.; Ludlow T. Colthurst, B.A., do.; William Cranston, Queen's College, Belfast; Maurice Cremen, Queen's College, Cork; M. De Courcy Curtin, do.; Maurice Daly, B.A., do.; Francis Davison, Queen's College, Galway; Alexander Dempsey, do.; George Dougan, do.; J. E. Vaughan Foss, Queen's College, Cork; Patrick C. Gorham, Queen's College, Galway; George R. Gowland, do.; James C. Gray, Queen's College, Belfast; Henry Grier, do.; Christopher Gunn, Queen's College, Cork; John Wilson Hamill, Queen's College, Belfast; Joseph Henry, do.; Edmund Hemsted, do.; Edwin Hemsted, do.; Wm. R. Huggard, Queen's College, Galway; Wm. C. Jeffries, do.; Edward H. Kelly, Queen's College, Belfast; William M'Iver, do.; Horace Mansell Maybury, do.; William H. Milward, Queen's College, Galway; Jarlath J. Mullen, do.; Michael T. Munro, Queen's College, Belfast: John O'Callaghan, B.A., Queen's College, Galway; Simeon Holgate Owen, Queen's College, Belfast; Joseph Parker, Queen's College, Galway; Norman Pollock, Queen's College, Belfast; Caleb K. Powell, Queen's College, Cork; Michael Ronan, do.; D. J. Ross, do.; Charles E. Sharpe, Queen's College, Belfast; Edward Shipsey, Queen's College, Cork; Edward Smyth, Queen's College, Belfast; Michael Sweetman, Queen's College, Cork; Charles Wadsworth, Queen's College, Belfast; William Edward Warren, Queen's College, Galway; Michael White, do. The Secretary also announced that the following candidates had passed in special subjects, viz.:—Robert Talbot Beamish, Queen's College, Cork; John Bryans, Queen's College, Belfast; James Scott Dill, do.; Edmund J. Dowling, do.; Gerald Fitzgerald, Queen's College, Cork; Joseph R. Gormley, Queen's College, Galway; David M'Coubrey, Queen's College, Belfast; Hugh M'Millan, do.; Douglas Mullin, Queen's College, Galway; William Molloy, Queen's Colleges, Belfast and Cork; Charles Plowman, Queen's College, Cork; John Strahan, Queen's College, Belfast; Alexander Wylie, do.

I CONSIDER, indeed, that the cochlea represents a musical instrument, similar in nature to a harp or musical box, the strings of the one and the tooth of the other represented by the rods of Corti. The spiral bony lamina is simply a sounding-board; around the rods are placed the various nerve-cells and nerve-fibres, and from these cells the impressions are conveyed by the fibres to the brain itself. It is possible, therefore, to trace very completely the course of sounds or vibrations from a musical instrument or any other source to the brain, through the medium of the ear. First the vibrations are caught and collected by the auricle, and transmitted through the external meatus to the drum of the ear, next across the middle to the internal ear. Here the sound is appreciated, merely as a sound, by the vestibule; the direction is discovered by means of the semicircular canals; but to distinguish the note of the sound, it must pass on to the cochlea. The vibration, therefore, passes through the fluid of the cochlea and strikes the lamina spiralis, which intensifies and transmits the vibration to the system of rods. There is doubtless a rod not only for each tone or semitone, but even for much more minute subdivisions of the same; so that every sound causes its own particular rod to vibrate, and this rod vibrating, causes the nerve-cells in connexion with it to send a nerve-current to the brain.—*Urban Pritchard, M.D.*

NOTES, QUERIES, AND REPLIES.

He that questioneth much shall learn much.—*Bacon.*

Sanitary Organisation.—On this subject, which elicits such a variety of opinion, and tries some men's scanty tempers so much, it is well to listen to the words of Dr. Acland—one of the earliest and most laborious and disinterested workers and thinkers on sanitary questions. In a lecture delivered last week at Oxford, he said that we ought to secure for the nation the best possible central Medical authorities for administration. They wanted such an authority as that at the head of affairs, and they wanted such local authorities as would well administer the wise conclusions of the central authorities. They wanted in the central authority to employ the highest intellect of the country. He would say one word as to experts. It was not necessary to have highly skilled persons to do

the ordinary work. It was necessary to have plain practical men—men who were living upright lives and who were on good terms with their neighbours. That was the sort of men they wanted for the local authority. . . . There was at this moment a Bill before the Legislature which was based on the true principle in this matter—that it was not for every corner of the country to dictate in these matters, but that they should be delegated to put in force the conclusions of the best intellect which the empire could provide. . . . The Home Office, the Privy Council, and the Poor-law Board were united in the formation of the Local Government Board, and now we had indeed a complete administrative office, the basis of a scheme for sending out a proper administration to every corner of the land, to every hamlet and every house. The central authority was already constituted. One word as to its duties. In the Bill now before the Legislature the central authority was to have power to do what they might think necessary. They were to have five experts if five were wanted, and fifty if fifty were wanted; but Mr. Stansfeld, with the sagacity of a practical man, declined to hamper himself with fifty or five. The Bill was based upon scientific knowledge, and had the requisite conditions; and he hoped before long we should have this perfectly practical Board supplied with the requisite power of meeting the wants which appeared on all sides.

The Bermondsey Water Famine.—There has been a great lack of water in Bermondsey, and one of our Medical correspondents in the Borough describes hundreds of persons as having been sent away unwashed from the baths and wash-houses for want of water. First-class bathers had only half-allowance of water. Other correspondents tell us that no specific damage to the health of the neighbourhood has yet occurred.

A Country Surgeon sends us the following advertisement. Of course it is a joke, but one that comes sadly near the truth:—

"Wanted a duly qualified Medical man to attend the paupers of five parishes. He will be expected to work by night as well as day; wages one shilling and threepence per day. Also, a few healthy labourers (on the nine hour system); wages three shillings per day. Apply to J. H. Willis, Lewdown, Exeter."

Economy.—The following is the statement alluded to:—

Statement showing the cost of maintenance per week per head of patients for the half-year ending Lady-day, 1872, in the Central London Sick Asylum, Highgate.

	Rate per week. s.	d.
Provisions	5	3½
Necessaries for wards	1	8
Clothing	0	3½
Total	7	3

Erratum.—On page 730, *for* "Dr. William Carlos," *read* "Dr. William Carless."

Disinfectants and Antiseptics.

(From a Correspondent.)

I am often having inquiries as to what "antiseptic" is to be used in a case of small-pox, or what "disinfectant" in cholera; and I am tempted to ask my Medical brethren to use these words themselves, and teach their patients to use them, with more precision than is customary at present.

There seem to be three special and distinct actions performed by the substances which are loosely called "disinfectants" and "antiseptics."

The first is the destruction or decomposition of an organic substance, so as to reduce it to its most stable condition—carbon into carbonic acid, sulphur compounds into sulphates, and (generally speaking) organised matter into inorganic. Amongst such substances we reckon oxygen, ozone, chlorine, chloride of lime or of soda, water, Condy's fluid, charcoal filters, chromic acid, and other substances which part with oxygen readily. The common property of all these is, that they thoroughly oxidise, decompose, and reduce to a harmless state bodies whose existence or whose decomposition is hurtful. Thus, let us suppose a bit of putrid meat dipped into a solution of Condy's fluid, or of chloride of lime: the first thing grappled with is the offensive gases in their nascent state, and the unstable matter which is undergoing decomposition into them. These are quickly oxidised, offensiveness ceases, decomposition is hastened and safened. It is believed that organic matter in a state of minute division, such as pus, contagious discharges, and diseased "germinal matter," would by the same agency be first killed, next reduced to the inorganic state.

The second kind of operation is totally opposite. Instead of hurrying through and completing the work of decomposition, so that the body acted on shall be reduced to a stable inorganic state, this stops decomposition and gives stability to the organic state. Such substances as carbolic acid, creasote, strong vinegar, common salt, and the like, hinder decay, and avert its consequences. Suppose some contagious matter represented by a lucifer match: how can it be made safe? (1) By burning it up, when it can do no more; or (2) by making it incombustible. This analogy may serve to explain the difference between Class I and 2.

A third operation there is, which consists in destroying the living germs which propagate fermentation; and this seems to be done by most substances of powerful chemical qualities—arsenic, sulphurous acid, etc.—and by chloride of lime, as well as by carbolic acid. We may look on this as a subsidiary affair—important, no doubt, but one which follows of itself when powerful agents are used. It is chiefly in the preservation of delicate organic matters—as milk in the dairy, meat in the larder, a woman in childbed, a patient after operation—that the interception or destruction of germs *per se* requires attention, by delicate agents which shall purify the air and not be noxious in themselves.

Now, it is clear that Class I. and Class II. are mutually incompatible. To use chloride of lime, which hastens decay, along with carbolic acid, is to neutralise both. If we spill carbolic acid, one uses Condy's fluid or chloride of lime to get rid of the smell. Choose which you please, and use plenty, but don't mix.

The decomposing powers of water are immense. It is *the* great putrefier; and when there is water enough, and in movement, the oxidising process is rapid and complete—as Letheby showed respecting sewage in rivers. For the same reason, a water-closet is unsafe, because it hastens and furthers initial putrefaction.

There are some things which I am unable to classify with exactitude, though I believe them to belong to the oxidating group. Such are the essential oils, which have a real power of destroying (not of merely hiding) foul emanations. I was very ill some time ago, and unable to leave my room for any purpose, and various substances were used to mitigate the fumes of the *chaise percée*. Condy's fluid was very disappointing, carbolic acid unpleasant; chloralum did not purify the air, nor check the vapours given off at the critical moment. The best thing I found was lavender-water from Apothecaries' Hall, which seems to have great pungency, and the virtue of destroying stinks. Medicus.

Carbolic Acid in Hooping-cough.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Having some reason to think that carbolic acid would be useful in the treatment of hooping-cough, I determined to try it, and had not long to wait for a favourable opportunity, as there was an epidemic in the neighbourhood. Three children in a family were ill with this neurosis, in whom there was no secondary lung complication, the only symptoms being the violent cough with the well-marked whoop—the paroxysm frequently terminating in vomiting, for which I exhibited small doses of carbolic acid—viz., one drop in three ounces of water, the youngest child (4 years old) to take a teaspoonful every four hours, the eldest (12 years) a tablespoonful every four hours. The children were quite well in twenty-one days.

I have since then treated several cases of hooping-cough with carbolic acid with very great benefit. I find that if there is much congestion of the lungs, tartar emetic is generally the most useful drug; and when the pneumonia subsides I give the carbolic acid either alone, diluted with water, or combined with tonics or opium, and find that it always checks the whoop and the violence of the cough, altering the paroxysmal character, and reducing the state to that of convalescence from pneumonia or bronchitic inflammation. Altogether I have treated over ten cases, but have not yet had time to arrange them, as I hope soon to be able to do. At present I only wish to draw attention to the fact that I have found carbolic acid stop hooping-cough in a remarkable manner; and if any of your readers have found or tried the same they might render good service by mentioning the fact, with the manner of administration. I give it, usually, in doses of 1-24th to 1-36th of a drop, freely diluted with water, every four hours, to a child of 6 years old; though at present a child of 4 years is taking one-eighth of a drop three times a day with very great benefit.

Hoping this may elicit some more information on the subject,

I am, &c.,

Church House, Aveley, Romford, June 24. C. Glen Bott.

"Disappearance of Small-pox in Paris."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Under the above heading, in your Journal for June 8, "The Paris correspondent of the *Daily News*" is at a loss to account for the disappearance of small-pox in "unvaccinated Paris, while the disease rages in vaccinated London." Without discussing the subject of vaccination and revaccination, which testify the merciful hand of Providence, abused or neglected as it may be, I would suggest whether the combustion of thousands of tons of gunpowder purified the atmosphere of Paris to such an extent as to render the disease incapable of existing. An experiment on a small scale, if it could be performed with safety, might be worth a trial. We must not, however, forget that epidemics live for a certain time in every town they invade, and then disappear, owing probably to some atmospheric cause which science has not yet unfolded. But if the atmosphere of Paris is not at the present time in a state to favour the incubation of small-pox, it may be in a state to favour the incubation of epidemic cholera or some other disease. Time, however, will prove, and I watch with interest. We know that cases of small-pox have occurred from time to time in every town and village without becoming epidemic, even when sanitary measures have been neglected; but when such measures are neglected by those in authority or by private individuals during the prevalence of an epidemic, the disease is far more destructive to health and life. Hence the importance of being at all times prepared to meet an epidemic as an invading army—the one being a visible, the other an invisible foe.

I am, &c.,

Southampton, June 21. Henry Osborn, M.R.C.P., Lond.

On Compounded Surnames.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—In the pursuit of my humble occupation, I have of late met with a difficulty which I wish to lay before your learned readers. I think that one-half of the permanent value of a book consists in a good index, and in furnishing such we English have hitherto been pre-eminent. Anyone who doubts this can have had but little to do with referring to foreign works, or he would have learned that the French "Table des Matières," or the German "Inhaltsverzeichniss," (our table of contents in fact) forms but a sorry substitute for the English "Index." When, as is almost always the case, this constitutes the sole means of discovering new or forgotten matters, loss of time and temper, and uncertainty of the results of searching naturally ensue. Even such aid is sometimes wanting, for I have seen large German books without the remotest indication of their contents, sometimes not even being divided into chapters.

But to return to our own indexes, or, as some term them more precisely, *indices* (why, I really cannot tell, for surely the word has become sufficiently naturalised amongst us to be entitled to a British plural)—the task of preparing these, until lately, if sometimes laborious, has been simple enough, the compiler having only to read the book and bring all the important points into alphabetical order, taking care not to omit those of an incidental character. It is desirable, indeed, that he should be conversant with the subject on which the book is written, for many indexes are superfluously minute without embracing all important matters. My difficulty, however, relates to names. Here, again, our practice is more simple than that pursued on the Continent; for even there, periodical literature is supplied with indexes, as without such it would remain inaccessible to students with the ordinary duration of life. But in France and Germany they seem to overdo the matter by having a separate index for authors and subjects, which possesses no advantage over our combined index, and consumes more space. Whether in a separate or combined index, the names have to be placed, and the difficulty I allude to consists in knowing how to deal with a modern practice that has sprung up—that is to say, if such names are to be arranged for reference in all times and countries, which probably is the desire of their proprietors. This practice consists in the assumption of two names and connecting them with a hyphen. It probably arose from the desire of distinguishing the possessors of very common names

from each other; and a man who is afflicted (in a literary sense) with one of the Smith, Jones, and Robinson class of names is justified, in the struggle for fame, taking any reasonable step to individualise himself. The depressing effect of this class of names is seen in the fact that, notwithstanding their commanding position in the "Directory," they have produced so few works of note. It has become a custom with all those who wish for some nominal distinction, to prefix to their ordinary surname that which has been adopted from godfathers or other source, in many instances dropping the christian name altogether. Like other fashions, it is being followed rather blindly, many persons assuming these names who find no reason for so doing in the commonness of their own proper names. Doubtless in future most children will be provided with one or more such names, to be hereafter brought into prominence if so desired.

But what is to be done with these new names in an index? This would seem to be simply enough settled; for a man does not cease to be Smith, etc., however remarkable the name may be which precedes this cognomen. This point, however, does not seem to be quite decided, for I find by the "Medical Directory," that while Mr. Fly Smith settles into his proper alphabetical position, Mr. Rye-Smith does nothing of the sort, but takes refuge among the R's. This last gentleman is at least consistent, and when he connects his two names by means of a hyphen he means what he says, and wishes his compounded name to be indexed under R. Not so others; and here is the difficulty which has given rise to this long discourse. Of course to the great bulk of writers it does not matter much where they are put in an index, as they are not very likely to be sought for; but others have a just right to expect that what they have written shall be hereafter consulted, and to be consulted it must be found. In these days of cosmopolitan learning, too, they may wish their fame to penetrate to countries beyond their own. But how are their names to be placed in an index when compounded by means of a hyphen? Ordinary words so treated are, (*e.g.*, a garden-party, a ten-pot), we know, indexed in their order of writing; and why should the practice be different when a man seeks, as it would seem, to create an indissoluble union between his two names? On the Continent, too, where compound names are not of infrequent occurrence, this is the rule—the first name to go into the index. It is a sufficient puzzle for the foreign index-maker to find so many double names among our writers, but when these are wilfully connected with hyphens, they are naturally, and as I contend properly, indexed under the first name. Confusion is thus produced, and writers of (for example) the to us unknown names of Burdon and of Hughlings are sometimes on the Continent credited with the labours we have been accustomed to attribute to Drs. Sanderson and Jackson.

I am, &c., A Medical Index-Maker.

COMMUNICATIONS have been received from—

Mr. Pilleau; Dr. Vance; Dr. Best; Mr. Mark Ogden; Dr. Wickham Barnes; Mr. G. Stevens; Dr. Pearse; Dr. Neilo; A Country Surgeon; Dr. Rumsey; Dr. Pitman; Dr. H. Osborn; Mr. Lowndes; Mr. J. N. Radcliffe; Mr. C. Glen Bott; Dr. Playfair; Mr. J. P. Richards; Mr. Page; Professor Bentley; Dr. Carless; Dr. Philipson; Mr. Garton; Mr. Hutchinson; Dr. Sedgwick; Professor Humphry; Professor Flower; Mr. J. Chatto.

BOOKS RECEIVED—

Contagion du Choléra démontrée par l'Epidémie de la Guadeloupe, par Dr. Pellarin—Traité de Chirurgie d'Armée, par L. Legouest—Injuries and Diseases of the Jaws, second edition, by Christopher Heath, F.R.C.S.—Affections of the Liver and Intestinal Canal, by Stephen H. Ward, M.D. Lond.—Cancer: its Varieties, their Histology, and Diagnosis, by Henry Arnott, F.R.C.S.—On Cerebria and other Diseases of the Brain, by Charles Elam, M.D. Lond.—Report of the Sanitary Condition of Birkenhead for 1871, by C. G. Baylis, M.D., M.R.C.S.—On the Law which Regulates the Frequency of the Pulse, by A. H. Garrod, B.A.—Catalogue of the Museum of the Odontological Society of Great Britain.

PERIODICALS AND NEWSPAPERS RECEIVED—

Glasgow Herald—Hexham Courant—Western Lancet—Pharmaceutical Journal—Gazette Hebdomadaire—L'Union Médicale—Philadelphia Medical Times—Transactions of the Odontological Society of Great Britain, vol. iv., No. 7.

APPOINTMENTS FOR THE WEEK.

June 29. *Saturday* (*this day*).

Operations at St. Bartholomew's, 1½ p.m.; King's, 2 p.m.; Charing-cross, 2 p.m.; Royal Free, 2 p.m.; Hospital for Women, 9½ a.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. Thomas's, 9½ a.m.

July 1. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.; St. Mark's Hospital for Diseases of the Rectum, 2 p.m.; St. Peter's Hospital for Stone, 2½ p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

Royal Institution, 2 p.m. General Monthly Meeting.

2. *Tuesday.*

Operations at Guy's, 1½ p.m.; Westminster, 2 p.m.; National Orthopædic, Great Portland-street, 2 p.m.; Royal Free, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; West London, 3 p.m.

3. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1½ p.m.; Middlesex, 1 p.m.; London, 2 p.m.; St. Bartholomew's, 1½ p.m.; Great Northern, 2 p.m.; St. Thomas's, 1½ p.m.; Samaritan, 2.30 p.m.; King's College Hospital (by Mr. Wood), 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.; St. George's (ophthalmic operations), 1½ p.m.

Obstetrical Society, 8 p.m. Dr. Aveling, "On Post-mortem Parturition." Professor Trenholme (Montreal), "On Irregular Uterine Contractions." And other Papers.

4. *Thursday.*

Operations at St. George's, 1 p.m.; Central London Ophthalmic, 1 p.m.; Royal Orthopædic, 2 p.m.; University College Hospital, 2 p.m.; Royal London Ophthalmic, 11 a.m.; Royal Westminster Ophthalmic, 1½ p.m.

5. *Friday.*

Operations at Central London Ophthalmic, 2 p.m.; Royal London Ophthalmic, 11 a.m.; South London Ophthalmic, 2 p.m.; Royal Westminster Ophthalmic, 1½ p.m.

VITAL STATISTICS OF LONDON.

Week ending Saturday, June 22, 1872.

BIRTHS.

Births of Boys, 1015; Girls, 982; Total, 1997.
Average of 10 corresponding weeks, 1862-71, 1995·1.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	633	597	1230
Average of the ten years 1862-71	647·6	597·4	1245·0
Average corrected to increased population	...	...	1370
Deaths of people aged 80 and upwards	...	...	45

DEATHS IN SUB-DISTRICTS FROM EPIDEMICS.

	Population, 1871.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping-cough.	Typhus.	Enteric (or Typhoid) Fever.	Simple continued Fever.	Diarrhœa.
West	561189	...	7	3	2	5	...	3	1	6
North ...	751688	6	12	4	2	15	...	3	3	3
Central ...	333887	...	3	1	...	5	...	...	...	5
East	638928	6	8	1	1	12	...	2	2	5
South	966132	14	11	..	1	16	2	3	4	6
Total	3251804	26	41	9	6	53	2	11	10	25

METEOROLOGY.

From Observations at the Greenwich Observatory.

Mean height of barometer	29·864 in.
Mean temperature	66·5°
Highest point of thermometer	86·0°
Lowest point of thermometer	51·7°
Mean dew-point temperature	56·0°
General direction of wind	Variable
Whole amount of rain in the week	0·19 in.

BIRTHS and DEATHS Registered and METEOROLOGY during the Week ending Saturday, June 22, 1872, in the following large Towns:—

Boroughs, etc. (Municipal boundaries for all except London.)	Estimated Population to middle of the year 1872.*	Persons to an Acre. (1872.)	Births Registered during the week ending June 22.	Deaths Registered during the week ending June 22.	Temperature of Air (Fahr.) Highest during the Week.	Lowest during the Week.	Weekly Mean of Mean Daily Values.	Temp. of Air (Cent.) Weekly Mean of Mean Daily Values.	Rain Fall. In Inches.	In Centimetres.
London	3311298	42·4	1997	1230	86·0	51·7	66·5	19·17	0·19	0·48
Portsmouth ...	115455	12·1	70	55	79·0	48·6	61·2	16·22	0·24	0·61
Norwich	81105	10·9	41	27	82·5	51·8	65·1	17·28	0·26	0·66
Bristol	186428	39·8	133	67	...	...	...	...	...	...
Wolverhampton ...	69268	20·5	52	27	84·5	46·8	62·4	16·89	0·57	1·45
Birmingham ...	350164	44·7	257	129	84·6	49·7	63·6	17·56	1·98	5·03
Leicester	99143	31·0	53	48	87·2	46·2	61·3	17·94	1·75	4·44
Nottingham ...	88225	44·2	43	40	86·1	47·1	65·6	18·67	0·68	1·73
Liverpool	499897	97·9	310	224	80·7	50·2	61·0	16·11	1·12	2·84
Manchester ...	352759	78·6	285	146	...	...	...	...	...	...
Salford	127923	24·7	86	44	82·5	45·2	62·2	16·78	1·24	3·15
Oldham	84004	20·2	49	37	...	...	...	...	...	...
Bradford	151720	23·0	109	76	83·2	50·2	64·9	18·28	2·58	6·55
Leeds	266564	12·4	208	129	83·0	50·0	64·6	18·11	1·15	2·92
Sheffield	247847	10·9	174	100	82·0	48·0	63·6	17·56	1·35	3·43
Hull	124976	35·1	101	56	81·0	47·0	61·4	16·33	0·10	0·25
Sunderland ...	100665	30·4	95	45	...	...	...	...	...	...
Newcastle-on-Tyne	130764	24·5	70	55	...	...	...	...	...	...
Edinburgh	205146	46·3	138	106	80·0	48·0	63·3	17·39	0·50	1·27
Glasgow	489136	94·8	390	258	...	...	...	...	...	...
Dublin	310565	31·9	202	162	77·4	46·5	61·0	16·11	0·56	1·42
Total of 21 Towns in United Kingd'm	7393052	31·0	4863	3061	87·2	45·2	63·2	17·33	0·95	2·41

At the Royal Observatory, Greenwich, the mean reading of the barometer in the week was 29·86 in. The highest was 30·12 in. at noon on Sunday, the 16th, and the lowest 29·64 in. on Wednesday afternoon.

* The figures in this column, excepting those for London and Dublin, are the unrevised numbers enumerated in April, 1871, raised to the middle of 1872 by the addition of a year and a quarter's increase, calculated on the rate which prevailed between 1861 and 1871. The London population is now based upon the number enumerated in April, 1871, as revised at the Census Office. The population of Dublin is taken as stationary at the number enumerated in April, 1871.

INDEX.

A

Abdomen, penetrating wound of the, case of, 432
Aberdeen, University of, on the Conjoint Examination Scheme, 163
pass-lists of the, 503
Abinger, Lord, letter of, on the Orthopædie Hospital, 373
Abortion, retroflexion of the uterus as a cause of, Dr. Phillips on, 269
criminal, new law against in New York, 109
in China, 530
Abscess near the brachial plexus, simulating tumour, case of, 160
Académie de Médecine, prizes and prize-questions at the, 375
insufficient accommodation at the, 603
Acetate of ammonia, value of, Dr. Beale on the, 91
Acland, Professor, on sanitary organisation, 748
Acton, Mr. on the question of the Contagious Diseases Acts, 207
Acupuncture, abuse of, in China, 509
Adams, Mr. W. note on the Orthopædie Hospital disputes, 473
Adolescence in relation to Surgical affections, M. Gosselin on, 467
Aérothérapie, Dr. Le Roy on, 404
Agricultural labourers, observations on the position of, 400
Air, compressed, Dr. Le Roy on treatment by, 464
composition of the, Dr. Angus Smith on the, 659
Alcock, Assistant-Surgeon, on chloral in epilepsy, 222
Alcohol, abuse of, in New England, Dr. Bowditch on the, 493
elimination of, Dr. Dupré on the, 196
mode of action of, Dr. Beale on the, 245
Dr. M'Murtry's tract on, 134
Dr. Todd's views on the use of, criticised, 72
administration of, Dr. Beale on the, 245, 391, 594
"Medicus" on the, 449
abuse in the, Dr. Williams on the, 184
Mr. Turner on, 53
"Medical Declaration" concerning, observations on the, 43, 58, 88
its origin and results, 542
Dr. Moxon on the, 21
Dr. Beale on the, 392
the Cheltenham Practitioners on the, 164
the Islington Practitioners on the, 662
Aldis, Dr. on the prevention of the spread of infection, 119
on an outbreak of small-pox in Belgravia, 498
Alimentary canal, position of the, in the abdomen, Professor Flower on the, 291
Amaurosis treated by strychnia injection, case of, 398
Dr. Cohn on, 589
from lead-poisoning, case of, 685
Ambulance of Juranville, M. Beaunis on the, 16
America (U.S. of), Medical affairs in, letters on the, 9, 20, 109, 409, 470, 696
Report of the Surgeon-General of the army, 14
"bogus" diplomas in, 409, 466, 696
"free love" in, 434
actions for malpraxis in, 470
progress of Medical education in, 471, 696
meeting of the Medical Association of, 691
prevention of intemperance in, Dr. Bowditch on the, 492
vide New York
Amputation of the breast, antiseptic dressing in, Messrs. Wells and Couper's cases of, 707
through the knee-joint, cases of, 252, 513, 626
Anæmia, bullock's blood in, 720
Anæsthetics, Dr. Simpson's labours on account of, reviewed, 522
Anatomy, comparative, as a mode of force, 41
Anderson, Inspector-General Charles Abercromby, death of, 270
Andrew, Dr. on a case of wide range of temperature, 723
Andrews (St.), University of, pass-list of the, 527
Aneurism, Professor Holmes on the Surgical treatment of, 664, 674, 694, 718
Aneurism, case of internal, Dr. Murray on a, 642
Mr. Bryant's propositions on the treatment of, 319
clinical lecture on the treatment of, 733
femoral, cured by compression, Professor Spence's case of, 625
Mr. Spence on false, 735
popliteal, *vide* Popliteal
of the innominata, Brasdor's operation in, Mr. Holmes on, 718
of the heart, Dr. Quain on, 425
of the cœliac axis, Mr. Bryant's case of, 474
of the aorta, *vide* Aorta
Ankle, excision of the, case of, 251
Angus, Dr. George, obituary notice of, 475
Animalcules in organic fluids, Dr. Dougall on the prevention of, 495
Antiseptic treatment applied to ovariotomy, Dr. Newman on the, 186
in amputation of the breast, Messrs. Wells and Couper's cases of, 707
applied to small-pox, Dr. Foot on the, 400
Antiseptics, Dr. Calvert on, 176
Dr. Dougall on, 495
ancient use of, in Egypt, 740
"Medicus" on, 749
Antrum, distension of the, Mr. Haward's cases of 327
removal of a tumour from the, 513
excision of the maxilla for the, 598
Anus, fissure of the, Professor Dolbeau on, 651
Aorta, aneurism of the, with rupture of valves, Dr. Russell on a case of, 6
aneurism of the arch of the, ligature of left carotid in, case of, 553
abdominal, treatment of, by pressure, Dr. Moxon and Mr. Durham on a case of, 473
Mr. Bloxam's case of, 500
vide Aneurism
Apes and monkeys, digestive organs of, Professor Flower on the, 335, 392, 452, 507
Apollinaris water, 644
Apothecaries Act, important decision under the, 700
Apothecaries' Society, pass-lists of the, 26, 56, 86, 116, 145, 178, 208, 237, 270, 299, 329, 358, 387, 416, 446, 475, 503, 528, 557, 587, 615, 644, 672, 701, 728, 746
letter from the Master of the, on the Conjoint Examination Board, 273
Apothecaries' Hall, Dublin, pass-lists of the, 145
resolutions of the, on the Conjoint Examining Board, 286
Arm, avulsion of the, case of, 627
Army, the British, in relation to preventive Medicine, Dr. C. Williams on the, 61
Army Medical Department, changes in the staff of the Director-General of the, 136
observations on "sick leave" in the, 99
successful candidates for the, 210, 271
qualifications of candidates for the, return on the, 273
the Indian, successful Medical candidates for the, 330
mortality in the, Dr. Bryden on the, 347
United States, report of the Surgeon-General for 1870, 14
Arnott, Mr. Henry, on the pathology of malignant new growths, 33, 154, 307, 367, 456
on the nature of cancer, 324
Art, an untaught, 692
Artery, carotid, thrombosis of the, case of, 138
middle cerebral, plugging of the, case of, 53
subclavian, ligature of the, Mr. Staples on, 186
anterior tibial, rupture of the, case of, 626
Aspirator with capillary trocar, employment of the, 523, 583
Association of Medical Officers of Health, reports of meetings of the, 54, 176, 206, 498
American Medical, meeting of the, 691
French Medical, annual meeting of the, 467
for the Advancement of Science, programme of the, 741
the Irish Medical, meeting of the, 668
Poor-law, *vide* Poor-law
Asthma, spasmodic, Dr. C. Williams on, 649
habitual, 705
Athetosis, case of, 97
Dr. Ritchie on a case of, 342
Atropine, Dr. Calvert on the detection of, 598
Aye-aye, digestive organs of the, Professor Flower on the, 564

B

Baird, Dr. William, obituary notice of, 178
Baker, Dr. James, obituary notice of, 85
Bakewell, Dr. on the treatment of small-pox, 411
on the pathology and treatment of small-pox, 709
Balderson, Mr. Abraham, obituary notice of, 178
Balfour, Professor, note on the female student question, 143
Ballard, Dr. on the duties of Guardians in relation to small-pox, 575
on the sanitary state of Bolton, 730
Bandages, plaster of Paris, removal of, 380
Bantock, Dr. on sponge-tents in uterine hæmorrhage, 414
Barnes, Dr. Thomas, obituary notice of, 445
Dr. Robert, on the essential cause of dysmenorrhœa, 554
Mr. J. W. note on Poor-law Medical Officers, 721, 744
Barnett, Dr. Samuel Boyd, death of, 645
Baümler, Dr. on a case of enteritis, 643
Barratt, Dr. hay-fever non-estival, 721
Bayldon, Dr. John, obituary notice of, 727
Beale, Dr. lectures on the principles of the treatment of fever, 31, 91, 151, 245, 591
on the propriety of prescribing alcohol, 391
on Disease Germs, review, 637
Beaman, Dr., Epilepsy and its Cure, notice, 667
Beasley, Mr., Pocket Formulary, notice, 353
Beatty, Professor Thomas Edward, obituary notice of, 555
Beaunis, M. on the ambulance at Juranville, 16
on a contrast during a campaign, 319
Beck, Dr. Snow, on a case of hydrorrhœa complicating pregnancy, 725
Bedford Infirmary, improvements at the, 75
Beef-tea, Dr. Nichol's formula for, 515
Beer, Whitbread's bottled, 637
Beevor, Mr. Charles, death of, 209
Belcher, Dr., Our Lord's Miracle of Healing, notice, 719
Bennett, Dr. Risdon, Cancerous Intra-Thoracic Growths, review, 263
Berlin, epidemic of small-pox at, 28
Bernays, Professor, on Medico-legal toxicological investigations, 224, 235
Besemeres, Dr. William, death of, 56
Bezeth, Dr. on animal vaccination, 157
Bickerton, Mr. Thomas, obituary notice of, 501
Biddle, Mr. Henry, death of, 300
Bile-pigments and jaundice, Drs. Heynsius and Campbell on, 258
Birmingham, letter from, 383
small-pox at, 382
General Hospital, reports of cases treated at the, 6, 252, 487
Biscuits, Ulrich's, for infants, 299
Black, Staff Surgeon, on horse and cattle sickness at the Cape, 173
Blaxland, Mr. John, death of, 145
Bleeding, general and local, Sir T. Watson on the estimation of, 19
in congestion after fever, Dr. Wilmot on, 22
Blood, spectrum analysis of the, Dr. Waterman on, 46
state of, prior to fever, Dr. Beale on the, 91
microscopical examination of the, in syphilis, 108, 496, 549, 583, 640
Bloxam, Mr. on a case of aneurism of the aorta treated by pressure, 500
Blundell, Dr. Thomas Leigh, obituary notice of, 270
Blythman, Mr. Robert Otter, obituary notice of, 358
Boden, Mr. Robert, death of, 528
Bolton, sanitary state of, Dr. Ballard on the, 630
Books, reviews and notices of, 18, 40, 80, 105, 140, 203, 232, 263, 323, 352, 380, 442, 469, 498, 522, 548, 580, 609, 637, 666, 695, 719
Bott, Mr. on carbolic acid in hooping-cough, 749

Bowditch, Dr. on intemperance in New England, 492
Bows and arrows in modern warfare, effects of, 573
Bradbury, Dr. Beckett, death of, 209
Bradford Fever Hospital, erection of the, 201
Brain, perivascular system of the, Mr. Wagstaffe on the, 695
mummification of the, Professor Broca on the, 582
symptoms of disease of the, Dr. H. Jones on the production of, 593, 653, 680
tumours of the, Dr. Broadbent on cases of, 554, 723
plugging the veins of the, in convulsive seizures, 494
gunshot wounds of the, Professor Podrazki on, 199
concussion of the, paralysis of taste and smell after, 642
Bread made with sea-water, M. Rabuteau on, 148
Bree, Dr., Exposition of the Fallacies of the Hypotheses of Mr. Darwin, review, 666
Bright's disease, Sir William Gull and Dr. Sutton on the pathology of, 628, 669, 688
Brent, Dr. Robert, obituary notice of, 328
Bristowe, Dr. on "previous sewage" in water, 518
Broadbent, Dr. on the cerebral mechanism of thought and speech, 365
clinical lecture on ulcer of the stomach, 369
case of tumour of the pons Varolii and medulla, 554
case of tumour of the brain, 723
Brodhurst, Mr. notes of, on the Orthopædic Hospital dispute, 445, 526
Bromide of sodium, Dr. Clymer on the advantages of, 238
Brown, Dr. James Lundin, of Malvern, obituary notice of, 558, 614
Mr. Samuel William, obituary notice of, 507
Browne, Dr. Alexander, obituary notice of, 613
Dr. Bernard M. death of, 145
Surgeon Alexander, death of, 507
Brunton, Dr. on a case of fibrous enlargement of the uterus treated by ergot, 25
Brussels Medical Society, expulsion of a member of the, 609
Bryant, Mr. on tumours of the external ear, 2
clinical lectures on Intestinal Obstruction, 303, 363, 455
propositions on the treatment of aneurism by, 319
on colotomy in recto-vesical fistula, 327
on lumbar colotomy in rectal obstruction, 564, 677
case of fibro-cystic disease of the uterus and ovaries, 414
case of abdominal aneurism treated by pressure, 474
cases of lacerated perineum, 540
clinical lecture on aneurism, 633
Bryden, Dr. on the connexion of cholera epidemics, 347
Bubo, abortive treatment of, Professor Zeissl on the, 521
Buchanan, Dr. on the effects of cotton-sizing, 633
Büchner, Dr. L., Man in the Past, Present, and Future, review, 609
"Büchnerism and Science," 599
Buenos Ayres, yellow fever of 1871 in, Dr. Scrivener on the, 187
Bulkley, Dr. on clinical thermometry, 520
Bulley, Mr. on a tourniquet for compression in aneurism, 95
on a case of medullary tumour of the femur, 538
Burn, ulceration of the cicatrix in a case of, 130

C

Cæcum of mammalia, Professor Flower on the, 219
Cæsarian section, statistics of the, 110
Dr. Newman on a case of, 699
Calomel, digestion of, 518
Calvert, Dr. Crace, on the prevention of protoplasmic life, 176
on the detection of atropine and strychnine, 598
Cambridge University, scholarships and exhibitions of, for Natural Science, 147
Cancer, nature of, Mr. H. Arnott on the, 324
inutility of condurango in, 235
rodent, Mr. H. Arnott on, 458
Carbolic acid as a means of preserving bodies, 388
cerate of, 388
in hooping-cough, Mr. Bott on, 749
Cardiac pathology and therapeutics, Dr. Silver on, 309, 338
Carless, Dr. William, obituary notice of, 745
Carlos, Dr. William (Long Melford), death of, 730
Carnivora, digestive organs of the, Professor Flower on the, 621, 678
Carotid artery, thrombosis of the internal, case of, 138
Carpeting, dust-proof, 700
Carroll, Mr. on "open surgeries," 589
Carruthers, Mr. James, death of, 587
Carter, Mr. B. on a case of convergent strabismus, 83
Castaldi, Dr. on the plague in Persia, 258
Cataract, M. De Wecker's operation for, 639
Cattle, Mr. W. D. death of, 503
Cattle disease at the Cape, Staff Surgeon Black on, 173
Cellular Pathology, the new edition of Virchow's, 376
Cerebral veins, plugging of, in convulsive seizures, Dr. Jackson on, 494
artery, plugging of the middle, case of, 53
Certificates of death, caution as to giving, 405
Chapman, Dr. on Dr. Radcliffe's theory of pain, 66
reply of Dr. Radcliffe to, 153
Diarrhœa and Cholera, review, 203
on the theory of cholera poisons, 355
Chappell, Mr. John C. death of, 358
Cheiloplastic operation, Dr. Fayrer's case of, 539
Chelmsford Dispensary, Dr. Nicholls on the abuses at the, 137, 144
Chemical climatology, Dr. Angus Smith's researches on, 659
Chemists, illegality of prescribing by, 134
as superseding general Practitioners, "Fifty-five" on, 526, 550
"Sexagenarius" on, 641
"practising," observations on, 572
Mr. Carroll on, 589
"W." on, 589
"An Old M.D." on, 647
"E." on, 698
specimen of, in a court of law, 600
Baron Martin's defence of, 714
Child, a piebald, 143
Children, Ulrich's bisenits for, 299
lienteric diarrhœa in, Dr. E. Smith on, 656
treatment of empyema in, Dr. Playfair on the, 174
erysipelas of, application in, 568
pyuria in, Dr. Jordan on, 539
mortality of, in France, 743
Chimpanzee, digestive organs of the, Professor Flower on the, 336
China, sanitary rules at the ports of, 716
Chloral in traumatic tetanus, 249, 388
local employment of, 415
in epilepsy, Assistant-Surgeon Alcock on, 222
Chlorides, physiological properties of, M. Rabuteau on the, 15
Chloroform, safe mode of administering, 200
discussion on the employment of, at Lyons, 716
Sir James Simpson's labours regarding, reviewed, 522
combination of subcutaneous injection with, 349
Mr. Mayor on, 383
supposed death from, 349
Cholera, genesis of, Dr. Chapman on the, 355
cosmic theory of, Mr. Jenkins on the, 608, 647
experiments with matter of, Dr. Patterson on, 472
connexion of epidemics of, Dr. Bryden on the, 347
history of the propagation of, Mr. Jenkins on the, 608
Annals of, Dr. Macpherson's, review, 433
prospects of, Mr. Radcliffe on the, 399
diffusion of, in Europe, Mr. Radcliffe on the, 736
in East Coast of Africa, Dr. Christie on the, 474
pathology and treatment of, Dr. G. Johnson on the, 35, 125
Dr. Niemeyer on the Symptomatic Treatment of, review, 352
subcutaneous injection of morphia in, Dr. Patterson on, 95
Dr. Chapman's Treatment by Ice-bags, review, 203
Chorea oscillatoria, case of, 130
unilateral, atrophy of the face following, case of, 386
Christie, Dr. on cholera in Eastern Africa, 474
on latent malarious disease, 550
Christison, Professor, letter of, on Conjoint Examination Boards, 280
Churchill, Mr. on a fatty tumour simulating ranula, 160
on the treatment of syphilis by fumigation, 190
Classics, study of the, Dr. Freeman on the, 703
Clayton, Mr. M. H. death of, 116
Clifford, Mr. Joseph, death of, 358
Climatology, chemical, Dr. Angus Smith's views on, criticised, 659
Clinical Society, reports of meetings of the, 83, 234, 327, 386, 412, 553, 612, 642, 723
address of Sir William Gull at the, 131, 139
Clinical exercises, M. Lasègue's, 103
Clubs (Medical), resolutions at Norwich on fees for, 28
Cobbe, Mr. Charles, death of, 587
Cobbold, Dr., Lectures on Worms, review, 263
Cobra, Dr. Shortt's experiments with the, 730
Coccygodynia, Sir James Simpson on, 680
Cockle, Dr. and Mr. Heath, case of aneurism of the arch of the aorta, 553
Cold, the precocious, of 1871, 27
Cold, apparatus for application of, Dr. Robertson on an, 55
Coleman, Mr. Thomas, death of, 388
Collins, Mr. on cheap London microscopes, 478
Collyer, Dr. on the plea of insanity, 89
on Medical evidence, 210
on the registration of foreign diplomas, 240
Colon, distension of, from constipation, Dr. Peacock's case of, 268
Colotomy, lumbar, Mr. Maunder's cases of, 223
in recto-vesical fistula, Mr. Bryant on, 327
in rectal obstruction, Mr. Bryant on, 564, 677
Colville, Mr. on pensions of Poor-law Medical Officers, 205, 478
Comets, expected collisions with, 226
Congress, projected Medical, at Lyons, 375
of German Surgeons at Berlin, 465
Constipation, advice to sufferers from, 211
distension of the colon from, case of, 268
Contagious Diseases Acts, question of the, in a nutshell, 169
observations on the proposed settlement of the, 192
Mr. Bruce's statement concerning the, 200
Mr. Acton on the question of the, 207
moral aspects of the, Mr. Curgenven on the, 360
Bill for the amendment of the, 258
Convulsive seizures, with plugging of cerebral veins, Dr. Jackson on, 4, 94
sequence of spasm in, 94
Cooke, Mr. Weeden, obituary notice of, 643
Cookery-books, account of some new, 515
Copaibu balsam in small-pox and scarlatina, 206
Copyright question in America, 410
Cornea, opacities of the, Mr. Dunnage on tinting of, 294
Cornwall, Dr. James, death of, 644
Coroner's court, privileges and duties of the, Dr. Lankester on the, 165
inquests and post-mortems at St. Pancras, question of, 361, 576
case at Lincoln, exemplifying the necessity of, 489
Coryza, the rapid cure of, 27
Condurango, inutility of, in cancer, 235
Cottage Hospitals in relation to infectious disease, 632
Cotton-sizing, Dr. Buchanan on the effects of, 633
Counter practice, legal decision on, 134
Craddock, Dr. William, death of, 476
Criminals, how to utilise, "Calumet" on, 589
"T. M. S." and "Scrutator" on, 617
Crouch, Mr. John, obituary notice of, 504
Croup, treatment of, in Paris, 583
Crushing, autopsy in a fatal case of, 290
Curgenven, Mr. on the moral aspects of the Contagious Diseases Acts, 360

D

Dale *v.* Constable, 346
doggerel verses on, 389
Dale, Mr. on the sanitary state of Londesborough Lodge, 118
Dalton, Professor, Human Physiology, notice, 353
Darwin, Charles, Origin of Species, review, 324
Exposition of the Fallacies of, by Dr. Bree, review, 666
Daunt, Dr. note, "de multis," 119
Day, Dr. George Edward, biographical sketch of, 177
Death certificates, caution as to giving, 405
Delamere's Wholesome Fare, review, 515
Delirium tremens simulating typhus, case of, 130
criminal responsibility in, the law on, 371
Delivery, mechanism of, Dr. Duncan on the, 247
De Morgan, Mr. Campbell, Origin of Cancer, review, 719
Demarquay, M. on intramuscular injection in tetanus, 439
on aspiration in the reduction of hernia, 634
Dendy, the late Mr. note of Dr. Hogg concerning, 23
Dengue, prevalence of the, in Calcutta, 574, 695, 675
Dentists, earliest English, 505
Deschanel, M., Natural Philosophy, review, 696
Diamond-fields of South Africa, Mr. Egan on the state of the, 111
Diarrhœa, lienteric, in children, Dr. E. Smith on, 656
Dickson, Dr. John, death of, 702
Digitaline, crystallised, 138
Digestion, organs of, in the mammalia, *vide* Flower, Professor
Dillon, Dr. Garrett, obituary notice of, 504
Diphtheria, Dr. Gulia's treatise on, reviewed, 80
plugging the trachea in a case of, 596
discussion on, at the Lyons Medical Society, 467
followed by paralysis, Dr. Greenhow's case of, 612
prevalence of, in Paris, 582
Diplock, Dr. on the frequency of rupture of the heart, 383
Diplomas, registration of foreign, Dr. Collyer on the, 240
American bogus, 469, 466, 696
Disinfectants, Dr. Angus Smith on, review, 659
"Medicus" on, 749

Disinfecting fluid, Westerton's zymotic, 644
Dislocation of the hip, treated by manipulation, case of, 314
case of, under M. Tillaux, 743
compound, case of, 96
Dispensaries, parish, working of the, at Birmingham, 382
provident, and their evils, 162
and Foresters, 345
self-supporting model, "Junius Medicus" on, 206
Doctor, convictions for assuming the title of, 545, 714, 726
the, in the witness-box, observations on, 687
Dog, digestive organs of the, Professor Flower on the, 621
Dolbeau, Professor, students' row concerning, 381, 409, 417, 448, 468
on fissure of the anus, 651
Donkin, Dr. reply of the reviewer to, 174
rejoinder of, to the reviewer, 205
Doran, Mr. Dudley, death of, 529
Dougall, Dr. on the prevention of animalcules in fluids, 495
Druitt, Dr. case of perforating ulcer of the stomach, 220
Drunkenness at Liverpool, 44
in New England, Dr. Bowditch on the prevention of, 492
mode of punishing, in Russia, 521
Dublin, letters from, 171, 668
the epidemic of small-pox at, 172, 405, 437, 519, 546, 645, 661
University, pass-lists of the, 208, 728, 746
Dubois, M. Urban, Household Cookery Book, review, 515
Duffy, Mr. on the ill-treatment of the Profession at Valparaiso, 82
Dunant, Monsieur Henri, appeal in favour of, 617
Duncan, Dr. Matthews, on the operation for procidentia uteri, 69
on the mode of progress of the science of parturition, 122
on a case of ovarian disease complicated by ascites, 191, 541
on the curves of the genital passage, 246
on a case of adhesive perimetritis, 398
on laceration of the perineum, 627
on long delay of labour after discharge of the liquor amnii, 725
Dunn, Mr. Charles, death of, 558
Dunglison, Professor, History of Medicine, notice, 581
Dunnage, Mr. on tinting opacities of the cornea, 294
Dupré, Dr. on the elimination of alcohol, 196
Durham University, pass-list of the, 502
Dwellings of the working classes, observations on the, 488
Dysentery, formula in, 380
Dysmenorrhœa, essential cause of, Dr. Barnes on the, 554
Dyte *v.* the guardians of St. Pancras, 104

E

Ear, extraction of foreign bodies from the, 703
external, tumours of the, Mr. Bryant on, 2
anomalies of the, Professor Laycock on the, 320
internal physiology of the, Dr. Pritchard on the, 748
Eastwood, Dr. Charles Septimus, death of, 270
Eczema palpebrarum, Mr. Walton on, 32
Edinburgh, letters from, 106, 142, 383
Edinburgh Royal Infirmary, reports of cases treated in the, 69, 191, 398, 430, 541, 627, 711
Edinburgh University, the women Medical student question at the, 45, 106, 142, 180, 383
note of Professor Balfour on, 143
refusal of the conjoint examination scheme by the, 712
Edmunds, Miss, trial of, for poisoning with strychnine, 71, 100
"One in Court" on the case of, 111
Edwardes, Mr. John, death of, 56
Egan, Mr. on the sanitary condition of the South African diamond-fields, 111
Elbow, excision of the, Mr. Maunder's case of, 251
Mr. MacCormac's case of, 384
Mr. Spence's cases of, 430
Mr. Jackson's case of, 685
Electricity, measurement of temperature by, Mr. Siemens on the, 348
Elephantiasis scroti, Dr. Fayrer on a case of, 486
Elliott, Mr. Robert, death of, 747
Embolism, with softening of the cerebral lobes, specimen of, 357
Emphysema, vesicular, of the lungs, Dr. Williams on, 705
Empyema, paracentesis in, Dr. Williams on, 421
treatment of, in children, Dr. Playfair on the, 174
Endocarditis, ulcerative, case of, 130
Enema apparatus, account of Arnold's, 726
Enteritis in relation to purgatives, Dr. Baümler's case of, 643
Epicondyloid and epitrochlear foramina, Mr. Perrin on the, 37, 308
Epidemiological Society, notice of meeting of the, 474
Epilepsy, with plugging of cerebral veins, Dr. Jackson on, 4
in the army, "General Practitioner" on, 211
chloral in, Assistant-Surgeon Alcock on, 222
bromide of sodium in, Dr. Clymer on, 238
bromide of potassium in, Dr. Legrand du Saulle on the value of, 318
after fracture of the skull, trephining in, Dr. Boutelle on, 407
Epiphyses, affections of the, in relation to adolescence, M. Gosselin on the, 469
Epiphysis of the humerus, separation of the, case of, 432
Epithelioma, Mr. H. Arnott on, 456
of the leg, amputation for, case of, 513
of the lip, Dr. Fayrer's case of, 539
Epsom College, observations on the Report of the, 571
Erectile tumour of the intestinal canal, 740
Erysipelas, precocious, M. Verneuil on, 547
application in infantile, 568
Evidence, Medical, *vide* Medical
Evans, Mr. Benjamin, obituary notice of, 328
Examining Board (Conjoint), observations on the scheme for a, 13, 163, 226, 681, 688
memorial from Scotland to the Medical Council concerning the, 227
meeting of the Medical Council in relation to the, 254, 262
debate at the Medical Council on the, 273
for Scotland, the scheme for a, 133, 163
communication to the Medical Council from Scotch Professors on the, 279
letter from Professor Christison on the, 280
debate in the Medical Council on the, 281, 284
Dr. Gairdner on the, 373
refusal of, by the Edinburgh University, 712
for Ireland, debate at the Medical Council on the, 287
Excision of the ankle, case of, 251
of the elbow, cases of, 251, 381, 430, 685
of the hip-joint, case of, 512
Mr. Hancock on, 213, 305, 425, 481, 619
of the knee, sinuses following in a case of, 159
of the maxilla, plugging the trachea in, 510
for a tumour in the antrum, 598
of the shoulder-joint, cases of, 384, 598
Exostosis in relation to adolescence, M. Gosselin on, 468
multiple, specimen of, 722
Expectation, treatment by continued, 8
Extra-uterine pregnancy, discussion on the treatment of, 23
Mr. Metcalfe Johnson on a case of, 655
Eyelids, eczema of the, Mr. Walton on, 32
dropped, Mr. Walton on the operation for, 97

F

Face, fracture of bones of the, cases of, 68
unilateral atrophy of the, case of, 386
Family secrets, dangerous character of, 8
Farre, Dr., Harveian Oration of, noticed, 739
Fatty degeneration of the heart, Dr. Quain on, 423
Fayrer, Professor, on the radical cure of inguinal hernia, 396
case of elephantiasis of the scrotum, 486
case of epithelioma of the lip, 539
case of shark-bite, 682
Fees of old and young Practitioners, 558
table of, established at Liége, 662
Felidæ, digestive organs of the, Professor Flower on the, 622, 679
Femur, medullary tumour of the, Mr. Bulley's case of, 538
osteo-sarcoma of the, case of, 553
Fernerley, Mr. Charles, obituary notice of, 115
Fever, principles of treatment of, Dr. Beale on the, 31, 91, 151, 245, 591
bloodletting in congestion after, Dr. Wilmot on, 22
administration of food and stimuli in, Dr. Beale on the, 151, 245, 591
varieties of, following Surgical operations, Mr. Spencer Wells on the, 93, 483
intermittent, sphygmographic tracings in a case of, 341
quotidian malarial and syphilitic, Dr. Reade on a case of, 511
enteric, beginning with pneumonia, cases of, 131
uræmic, Mr. Spencer Wells on a case of, 483
Fever Hospital (the London), the private wards at the, 10
at Bradford, erection of a, 201
Fibroid disease of the uterus, *vide* Uterus
Fingers, clubbing of the, 445
Firth, Mr. Joseph Thomas, death of, 270
Fishes, Professor Flower's lecture on, 74
Fistula in ano, treatment of, by benzoic acid, 28
recto-vesical, colotomy in, Mr. Bryant on, 326
Fleming, Surgeon-Major, Medals, Clasps, and Crosses, review, 81
Flogging at Newgate, 464
Flower, Professor, lecture on fishes, 74
lectures on Comparative Anatomy of the Organs of Digestion of the Mammalia, 215, 291, 335, 392, 451, 507, 561, 621, 678
Fœtation, extra-uterine, discussion on the treatment of, 23
Mr. M. Johnson on a case of, 655
Foot, Dr. A. W. on the antiseptic treatment of small-pox, 400
Foot and mouth disease in man, Dr. Gooding's cases of, 94
Force, comparative anatomy as a mode of, 41
Forceps-scissors, Mr. Higgens on a, 208
Foresters, the, and Provident Dispensaries, 345
Forster, Mr. Cooper, cases of popliteal aneurism, 234
Fowler, Dr. eligibility of, as a Poor-law Guardian, 690
Fox, Dr. Tilbury, on the endemic skin diseases of India, 161
Dr. Edward Lloyd Harries, obituary notice of, 614
Fracture of the face, cases of, 68
of the hand, case of compound, 627
compound, of the humerus, excision after, case of, 231
ununited, of the humerus treated by resection, case of, 711
Fractures of the Limbs, Mr. Gamgee on, review, 380
France, suicide in, M. Decaisne on the causes of, 16
diminished population of, 720
mortality of children in, 743
conditions under which foreign Physicians may practise in, 602
National Assembly of, and the Medical Profession, 663
vide Paris
Franks, Mr. George, death of, 86
Freeman, Dr. on the study of the classics, 703
Frosts, temperature of subsoil in severe, 88
Fumigation, new vaporiser for, 191
Furse, Mr. Robert, death of, 358

G

Gairdner, Dr. on Conjoint Examination Boards, 373
on preventive *v.* curative Medicine, 630
Gatis, Mr. James, obituary notice of, 328
Gamgee, Mr., Treatment of Fractures, review, 380
Gangrene, spontaneous, Mr. Gant on a case of, 553
Gaskoin, Mr. on the leprosy of the middle ages, 485
Gastrotomy in stricture of the œsophagus, Mr. T. Smith's case of, 724
Geneva, epidemic of small-pox at, 260
Genital passage, Dr. Duncan on the curves of the, 246
George's (St.) Hospital, reports of cases treated at, 130, 540
German, Dr. Joseph, death of, 388
German Hospital, Dalston, reports of cases treated at the, 541
Germs (Disease), Dr. Beale on, review, 637
Gill, Mr. William Seth, obituary notice of, 701
Glands, abortive treatment of enlarged, Professor Zeissl on the, 521
Glasgow University, degrees conferred by in 1870-71, 616
Glaucoma, iridectomy in intermittent, case of, 370
Gliomata, Mr. H. Arnott on, 307
Gooding, Dr. cases of foot and mouth disease in man, 94
Gordon, Dr. James Alexander, death of, 504
Deputy Inspector-General, on Surgical returns during war, 177
French and English Soldier, notice of, 469
Gorilla, digestive organs of the, Professor Flower on the, 336
Gosselin, Professor, on adolescence in relation to Surgical affections, 467
Grace, Mr. Henry M. obituary notice of, 25
Graham, Dr. Fitzgibbon Longwood, death of, 504
Granville, Dr. Augustus Bozzi, obituary sketch of, 327
Granular medicines, Young and Postans', 557
Gratuitous advice, "A Reformer of Abuses" on, 144
Guérin, M. A. *pansement ouaté* of, 406
Guillaume, M. le Dr., *Hygiène Scolaire*, review, 711
Gulia, Dr., *Notizie Cliniche sulla Difteria*, review, 81
criticism of, on Dr. Todd's stimulant practice, 72
Gull, Sir William, address of at the Clinical Society, 131, 139
on the pathology of Bright's disease, 628, 669, 688
Gunshot wounds, *vide* Wounds
Gynæcological bag, Arnold's, 700
Guy's Hospital, reports on cases treated at, 5, 96, 130, 513, 540

H

Hæmatemesis from ulcer, Dr. Broadbent on, 369
Hæmophilia, Dr. Legg's treatise on, review, 263
Hæmorrhage, uterine, sponge-tents in, 414

Hæmorrhoids after labour, 505
Haire, Dr. Thomas, death of, 300
Hamilton, Dr., Practical Treatise on Fractures and Dislocations, review, 105
"Dr." John, conviction of, under the Medical Act, 726
Mr. R. on the synovial membranes in pyæmia, 641
Hammerton, Mr. Thomas, death of, 179
Hampstead Small-pox Hospital, report on the results of the inquiry concerning the, 13
Hancock, Mr. lectures on Excision of the Hip-joint, 213, 305, 425, 481, 619
Harley, Dr. George, the Urine and its Derangements, review, 323
Dr. John, account of the physiological laboratory at St. Thomas's, 17
Harris, Mr. Henry, obituary notice of, 644
Mr. Charles, death of, 644
Hartnack's microscopes described, 372
Hartsen, Dr. on Maudsley's "Body and Mind," 170
Harveian Oration by Dr. Farre, notice of the, 739
Harvey, Dr. Joseph Alfred Radcliffe, death of, 476
Haward, Mr. cases of distension of the antrum, 327
Hay fever, non-estival, Dr. Barratt on, 721
Head symptoms, Dr. H. Jones on the production of, 593, 653, 680
Health (Public), Professor Stokes's address on, 440
provisions of Mr. Stansfeld's Bill, 321, 399
note of Mr. Milward on the, 411
note of Dr. Woodward on the, 721
deputations concerning the, 442
Dr. A. P. Stewart's notes on the, 530
Dr. Acland on the, 748
vide Sanitary
Health, Medical Officers of, Poor-law Officers as, *vide* Poor-law
Association of, *vide* Association
Heart, innervation of the, Dr. Rutherford's lecture on the, 408
diseases of the, value of the sphygmograph in, 427, 569
mitral disease of the, Dr. Silver on, 309, 338
the sphygmograph in, 569
diseases of the muscular walls of the, Dr. Quain's lectures on the, 351, 394, 423
enlargement of the, Dr. Quain on, 352, 394
fatty degeneration of the, Dr. Quain on, 423
rupture of the, Dr. Diplock on the frequency of, 383
Dr. Quain on, 424
aneurism of the, Dr. Quain on, 425
tumour in the, specimen of, 552
Heat, apparatus for applying, Dr. Robertson on, 55
Heckford, Dr. Nathaniel, obituary notice of, 25
Hemiplegia (left), Dr. Jackson on a case of, 513
Hende, Dr. William Wentworth, death of, 587
Henderson, Professor William, obituary notice of, 463
Hermaphrodite, specimen of a, 722
Hernia, intestinal obstruction in, Mr. Bryant on, 363, 454
the aspirator in the reduction of, M. Demarquay on, 635
inguinal, Professor Fayrer on the radical cure of, 396
Hewitt, Dr. Graily, on acquired deformities of the uterus, 412
Higgens, Mr. on a forceps-scissors, 208
Hill, Mr. John, death of, 116
Dr. and the St. Pancras Guardians, 576
Hip, dislocation of the, treated by manipulation, case of, 344
case of, under M. Tillaux, 743
compound dislocation of the, autopsy of a case of, 96
excision of the, Mr. Hancock's lectures on, 213, 305, 425, 481, 619
case of, 512
Histology, "practical" observations on, 40
Hoffman, Dr. Karl, on recent researches on the urine, 76
Dr. Stevenson's criticism on, 110
Hogg, Dr. F. on typhus fever, 173
on the complications of pregnancy, 597
Mr. Jabez, note on the late Mr. Dendy, 23
Holland, disposal of sewage in, 354
births and deaths in, in 1871, 522
Holland, Sir Henry, Recollections of a Life, review, 140, 377
Holmes, Mr. on suppurating ovarian cysts, 384
on the Surgical treatment of aneurisms, 664, 674, 694, 718
Hooping-cough, carbolic acid in, Mr. Bott on, 749
Horner, Dr. Thomas, death of, 358
Hospital practice in Medicine and Surgery, reports on, 5, 39, 68, 96, 130, 159, 190, 223, 251, 310, 343, 369, 398, 458, 487, 512, 540, 598, 626, 656, 684, 711
Hospital, Birmingham General, reports of cases treated at the, 6, 252, 487
Edinburgh (Royal Infirmary), reports of cases treated at the, 69, 191, 398, 430, 541, 627, 711
Fever, at Bradford, erection of the, 201
Hospital, London Fever, the private wards of the, 10
German, at Dalston, cases at the, 541
Guy's, cases treated at, 5, 96, 130, 513, 540
Hampstead Small-pox, report on the inquiry concerning, 13
Hôtel-Dieu, at Paris, unsuitableness of the, 78
Hull (Infirmary), cases treated at the, 685
King's College, cases treated at, 39, 159, 598
Leeds (General Infirmary), cases treated at the, 97, 224
Liverpool Southern, cases treated at the, 341
account of the new, 611
London, cases treated at the, 40, 159, 223, 251, 431, 513
disputes at the, 579, 665
accidental poisoning at the, 497
Lying-in, Report on the Dublin, 171
Middlesex, cases treated at the, 190, 310, 459, 512, 598, 626
Ophthalmic (the Royal), cases treated at the, 370, 711
Orthopædic, disputes at the, *vide* Orthopædic
St. George's, cases treated at, 130, 540
St. Mary's, cases treated at, 96, 369
St. Thomas's, cases treated at, 6
Seamen's (Greenwich), cases treated at the, 343, 656
Small-pox, report of the, for 1871, 168
University College, cases treated at the, 68
Vienna General, clinical teaching at the, 578
Hospitals (Cottage) in relation to infectious diseases, 632
Hôtel-Dieu, unsuitableness of the, 78
Hull Infirmary, report of cases treated at the, 685
Humerus, epicondyloid and epitrochlear foramina of the, Mr. Perrin on the, 37
excision of the diaphysis of the, after gunshot fracture, 231
ununited fracture of, treated by resection, 711
Humphry, Professor, lectures on human myology, abstract, 742
Hutchinson, Mr. Joseph, obituary notice of, 701
Hutchison, Mr. Charles, 644
Hydatid tumour of the thigh, specimen of, 385
Hydraulics, domestic, reform in, 745
Hydrocele, a large, 589
Hydrophobia, spontaneous case of, 231
Hydrorrhœa during pregnancy, Dr. Beck on a case of, 725
Hygiène scholaire, Dr. Guillaume on, 711
Hygiene, teaching of, in French Colleges, 520, 716
Hylohates, digestive organs of, Professor Flower on the, 393
Hyperpyrexia, continuous irrigation in, Dr. Neale on, 173
in rheumatic fever, Dr. Weber on, 386

I

Impalement, Dr. Sargent on a case of, 407
India, endemic skin diseases of, Drs. Fox and Farquhar on the, 161
the army in, *vide* Army
Indium, Dr. Odling on, 101
Infanticide, Mr. Lowndes on, 498
Infants, *vide* Children
Infection, preventing the spread of, Dr. Aldis on the, 119
Cottage Hospitals in relation to, 632
Inflammation, stimulants in the treatment of, Dr. Beale on, 591
abuse of, Dr. Williams on the, 184
vide Alcohol
Ingle, Dr. Thomas, death of, 145
Insanity, Dr. Sheppard's introductory lecture on, 535
employment of restraint in, in the United States, 370
plea of, observations on the, 70, 100, 210
Mr. Stokes on the, 119, 148
in delirium tremens, 371
"insensibility of position" as a sign of, 132
defects in the Medical jurisprudence of, 265
Intestinal canal, position of the, Professor Flower on the, 291
erectile tumour of the, 740
Intestinal obstruction, Dr. Handfield Jones on cases of, 3, 64
Mr. Bryant's clinical lectures on, 303, 363, 454, 564
lumbar colotomy in, 564, 677
from persistent omphalomesenteric duct, Dr. Southey on, 412
from stricture, specimen of, 552
artificial anus in the small intestine in, 641
Ireland, bad sanitary state of, 228
Queen's University in, pass-list of the, 748
Islington, sanitary state of, 117
Itch cured by Peruvian balsam, 540

J

Jackson, Dr. Hughlings, on partial convulsive seizures, 4, 94
on a case of left hemiplegia, 513
Surgeon Peter Nevill, obituary notice of, 643
Jaeger, Professor, obituary notice of, 125
Japan, the Medicine of the future in, 740
Jaundice, epidemic of, in Paris, 138
Jaw, the man with the iron, 417
Jaw, caries of the, frequency of, in China, 53
Jayakar, Mr. case of amaurosis treated by strychnia, 398
Jenkins, Mr. A. chapter in the history of cholera, 608, 647
Jenner, Dr., Sir J. W. Fisher's memento of, 137
Jerdon, Surgeon-Major Thos. Caverhill, obituary notice of, 745
Jersey, neglect of vaccination in, 296
Johnson *v.* Carpenter, 236
Dr. George, on the pathology and treatment of cholera, 35, 125
on elimination of small-pox, 233
replies to, 264, 265
on the analogy between small-pox and cholera, 299
on the pathology of Bright's disease, 628
Mr. Metcalfe, on a case of extra-uterine fœtation, 655
Johnston, Dr. George, report on the Rotunda Lying-in Hospital, 171
Jones, Dr. Handfield, cases of intestinal obstruction, 3, 64
on the production of head symptoms, 593, 653, 680
Mr. John, death of, 209
Jordan, Dr. on pyuria in children, 539
Jotham, Mr. George William, obituary notice of, 643
Joy, Dr. on the tyrannical treatment of the Profession at Valparaiso, 51
Junker, Dr. on the tracheal tampon, 510, 595
Japanese appointment of, 740
Jury of matrons at the Old Bailey, 98

K

Kidney, uræmic poisoning in disease of the, Dr. Latham on, 674
Bright's Disease of the, Dr. Grainger Stewart on, review, 232
Sir W. Gull and Dr. Sutton on the pathology of, 628, 669, 688
sphygmographic tracings in a case of, 342
"Killed in the crowd," 290
King, Dr. query on tinnitus aurium, 731
King's College Hospital, reports of cases treated at, 39, 159, 598
Knee, amputation through the, cases of, 252, 513, 626
excision of, sinuses following in a case of, 159
Knight, Dr. Morrison, death of, 528
Knott, Mr. W. P. death of, 416

L

Labium, warty growths of the, case of, 96
recurrent abscess of the, 541
Labour, after long discharge of liquor amnii, Dr. Duncan on, 725
Langan *v.* the Great Western Railway Company, 544
Laryngeal nerves, Dr. Navratil on the functions of the, 683
Laryngismus stridulus, cod-liver oil in, 28
Larynx, contraction of submucous tissues of the, case of, 311
Lasègue, Professor, "clinical exercises" of, 103
Latham, Dr. on teichopsia, 359
on uræmic poisoning in kidney disease, 674
Laugier, Professor, obituary notice of, 249
Lawson, Dr., Sciatica and Lumbago, notice, 498
Laycock, Professor, on the anomalous conditions of the external ear, 320
Lead-poisoning, with amaurosis, case of, 685
"Learned mistakes," verses by "C. A. F." 240
Leeds, Dr. Robinson's sanitary report on, 346
Leeds General Infirmary, report of cases treated at the, 97, 224
Legg, Dr., Treatise on Hæmophilia, review, 263
Legrand du Saulle, Dr. on bromide of potassium in epilepsy, 318
Lemurs, digestive organs of, Professor Flower on the, 561
Leprosy of the middle ages, Mr. Gaskoin on, 485
Letheby, Dr., annual report of, on the City of London for 1870-71, 494
on the present epidemic of small-pox, 635
reports of, on the London water, *vide* Water
Lever, Charles, obituary notice of, 676
Lévy, M. Michel, obituary notice of, 354
Liége, table of fees established at, 662
Lienteric diarrhœa in children, Dr. E. Smith on, 656
Lip, epithelioma of, case of, 539
Lithotomy, Mr. Samuel Smith's operations for "J. F." on, 89
Mr. Roche on, 118
fatal case of, 311
for a very large stone, case of, 311
Lithotrity, cases of, 97, 657
Liveing, Dr. on erythematous lupus, 459
Liver, modifications of the form of the, in the mammalia, Professor Flower on the, 292
anatomy of the, in anthropomorphous apes, 337
subacute red atrophy of the, case of, 234
Liverpool, letters from, 82, 326, 354, 497, 611
small-pox at, 316

Liverpool Southern Hospital, report of cases treated at the, 344
account of the new, 611
Local Government Board, analysis of the Report of the, 580, 665
London, vital statistics of, 29, 59, 90, 120, 149, 181, 211, 241, 272, 301, 332, 362, 389, 418, 440, 479, 506, 532, 560, 590, 618, 647, 676, 704, 731, 750
and large cities, births and deaths in, in 1871, 352
Dr. Letheby's report on the sanitary state of, in 1870-71, 494
reports on the waters of, *vide* Water
London Hospital, reports of cases treated at the, 40, 159, 223, 251, 431, 513
the dispute of Messrs. Maunder and Rivington at the, 579, 665
the case of accidental poisoning at the, 497
London University, criticism on the, by Dr. Lyon Playfair, 133
presentation-day at the, 576
Lorimer, Dr. John, death of, 271
Lostorfer, Dr. on the diagnosis of syphilis by the microscope, 107
discoveries of, disputed, 496
Professor Stricker on the corpuscles of, 549, 583, 640
Lowe, Mr. fallacies of, respecting Professorships, 660
Lowndes, Mr. on infanticide, 498
Lung, gangrenous abscess of the, Dr. Williams on, 243
vesicular emphysema of the, Dr. Williams on, 705
Lupus, erythematous, Dr. Liveing on, 459
Lying-in Hospital, report on the Dublin, 171
Lymphadenoma, Mr. H. Arnott on, 367
Lyons, Medical Congress projected at, 375
births and deaths at, in 1865-70, 514
opposition to the use of chloroform at, 716

M

MacCormac, Mr. case of excision of the elbow and shoulder, 384
Dr., Consumption and Air Rebreathed, notice, 469
Macdonnell, Dr. J. W. death of, 702
McMaster, Surgeon Valentine Munbee, obituary notice of, 115
McNab, Dr. W. R. on paraffined paper as a dressing, 23
Macpherson, Dr., Annals of Cholera, account of, 433
Macturle, Dr. William, obituary notice of, 328
Madge, Dr. on a case of uterine fibroids complicating pregnancy, 725
Mahomed, Mr. on the sphygmograph, 63, 128, 220, 250, 340, 427, 569
Malignant growths, Mr. H. Arnott on the pathology of, 33, 151, 307, 367, 456
Malarious disease, latent, Dr. Christie on, 550
Malpraxis, action for alleged, at Melbourne, 255, 524
action for, 740
Mammalia, Digestive Organs of the, Professor Flower's lectures on the, *vide* Flower
Marylebone (St.) sanitary condition of, 148, 730
Mary's (St.) Hospital, reports of cases treated at, 96, 369
Masfen, Dr. Edward, of Stafford, obituary notice of, 526
Maudsley, Dr. "Body and Mind" of, criticised by Dr. Hartsen, 170
Maunder, Mr. cases of, at the London Hospital, 159, 251
cases of lumbar colotomy, 223
vide London Hospital
Mavor, Mr. on morphia *plus* chloroform, 383
Maxillary bones, excision of, plugging the trachea during, Dr. Junker on, 510
Meadows, Dr. case of ventral or abdominal pregnancy, 23
May, Assistant-Surgeon William Gormley, death of, 728
Meat extracts, Dr. P. Müller on the physiological effects of, 101
expressed juice of, 387
Meath Hospital, Dublin, distribution of prizes at, 559
Medical Act, convictions under the 40th section of the, 545, 714, 723
operation of the, in the colonies, 361
decision under Section 31 of the, 700
Medical Benevolent College (Royal), observations on the report of the, 571
Medical and Chirurgical (Royal) Society, reports of meetings of the, 113, 177, 265, 384, 412, 473, 550, 628, 641, 669
annual meeting of the, 326
Medical clubs, resolution at Norwich concerning, 28
Medical Council of Education, observations on the session of the, 251, 295, 312
minutes of the meetings of the, in 1872, 231, 273
the President's address to the, 261
debates at the, on the Conjoint Examining Boards, 273, 288
Medical Council, letter of Dr. Christison to the, 279
debate on the special education of women at the, 287
report of the finance committee to the, 289
Medical honours, "A Correspondent" on the award of, 104
Medical evidence, observations on, 687
Dr. Collyer on, 210
Professor Bernays on, 225, 235
Medical Practitioners and chemists, *vide* Chemists
Medical Practitioners, forced evidence of, 748
Medicine, Dr. Williams' Sketches of Success and Failure in, 1, 61
Dr. Gairdner on preventive *v.* curative, 630
Professor Stokes's address on State, 440
Dr. C. J. B. Williams on Success and Failure in, *vide* Williams
Medicines, decision as to Surgeons recovering for, 700
Medullary tumour of the femur, Mr. Bulley's case of, 538
Melanotic growth in a mole, 160
Melbourne, letters from, 524, 667
bad sanitary state of, 107
phthisis in, Mr. Thomson on, 23, 148
Diphtheria Commission at, 525
action for malpraxis at, 255, 524
Medical spiritualism at, 374
Professional ill-feeling in, 463, 667
Meningocele, specimen of, 385
Menorrhagia of warm climates, the sponge-tent in, 414
Michael, Mr. on future sanitary legislation, 54
Microscopes, description of Hartnack's, 372
Mr. Collins on cheap London, 478
Middlesex Hospital, reports of cases treated at the, 190, 310, 459, 512, 598, 626
Midland Medical Society, report of meeting of the, 387
Midwives, employment of, observations on the, 687
examinations of, at the Obstetrical Society, 175
objections of Birmingham Practitioners to the, 687
Midwifery in Italy, Dr. Monteverdi on, 463
Milan, epidemic of small-pox at, 167
Military statistics, Dr. Gordon on, 177
Service, shortsightedness in relation to, 194
Militia Surgeons, proposed association of, in Ireland, 689
Milk, how to freeze, 88
Miller, Dr. Patrick, obituary notice of, 25
Milward, Mr. note on the Public Health Bill, 411
Mines Regulation Bill, account of the, 434
Mingaye, Mr. Charles Paget, death of, 56
Mitral stenosis, Dr. Silver on, 309, 338
Mr. Mahomed on the sphygmograph in, 560
Molluscum contagiosum, cases of, 612
Monkeys, *vide* Apes
Monteverdi, Dr. on the state of midwifery in Italy, 462
on quinine as compared with ergot, 466
Moore, Mr. F. H. death of, 116
Morphia, subcutaneous injection of, with chloroform, 350
Mr. Mavor on the, 383
Morris, Mr. on soil-pipes and sewerage, 89
Moxon, Dr. on the "Medical Declaration" respecting alcohol, 21
on the pathology of tubercle, 267
and Mr. Durham, case of aneurism of the aorta, 473
Müller, Dr. P. on the physiological effects of meat extracts, 101
Dr. E. on military revaccination, 634
Murchison, Dr. note on the Orthopædic Hospital, 355
Murray, Dr. W. on the cure of internal aneurism, 642
Muscle, psoas parvus, Mr. Perrin on the, 202
subclavius and omo-hyoid, Mr. Perrin on, 485
Muscles, ventral, scheme of the, 742
Myology (human), abstract of Professor Humphry's lectures on, 742
Myopia in relation to military service, 194
Myxomatous cysts treated by ligature, 312

N

Nævus treated by ligature, case of, 96
symmetrical, case of, 130
Nail, in-growing, M. Vernueil on the causes of, 344
in relation to adolescence, M. Gosselin on, 467
Nature-worship, 8
Navratil, Dr. on the functions of the laryngeal nerves, 683
Navy, report on the health and diseases of the, in 1870, analysis of the, 11, 42
Medical Department of the, successful candidates for the, 210
Neale, Dr. on irrigation in hyperpyrexia, 172
Necrosis with pyæmia, case of, 4, 69
from sloughing ulcer, case of, 130
of the face from phosphorus, 4
of trochanter major, case of, 159
of the humerus, case of, 190
Negligence, actions for, 316, 740
Nerve, spinal, excitability of a, Dr. Rutherford on the, 177
Nerve, lingual, paralysis of, after a stab, 431
Nerves, laryngeal, Dr. Navratil on the functions of the, 683
New England, question of intemperance in, Dr. Bowditch on the, 492
Newman, Dr. on a case of ovariotomy, 184
on a case of Cæsarian section, 699
New York, bad sanitary state of, 108
new law against abortion and quackery in, 109
the regular Medical Schools of, 357
Nicholls, Dr. on abuses at the Chelmsford Dispensary, 137, 144
Nichols, Dr. T. L., How to Cook, review, 515
Nicholson, Dr., Introduction to Study of Biology, notice, 581
Niemeyer, Professor, Treatment of Cholera, by Latham, review, 352
Northampton Provident Dispensary, results of, in 1871, 162
Nyeticebinæ, digestive organs of, Professor Flower on the, 563

O

Obstetrical Society, reports of meetings of the, 23, 174, 269, 412, 554, 699, 724
examination of midwives at the, 175
observations on the, 686
opposition of the Birmingham Practitioners to the, 661
O'Connell, Dr. on clinical teaching at Vienna, 578
O'Connor, Arthur, observations on the trial of, 464
Odling, Dr. on indium, 101
Mr. George, obituary notice of, 527
Œsophagus, stricture of, gastrotomy in, Mr. T. Smith on a case of, 724
Ogle, Dr. John, on the temperature in tetanus, 84 and Mr. Lee, case of tracheotomy for removal of a foreign body, 113
Dr. William, case of removal of a cervical vertebra, 113
Ollier, Professor, on excisions in gunshot fracture of the humerus, 231
on dressing by *occlusion inamovible*, 547
Omentum, description of the, by Professor Flower, 292
Omo-hyoid muscle, Mr. Perrin on the, 485
Omphalomesenteric duct, intestinal obstruction from persistence of, 412
Operations, varieties of fever which follow, Mr. Wells on the, 93, 483
antiseptic dressings after, Messrs. Wells and Couper's cases of, 707
during the puerperal state, discussion on, 437
Ophthalmic Hospital (the Royal), cases treated at the, 370, 711
Ophthalmoscopic observation, Dr. Vance on, 731
Orang-outang, digestive organs of the, Professor Flower on the, 392
Order of merit and hereditary honours, 57
Organic fluids, prevention of animalcules in, Dr. Doogall on the, 495
Orthopædic Hospital, discord at the, 322
observations on the, 461, 490
note of Lord Abinger on the, 373
notes of Mr. Brodhurst on the, 444, 526
Orton, Dr. on an outbreak of typhoid, 458
Osborn, Dr. on the swine nuisance, 419
on disappearance of small-pox in Paris, 749
Osteo-sarcoma of the femur, case of, 553
Ovarian disease, complicated by ascites, Dr. Duncan on a case of, 191, 541
Diagnosis from uterine, discussion on, 414
Ovaries, absence of the, cases of, 724
Ovariotomy, varieties of fever following, Mr. Wells on the, 93
Professor Martin's cases of, 555
Dr. Newman's case of, 184
during pregnancy, case of, 24
changes in the pedicle after ligature in, 174
in relation to suppurating cysts, Mr. Holmes on, 384
Oxford, progress of co-operative teaching at, 658

P

Pain, genesis of, Dr. Chapman on Dr. Radcliffe's theory of the, 66
Dr. Radcliffe on the meaning of, 153
Paine, Dr. Martin, Physiology of the Soul and of Instinct, review, 609
Palate, cleft, case of, 159
Palmer, Mr. William Grimes, death of, 271
Pancras (St.) guardians and post-mortem examinations, 361, 576
Pansement ouaté, M. Alphonse Guérin's, 406
par occlusion inamovible, M. Ollier's, 547
Paracentesis thoracis in pleurisy, Dr. Williams on, 421
in children, Dr. Playfair on, 174
Paraffined paper as a dressing, Dr. McNab on, 23
Paralysis of taste and smell after concussion, 642
Paris, letters from, 354, 381, 409, 469, 523, 582, 602, 639, 720, 743
Medical statistics of, in 1865-69, 530
rate of mortality in, 582
cessation of small-pox in, 408, 661, 749

Paris, Medical Faculty of, programme of lectures at the, 381
students' row at, *vide* Dolbeau
agrégés of the, mode of choosing, 524
examinations at the, for the D.M.P. 524
vide France
Park, Dr. James Hall, obituary notice of, 556
Parliamentary intelligence, 200, 231, 298, 351, 376, 439, 469, 493, 548, 579, 634, 663, 717, 741
Parturition, progress of the science of, Dr. Duncan on the, 122
Paterson, Mr. Robert Haldane, obituary notice of, 414
Pathological Society, neglect of "pathology" at the, 225
reports of meetings of the, 53, 82, 175, 233, 267, 357, 385, 444, 584, 722
Patterson, Dr. on subcutaneous injection of morphia in cholera, 95
experiments with cholera-matter, 472
Deputy-Inspector, Dr. John Herbert, obituary notice of, 614
Pearce, Mr. Charles Wortham, death of, 26
Pellagra, dietetic causes of, Mr. Gaskoin on the, 584
Pelvis, curves of the developed female, Dr. Duncan on the, 246
Pemphigus, paroxysmal, Dr. Russell on a case of, 252
Pepsin porci, Dr. Beale on the preparation and uses of, 152
Pereira's Materia Medica, abridged, review, 443
Pericarditis, rheumatic, cases of, 487
Perimetritis, adhesive, Dr. Duncan on a case of, 398
Perineum, laceration of the, Mr. Bryant's cases of, 540
Dr. Matthews Duncan on, 627
Peritoneum, folds of the, Professor Flower on the, 291
Peritonitis, turpentine as an external application in, M. Vidal on, 231
Perivascular system of the brain, Mr. Wagstaffe on the, 698
Perles of Dr. Clertan, of Dijon, 726
Perrin, Mr. on the epicondyloid and epitrochlear foramina, 37, 308
on the psoas parvus muscle, 202
on the subclavius and omo-hyoid muscles, 485
Pertussis, chloroform as a remedy in, Dr. Williams on, 243
Peter's (St.) Hospital, cases treated at, 311, 656
Philadelphia, epidemic of small-pox at, 109, 410, 662
letters from, *vide* America
Phillips, Dr. J. on retroflexion of the uterus as a cause of abortion, 269
Phosphorus-necrosis of the face, with pyæmia, case of, 4
Phthisis, results of climate in the treatment of, Dr. C. T. Williams on the, 550
prevalence of in Melbourne, Mr. Thomson on the, 23, 148
the forms of, Dr. Powell on, 155, 365
Physicians, Royal College of, pass-lists of the, 145, 237, 527
minutes of the proceedings of the, 739
and Surgeons, Royal Colleges of, Edinburgh, pass-lists of the, 557
Physicians, King and Queen's College of, in Ireland, pass-lists of the, 85, 329, 358, 502, 614, 728
Physiology, teaching of in common schools, 514
Pictet, M. (of Geneva), obituary notice of, 388
Piebald child, Mr. Reilly on a, 143
Pierpoint, Dr. Nathaniel, Bradford, death of, 237
Pityriasis rubra, Dr. Purdon on a case of, 473
Dr. Spender on a case of, 722
Placenta, anatomy of, Dr. Braxton Hicks on the, 699
Plague in Persia, Dr. Castaldi on the, 258
Plaster of Paris bandages, removal of, 389
Playfair, Dr. Lyon, criticisms of, on the London University, 133
Pleurisy, Dr. C. J. B. Williams on, 333
paracentesis in, Dr. Williams on, 421
effusion from, treated by thirst, case of, 5
Pleuro-pneumonia, consolidation of the lung from, Dr. C. J. B. Williams on, 533
Pneumonia, pathology of, Dr. C. J. B. Williams on the, 121, 533
treatment of, Dr. C. J. B. Williams on the, 183
Podrazki, Professor, on gunshot wounds of the brain, 199
Polypus, uterine, case of, 699
Pons Varolii, tumour of the, Dr. Broadbent on a case of, 554
Ponton, Mr., The Beginning: its When and its How, review, 609
Poor-law Medical Officers, pensions of, Mr. Colville on the, 205, 479
Mr. Porter on the, 264
question of eligibility of, as guardians when pensioned, 690
as Officers of Health, objections to, 325, 356
Professor Stokes on, 440
"A Poor-law Medical Officer" on, 463
Dr. Rogers on, 325, 356, 698
Poor-law Medical Officers as Officers of Health, Dr. Woodward on, 698, 721
Dr. J. W. Barnes's note on, 721, 744
"Anti-Muddle" on, 744
Association of, resolutions of the, 408, 636
in Ireland, 668
Poor-law Medical Service, resolutions for amendment of the, 408
in Ireland, described, 403
Bill for conferring pensions on the, 640
Pope *v.* Maul, 316
Popham, Dr. William Home, death of, 26
Popliteal aneurism, treated by compression and ligature, case of, 39
tourniquet for compression in, Mr. Bulley on a, 95
discussion on the treatment of, at the Clinical Society, 234
Mr. Bryant on cases of, 733
Porter, Mr. on Poor-law Medical Officers' pensions, 264
Powell, Dr. Douglas, on the forms of phthisis, 155, 365
Practice, irregular, specimen of, 600
Practitioners, encroachments of chemists on, *vide* Chemists
Pregnancy, hydrorrhœa during, Dr. Beck on a case of, 725
complications of, Dr. Hogg on the, 597
uterine fibroids complicating, 725
extra-uterine, discussion on the treatment of, 23
Mr. M. Johnson's case of, 658
spurious, Sir James Simpson on, 581
Prescribing, illegal, decision concerning, 134
Prescriptions, payment for, 506
Prestwich, Dr. on cod-liver oil in laryngismus, 28
Mr. on contamination of water-bearing strata, 465
Prichard, Dr. William, death of, 388
Prisons of Bengal, Dr. Mouat on the, 316
Pritchard, Dr. William, obituary notice, 415
Procter, Dr. Thomas Benjamin, obituary notice of, 236
Profession, "Sexagenarius" on the disestablishment of the, 641
Professorships, Mr. Lowe's fallacies concerning, 660
Prostate gland, enlargement of the, Mr. Quain on, 566, 623
Protoplasmic life, Dr. Calvert on agents opposed to, 176
Pryce, Dr. Charles, death of, 26
Psammoma, Mr. Henry Arnott on, 308
Psoas parvus, Mr. Perrin on the, 202
Psychological Medicine, Dr. Sheppard's lecture on, 535
Pterygium, treatment of, by transplantation, 711
Public Health Bill, *vide* Health
Puerperal state, question of performing operations in the, 437
Pulse, *vide* Sphygmograph
Purdon, Dr. on a case of pityriasis rubra, 473
Purgatives, utility of, in impending fever, Dr. Beale on the, 91
Putrefaction, prevention of, Dr. Calvert on the, 176
Dr. Dougall on the, 495
Pyæmia before opening an abscess, case of, 69
discussion on, at the Pathological Society, 542, 581
and tuberculosis, alliance between, Dr. Williams on the, 566
the synovial membranes in, Mr. Hamilton on, 641
Pyuria in children, Dr. Jordan on, 539

Q

Quain, Dr. lectures on Diseases of the Muscular Walls of the Heart, 351, 394, 423
Mr. on enlargement of the prostate, 566, 622
Queensland, vital statistics of, 46
Queen's University of Ireland, pass-list of the, 748
Quinine, recent researches on the properties of, 135
effects of, as compared with ergot, 466
Quinquina (*vin de*), Lambert's, notice of, 329

R

Rabuteau, M. on the physiological properties of the chlorides, 15
on bread made with sea-water, 148
Radcliffe, Dr. on the meaning of pain, 153
Dr. Chapman on the theory of pain of, 66
Mr. J. N. on cholera prospects, 499
on the diffusion of cholera in Europe, 736
Railway companies, liabilities of, for Medical aid 544
Ranula, fatty tumour simulating, Mr. Churchill's case of, 160
Rayner, Mr. William, obituary notice of, 178
Reade, Dr. on syphilitic quotidian ague, 511
Reading Pathological Society on the defects of Medical jurisprudence of insanity, 265
Rectum, obstruction of the, lumbar colotomy in, Mr. Bryant on, 564, 677
Redard, M. on depression of temperature in gunshot wounds, 103
Red Cross, Operations of, in 1870, criticised, 548
Reilly, Mr. on a piebald child, 143
Respirator, Nightingale's invisible, 556
Revaccination, Dr. Letheby on, 636
military, Dr. E. Müller on, 634
Reynolds, Dr. Russell, Clinical Uses of Electricity, review, 263
Rheumatic fever, hyperpyrexia in, Dr. Weber on, 386
with pericarditis and pleurisy, Dr. Russell's cases of, 487
Richard, M. Adolphe, obituary notice of, 720
Richardson, Dr. Lea, death of, 26
Dr. Joseph, Handbook of Medical Microscopy, notice, 719
Ritchie, Dr. on a case of athetosis, 342
Rivington, Mr. note on the London Hospital scandal, 698
vide London Hospital
Robertson, Dr. Alexander, on apparatus for heat and cold, 55
Robinson, Mr. Henry Charles, obituary notice of, 85
Robur, account of, 115
Roche, Mr. on lithotomy-knives, 118
Rogers, Dr. notes on Poor-law Medical Officers of Health, 325, 356, 698
Rotterdam, letter from, 354
Rowand, Dr. on copaiba in small-pox and scarlatina, 206
Rumhall, Mr. James Quilter, obituary notice of, 727
Russell, Dr. on a case of aneurism of the aorta, 6
on a case of paroxysmal pemphigus, 252
cases of pericarditis and pleurisy in rheumatism, 487
Rutherford, Dr. lectures of, at the Royal Institution, 164, 408
on the excitability of spinal nerves, 177
on the innervation of the heart, 408

S

St. John, Mr. Charles, death of, 179
Sahlen and Brown's Handbook of Law and Lunacy, notice, 687
Salivary glands of the mammalia, Professor Flower on the, 218
Salter, Mr. notes on "Poisoning made Easy," 239, 331
Sanderson, Dr. on pyæmia, 584
Sanitary legislation, future, Mr. Michael on, 54
Lord Derby on, 497
Mr. Stansfeld's Bill for, *vide* Health (Public)
Sanitary state of Ireland, the unsatisfactory, 228
Sarcoma, pathological characters of, Mr. Arnott on, 33, 155, 307, 367
Scarlatina, copaiba in, Dr. Rowand on, 206
Schools, common, teaching of physiology in, 514
hygiene of, Dr. Guillaume on the, 711
French, teaching of hygiene in, 520, 717
Scissors, angular, Dr. H. Smith's, 414
Scotland, registration returns of, 209, 477, 646, 730
the Conjoint Examination Scheme as applied to, *vide* Examination
Scrivener, Dr. on the yellow fever of Buenos Ayres, 187
Scrotum, elephantiasis of the, Dr. Fayrer on a case of, 486
Scurvy, cases of, 657
Seal, digestive organs of the, Professor Flower on the, 679
Seamen's Hospital, Greenwich, report of cases treated at the, 343, 656
Sea-water, use of, in making bread, 148
Septicæmia, discussion on, at the Pathological Society, 585
Seville orange syrup, Buckle's, 415
Sewage farm, the Eton Wick, 674
Sewage, disposal of, in Holland, 354
Sewers and soil-pipes, Mr. Morris on, 89
Shark-bite, Dr. Fayrer's case of, 683
Sheppard, Dr. lecture on Psychological Medicine, 535
Shortt, Dr. experiments of, with the cobra, 730
Shoulder, excision of, Mr. MacCormac's case of, 384
Mr. Hulke's case of, 598
Siemens, Mr. on the measurement of temperature by thermo-electricity, 348
Silver, Dr. on mitral stenosis and cardiac pathology, 309, 338
Simiidæ, *vide* Apes
Simon, Mr., Report on Public Health of 1871, analysed, 665
Simpson, Sir James Y., Works of, on Anæsthesia, review, 522
Lectures on Diseases of Women, review, 580
Skin, human, books bound in, 361
grafting, case of, 431
diseases of, occupations in relation to, Mr. Squire on, 204
soap in relation to, 466
in Hospital practice, Mr. Squire on, 389
endemic diseases of, in India, Drs. Fox and Farquhar on the, 161
Skull, fracture of, cases of, 343
Slaughter-houses in the metropolis, the question of, 737

Sleight, Mr. Robert Leadem, death of, 728
Small-pox, jottings concerning the progress of the epidemic of, 15, 45, 76, 102, 136, 165, 199, 229, 259, 288, 317, 348, 375, 405, 437, 467, 492, 519, 546, 578, 602, 634, 661, 690,
Mr. Simon on the epidemic of, in 1871, 665
at the London Small-pox Hospital, report on the, for 1871, 168
facts elicited by the epidemic of, Dr. Letheby on the, 635
epidemic of, in Belgravia, Dr. Aldis on an, 498
returns of, in 1872, 529
at Birmingham, 382
at Liverpool, 316
at Wolverhampton, 47
at Dublin, 172, 405, 437, 519, 546, 645, 661
cessation of, at Paris, 408, 661, 749
at Berlin, 28
at Philadelphia, 109, 410, 662
at Milan in 1870-71, 167
at Geneva, 260
at Trinidad, 171, 263, 444, 633
duties of guardians of the poor relative to, 575
action for exposure to the infection of, 103, 137
in utero, Mr. Townsend on, 627
elimination of, "M.B." on the, 206
Dr. George Johnson on the, 233
Dr. E. Turner on the, 264
"S." on the, 265
and cholera, analogy between, Dr. G. Johnson on the, 299
copaiba in the treatment of, Dr. Rowand on, 206
antiseptic treatment of, Dr. Foot on the, 400
Dr. Bakewell on the treatment of, in the West Indies, 411
on the pathology and treatment of, 709
vide Vaccination and Revaccination
Smith, Dr. Christopher, Mental Capacity in relation to Insanity, etc. notice, 443
Dr. Eustace, on lienteric diarrhœa in children, 656
Dr. W. Henry, death of, 388
Dr. Angus, researches of, in chemical climatology, criticised, 659
Mr. Henry, note on the late Mr. Wade, 143
Mr. Thomas, case of gastrotomy in stricture of the œsophagus, 724
Society, *vide* Clinical, Epidemiological, London, Medico-Chirurgical, Midland, Obstetrical, and Pathological
Southey, Dr. on intestinal obstruction from persistent omphalomesenteric duct, 412
Soap as a cause and preventive of skin disease, 466
Spectrum analysis applied to practical Medicine, Dr. Waterman on, 46
Speech, cerebral mechanism of, Dr. Broadbent on the, 265
Spence, Professor, operations performed by, in 1871, 430
case of femoral aneurism cured by compression, 625
on false aneurism, 735
Spencer, Dr. Laurence Catlow, obituary notice of, 556
Spender, Dr. on a case of pityriasis rubra, 722
Sphygmograph, physiology and clinical use of the, Mr. Mahomed on the, 62, 129, 220, 250, 340, 427, 569
Spinal column, removal of the body of a cervical vertebra of the, 113
tracheotomy in a case of disease of the, 40
Spiritualism (Medical) at Melbourne, 374
Spleen, case of disease of the, with wide range of temperature, 723
Squire, Mr. B. on occupation in relation to skin disease, 204
Photographic Clinic, notice of, 380
on skin diseases in Hospital practice, 389
Staples, Staff Assistant-Surgeon, on ligature of the subclavian, 186
State Medicine, address of Professor Stokes on, 440
Sterility from inflammation of the uterus, Dr. Bantock on, 325
Stevenson *v.* Gliddon, 700
Stevenson, Dr. T. on Dr. Hoffmann's paper on the urine, 110
Steward, Mr. William, obituary notice of, 643
Stewart, Dr. Grainger, Bright's Disease of the Kidney, review, 232
Dr. A. P. notes of, on a deputation to Mr. Stansfeld, 550
Stimulants in inflammation, Dr. Beale on, 592
Stokes, Professor, discourse of, on State Medicine, 440
Dr. William, address of students to, 136
Mr. Thomas, on the "Declaration" on alcohol, 88
on the plea of insanity, 119, 148
Stomach, position of, in the abdomen, Professor Flower on the, 291
perforating ulcer of, Dr. Druitt's case of, 220
ulcer of the, with hæmatemesis, Dr. Broadbent on, 369
Strabismus, convergent, Mr. Carter's case of, 83
Straker, Dr. Adolphus William, death of, 237
Strange, Dr. note of, on the Worcester Infirmary, 612
Dr. Robert (of Naples), death of, 673
Strasburg, the new University of, 260
Stricker, Professor, on Lostorfer's corpuscles, 569, 583, 640
Stricture, impassable, Mr. Teevan on the treatment of, 413
Stromeyer, Dr., English recollections of a German Surgeon, 604
Strychnia as a remedy in vomiting, 210
poisoning with, trial of Miss Edwards for, 71, 100, 111
danger respecting, Mr. Salter on the, 239
process for detection of, Dr. Calvert's, 598
Stuart, Mr. John, death of, 358
Subclavian, ligature of the, Staff Assistant-Surgeon Staples on, 186
Subclavius and omo-hyoid muscles, Mr. Perrin on the, 485
Suicide in France, M. Decaisne on the causes of, 16
Surgeons, decision as to the right of charging for medicines, 700
Surgeons, Royal College of, of England, pass-lists of the, 86, 115, 144, 415, 446, 475, 502, 527, 557, 586, 615
for the fellowship, 615, 701
examination questions at the, 417, 477, 501, 588, 646
severity of the examinations at the, "A Father" on the, 721
minutes of the proceedings of the Council of the, 100, 195, 463, 491, 601, 729
amended dental examinations at the, 746
Surgeons, Royal College of, Edinburgh, examination questions at the, 418, 557
Surgical affections in relation to adolescence, M. Gosselin on, 467
fever after, Mr. Wells on varieties of, 93, 483
Surnames, compounded, 749
Sutton, Dr. on the pathology of Bright's disease, 628, 669, 688
Swallowing coins, cases of, 540
Synovial membranes in pyæmia, Mr. Hamilton on the condition of the, 641
Syphilis, accidental inoculation of, case of, 191
in the navy in 1870, 42
quotidian ague from, Dr. Reade's case of, 511
microscopical appearances of the blood in, Dr. Lostorfer on the, *vide* Lostorfer
treatment of, by mercurial fumigation, Mr. Churchill on the, 190
by hypodermic injections, Dr. R. W. Taylor on the, 438

T

Tait, Mr. Lawson, on the "Declaration" concerning alcohol, 88
Tanner, Dr., Memoranda on Poisons, review, 323
Tarsalgia in relation to adolescence, M. Gosselin on, 467
Tarsius, digestive organs of, Professor Flower on the, 563
Taste and smell, paralysis of, after concussion, 642
Tattooing, universal, case of, 139
Taylor, Mr. William, death of, 728
Ten-drunkenness, Dr. Arlidge on, 603
Teevan, Mr. on the treatment of impassable stricture, 413
on a case of lithotrity, 657
Teichopsia, Dr. Latham on, 359
Temperature, measurement of, by thermo-electricity, 348
animal, depression of, in gunshot wounds, 103
wide range of, with disease of the spleen, 723
in tetanus, Dr. Ogle on the, 84
Testis, chronic enlargement of the, case of, 513
fistulæ of the, discussion on the treatment of the, 78
Tetanus, idiopathic rheumatic, case of, 540
temperature in, Dr. Ogle on the, 84
intramuscular injection of morphia in, 439
chloral in, 249, 388
Thanksgiving-day, observations on the late, 254
Thermo-electricity, measurement of temperature by, 348
Thermometry, clinical, Dr. Bulkley on, 520
Thomas, Mr. John, obituary notice of, 727
Thomas's (St.) Hospital, reports of cases treated at, 6
Medical School, account of the physiological laboratory of the, 17
distribution of prizes at the, 747
Thompson, Mr. Joseph, death of, 358
Thomson, Mr. William, on the prevalence of phthisis in Melbourne, 23
Thought, cerebral mechanism of, Dr. Broadbent on the, 265
Thrombosis of the internal carotid, M. Verneuil on a case of, 138
Thursfield, Mr. William, death of, 271
Tichborne case, observations on the, 314
the external ear in relation to the, 320
Dr. Wilks on the physiological relations of, 355
Tinnitus aurium, Dr. King's query concerning, 731
Todd, Dr. stimulant practice of, criticised, 72
Dr. F. Winslow on the, 110
vide Beale
Tongue, congenital enlargement of the, specimen of, 385
case of, 386
Tourniquet for compression of aneurism, Mr. Bulley on a, 95
Townsend, Mr. Charles, obituary notice of, 207
Mr. T. S. on incubation of small-pox in utero, 626
Toxicology, precautions in investigations in, Dr. Bernays on the, 225, 235
Trachea, plugging the, Dr. Junker on, 510, 595
Tracheotomy in a case of prævertebral abscess, 40
for removal of a foreign body, Dr. Ogle and Mr. Lee on a case of, 113
Transfusion, Dr. Aveling's apparatus for, 554
"Transportation by order of Medicine," 601
Trendelenburg, Dr. on the tracheal tampon, 595
Trinidad, epidemic of small-pox in, 171, 263, 444, 633
Trustram, Mr. Charles, death of, 747
Tubercle, histological pathology of, Dr. Moxon on the, 267
Tuberculosis and pyæmia, alliance between, Dr. Williams on the, 566
Turner, Dr. E., on the small-pox analogies of cholera, 264
Mr. J. W. on alcohol inconsiderately prescribed, 52
Typhoid fever, Dr. Orton on an outbreak of, 458
Typhus, delirium tremens simulating, case of, 130
statistics of, Dr. Hogg on the, 173

U

United States, *vide* America
University College Hospital, reports of cases treated in the, 68
Uræmic fever, Mr. Wells on a case of, 483
poisoning in disease of the kidney, Dr. Latham on, 674
Urine, recent researches on the, Dr. Karl Hoffmann on the, 76
criticised by Dr. Stevenson, 110
chemical examination of the, Professor Wanklyn on the, 127
Uterus, absence of, cases of, 724
fibroma of the, M. Guéniot on the absorption of, 350
fibrous enlargement of the, treated by ergot, Dr. Brunton on a case of, 25
fibro-cystic disease of the, and of the ovaries, Mr. Bryant's case of, 414
fibroids of the, complicating pregnancy, case of, 725
inflammation of the, as a bar to impregnation, Dr. Bantock on the, 325
procidentia of the, Dr. Matthews Duncan on the operation for, 69
retroflexion of the, as a cause of abortion, Dr. Phillips on, 270
acquired deformities of the, Dr. Hewitt on the, 412
polypus of the, case of, 699
removed by the ecraseur, 6

V

Vaccination, Mr. Dale's action for libel concerning, 346
vide Revaccination
Vaccination Act, instructions for Medical Officers under the, 79
anomalies in the, 575
Vaccination (animal), Dr. Bezeth on the advantages of, 157
results of, at Milan in 1871, 260
Vaccine lymph, glycerined, mode of using, 731
Valparaiso, tyrannical treatment of the Profession at, Dr. Joy on the, 51
observations on the, 77
Mr. Duffy on the, 82
M. Garnier on the, 131
Vance, Dr. on ophthalmoscopic observation, 731
Vaux, Mr. Bowyer, obituary notice of, 556
Veins, admission of air into the, supposed fatal case of, 349
varicose, ergotine injections for, 547
Vena cava, inferior, obliteration of the, from an intrathoracic tumour, 268
Venables, Dr. Robert, obituary notice of, 502
Vermiform appendix, ulceration of the, specimen of, 357
Verneuil, Professor, on thrombosis of the internal carotid, 138
on precocious erysipelas, 547
Vertebra, removal of the body of a cervical, Dr. Ogle on the, 113
Vienna, letters from, 107, 496, 549, 583, 640
clinical teaching at the General Hospital of, Dr. O'Connell on the, 578
Virchow, Professor, account of the new edition of his "Cellular Pathology," 376
Visits, confidential, of Medical men, 748
Vogt, Dr. on ergotine injections for varicose veins, 547

Volunteer Surgeons, objectionable regulations relating to, 698, 741, 743
Vomiting, strychnia in, 210

W

Wade, Mr. Robert, biographical sketches of, 85, 114
note of Mr. Smith concerning, 143
Wagstaffe, Mr. on the perivascular system of the brain, 695
Wallack, Mr. Adoniah, obituary notice of, 745
Walsall, bad sanitary state of, 575
Walsh, Mr. John A. obituary notice of, 328
Walton, Mr. on eczema palpebrarum, 32
Wanklyn, Professor, on the chemical examination of the urine, 127
War, Surgical reports during, Dr. Gordon on, 177
Ward, Mr. Martindale, obituary notice of, 85
Warwickshire strike, observations on the, 400
Water, potable, nitrates in, 136
contamination of strata bearing, Mr. Prestwich on, 465
improved service of, 745
Waterman, Dr. on spectrum analysis applied to practical Medicine, 46
Waters, the metropolitan, composition and quality of the, Dr. Letheby's reports on the, 27, 117, 180, 417, 559, 675
"previous sewage" in, Dr. Bristowe on, 518
in relation to "constant supply," 344
impurity of, Dr. Frankland on the, 137
impurity of, south of the Thames, 316
different opinions as to the purity of, 371
Watson, Sir Thomas, Lectures on Principles and Practice of Physic, review, 18, 49
Mr. Robert Mather, obituary notice of, 556
Rev. John Selby, trial of, for murder, 70
Dr. Collyer on the, 89
Watts, Mr., Supplement to the Dictionary of Chemistry, review, 353
Weber, Dr. Hermann, on hyperpyrexia in rheumatic fever, 387
Webster, Mr. George, death of, 416
Welch, Dr. John Goodwin, death of, 116
Wells, Mr. Spencer, on fever following Surgical operations, 93, 483
and Mr. Couper, cases of antiseptic dressing, 707
West London Hospital, notes of cases treated at the, 684
Westminster General Dispensary, notes of cases treated at the, 160, 190
Whitbread's bottled beer, 637
Wight, Dr. Robert, obituary notice of, 643, 744
Wilks, Dr. on the physiological relations of the Tichborne Case, 355
Williams, Dr. C. J. B., Sketches of Success and Failure in Medicine, 1, 61, 121, 183, 243, 333, 421, 533, 649, 705
Williams, Dr. C. T. on the results of climate in the treatment of consumption, 550
Dr. Philip Henry, death of, 329
Wilmot, Dr. on bleeding in congestion after fever, 22
Wine, more notes on, 493, 636
Winslow, Dr. note of, on Dr. Todd's practice, 110
Witnesses, Medical men as, observations on, 687
vide Medical Evidence
Wolff, A., Zymotic Diseases, notice, 443
Wolverhampton, small-pox at, 47
Hospital, report of cases treated at the, 685
Women, special education of, debate at the Medical Council on the, 287
Doctors at Zurich, Professor Hermann on the, 716
at the Edinburgh University, *vide* Edinburgh
Woodward, Dr. on Poor-law Medical Officers of Health, 698, 721
Workman, Mr. on defects in the Medical jurisprudence of insanity, 264
Worcester Infirmary, Dr. Strange's note on the, 612
Wounds, M. A. Guérin's mode of dressing, 406
M. Ollier on *occlusion inamovible* in, 547
from operation, Mr. Spence's treatment of, 431
from bows and arrows in modern warfare, 573
gunshot, in the ambulance at Juranville, M. Beaunis on the, 16
depression of temperature in, M. Redard on the, 103
detachment of periosteum in, 148
of the brain, Professor Podrazki on, 199
Wright, Dr. G. A. W. death of, 728
Wrist-joint, amputation for disease of the, case of, 684
Wunderlich, Professor, Medical Thermometry, by Seguin, notice of, 353

Y

Yellow fever, prevalence of, in the navy in 1870, 11
of Buenos Ayres in 1871, Dr. Scrivener on the, 187
Yeo, Dr. on paralysis of taste and smell following concussion, 642
Yew-leaves, fatal effects of, 419

Z

Zeissl, Professor, on abortive treatment of bubo, 521

ERRATA.

Page 5, col. 1, line 43, *for* "left side," *read* "right side."
Page 114, col. 1, line 22, *for* "eighty-four," *read* "seventy-four."
Page 609, col. 1, line 53, *for* "maximum," *read* "minimum."
Page 669, col. 2, line 41, *for* "Wells," *read* "Wilks."

LIST OF ILLUSTRATIONS.

1. The Physiological Laboratory at St. Thomas's Hospital, 17
2. Microscopical Characters of Sarcoma, 34
3. Epicondyloid and Epitrochlear Foramina of the Humerus, 37
4. Mr. Mahomed's Sphygmograph, 63
5. Mr. Bulley's Tourniquet for Compression in Popliteal Aneurism, 95
6. Mr. Mahomed's Schema of the Circulation, 129
7. Microscopical Characters of Sarcoma, 151
8. Diagram on a Case of Fibroid Phthisis, 156
9. A new Vaporiser, 190
10. Forceps-Scissors for Ophthalmic Surgery, 208
11. Mr. Mahomed's Analysis of Pulse-tracings, 222
12. Mr. Maunder's Cases of Excision, 251
13. Diagramatic Plan of the Alimentary Canal, 291
14. Diagramatic Plan of the Great Omentum, 292
15. Diagramatic View of the Multilobed Liver, 293
16. Under Surface of the Human Liver, 294
17. Section of Glioma of the Retina, 307
18. Microscopic Characters of Psammoma, 308
19. Abnormal Conditions of the Lobules of the Ear, 320
20. Cæcum and Colon in the Chimpanzee, 336
21. The Liver of the Chimpanzee and the Gorilla, 337
22. Section of a Lymphadenomatous Tumour, 369
23. Liver of the Orang-utan, 393
24. Liver of the *Hylobates lar*, 394
25. Tracings in Valvular Disease of the Heart, 427
26. Liver of *Colobus vellerosus*, 452
27. Liver of *Cynocephalus anubis*, 453
28. Microscopical Characters of Epithelioma, 457
29. Microscopical Appearances in Elephantiasis Scroti, 487
30. Cæcum of Spider Monkey, 507
31. Liver of Spider Monkey, 507
32. Alimentary Canal in *Galago crassicaudata*, 562
33. Alimentary Canal in *Lemur flavifrons*, 562
34. Liver of *Lemur flavifrons*, 562
35. Cæcum of the Ruffled Lemur, 562
36. Enlargement of the Prostate Gland, 567
37. Microscopical Structure of Prostatic Tumour, 569
38. Cæcum of the Arctic Fox, 622
39. Liver of the Dog, 622
40. Enlargement of the Prostate Gland, 623
41. Fœtal Bones passed per Anum, 655
42. Liver of the Sloth Bear, 679
43. Alimentary Canal of the Seal, 680
44. Arnold's Enema Apparatus, 727

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